GE Medical Systems
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Technical Publication

Direction 2219416–100
Revision 6

Revolution™ XQ/i™ System Schematics

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WARNING

- **THIS SERVICE MANUAL IS AVAILABLE IN ENGLISH ONLY.**
- **IF A CUSTOMER'S SERVICE PROVIDER REQUIRES A LANGUAGE OTHER THAN ENGLISH, IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE TRANSLATION SERVICES.**
- **DO NOT ATTEMPT TO SERVICE THE EQUIPMENT UNLESS THIS SERVICE MANUAL HAS BEEN CONSULTED AND IS UNDERSTOOD.**
- **FAILURE TO HEED THIS WARNING MAY RESULT IN INJURY TO THE SERVICE PROVIDER, OPERATOR OR PATIENT FROM ELECTRIC SHOCK, MECHANICAL OR OTHER HAZARDS.**

AVERTISSEMENT

- **CE MANUEL DE MAINTENANCE N'EST DISPONIBLE QU'EN ANGLAIS.**
- **SI LE TECHNICIEN DU CLIENT A BESOIN DE CE MANUEL DANS UNE AUTRE LANGUE QUE L'ANGLAIS, C'EST AU CLIENT QU'IL INCOMBE DE LE FAIRE TRADUIRE.**
- **NE PAS TENTER D'INTERVENTION SUR LES ÉQUIPEMENTS TANT QUE LE MANUEL SERVICE N'A PAS ÉTÉ CONSULTÉ ET COMPRIS.**
- **LE NON-RESPECT DE CET AVERTISSEMENT PEUT ENTRAÎNER CHEZ LE TECHNICIEN, L'OPÉRATEUR OU LE PATIENT DES BLESSURES DUES À DES DANGERS ÉLECTRIQUES, MÉCANIQUES OU AUTRES.**

WARNUNG

- **DIESES KUNDENDIENST−HANDBUCH EXISTIERT NUR IN ENGLISCHER SPRACHE.**
- **FALLS EIN FREMDER KUNDENDIENST EINE ANDERE SPRACHE BENÖTIGT, IST ES AUFGABE DES KUNDEN FÜR EINE ENTSPRECHENDE ÜBERSETZUNG ZU SORGEN.**
- **VERSUCHEN SIE NICHT, DAS GERÄT ZU REPARIEREN, BEVOR DIESES KUNDENDIENST−HANDBUCH ZU RATE GEZOGEN UND VERSTANDEN WURDE.**
- **WIRD DIESE WARNUNG NICHT BEACHTET, SO KANN ES ZU VERLETZUNGEN DES KUNDENDIENSTTECHNIKERS, DES BEDIENERS ODER DES PATIENTEN DURCH ELEKTRISCHE SCHLÄGE, MECHANISCHE ODER SONSTIGE GEFAHREN KOMMEN.**

AVISO

- **ESTE MANUAL DE SERVICIO SÓLO EXISTE EN INGLÉS.**
- **SI ALGÚN PROVEEDOR DE SERVICIOS AJENO A GEMS SOLICITA UN IDIOMA QUE NO SEA EL INGLÉS, ES RESPONSABILIDAD DEL CLIENTE OFRECER UN SERVICIO DE TRADUCCIÓN.**
- **NO SE DEBERÁ DAR SERVICIO TÉCNICO AL EQUIPO, SIN HABER CONSULTADO Y COMPRENDIDO ESTE MANUAL DE SERVICIO.**
- **LA NO OBSERVANCIA DEL PRESENTE AVISO PUEDE DAR LUGAR A QUE EL PROVEEDOR DE SERVICIOS, EL OPERADOR O EL PACIENTE SUFRAN LESIONES PROVOCADAS POR CAUSAS ELÉCTRICAS, MECÁNICAS O DE OTRA NATURALEZA.**

ATENÇÃO

- **ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.**
- **SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEMS, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.**
- **NÃO TENTE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA.**
- **O NÃO CUMPRIMENTO DESTE AVISO PODE POR EM PERIGO A SEGURANÇA DO TÉCNICO, OPERADOR OU PACIENTE DEVIDO A' CHOQUES ELÉTRICOS, MECÂNICOS OU OUTROS.**

AVVERTENZA

- **IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.**
- **SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEMS RICHIEDE IL MANUALE IN UNA LINGUA DIVERSA, IL CLIENTE È TENUTO A PROVVEDERE DIRETTAMENTE ALLA TRADUZIONE.**
- **SI PROCEDA ALLA MANUTENZIONE DELL'APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESO IL CONTENUTO.**
- **NON TENERE CONTO DELLA PRESENTE AVVERTENZA POTREBBE FAR COMPIERE OPERAZIONI DA CUI DERIVINO LESIONI ALL'ADDETTO ALLA MANUTENZIONE, ALL'UTILIZZATORE ED AL PAZIENTE PER FOLGORAZIONE ELETTRICA, PER URTI MECCANICI OD ALTRI RISCHI.**

警告

・このサービスマニュアルには英語版しかありません。
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・このサービスマニュアルを熟読し理解せずに、装置のサービスを行わないで下さい。
・この警告に従わない場合、サービスを担当される方、操作員あるいは患者さんが、感電や機械的又はその他の危険により負傷する可能性があります。

注意:

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- 非 GEMS 公司的维修员要求非英文本的维修手册时，客户需自行负责翻译。
- 未详细阅读和完全了解本手册之前，不得进行维修。
- 忽略本注意事项会对维修员，操作员或病人造成触电，机械伤害或其他伤害。

IMPORTANT! . . . X-RAY PROTECTION

X-ray equipment if not properly used may cause injury. Accordingly, the instructions herein contained should be thoroughly read and understood by everyone who will use the equipment before you attempt to place this equipment in operation. The General Electric Company, Medical Systems Group, will be glad to assist and cooperate in placing this equipment in use.

Although this apparatus incorporates a high degree of protection against x-radiation other than the useful beam, no practical design of equipment can provide complete protection. Nor can any practical design compel the operator to take adequate precautions to prevent the possibility of any persons carelessly exposing themselves or others to radiation. It is important that everyone having anything to do with x-radiation be properly trained and fully acquainted with the recommendations of the National Council on Radiation Protection and Measurements as published in NCRP Reports available from NCRP Publications, 7910 Woodmont Avenue, Room 1016, Bethesda, Maryland 20814, and of the International Commission on Radiation Protection, and take adequate steps to protect against injury.

The equipment is sold with the understanding that the General Electric Company, Medical Systems Group, its agents, and representatives have no responsibility for injury or damage which may result from improper use of the equipment. Various protective material and devices are available. It is urged that such materials or devices be used.

CAUTION: United States Federal law restricts this device to use by or on the order of a physician.

CERTIFIED ELECTRICAL CONTRACTOR STATEMENT

All electrical installations that are preliminary to positioning of the equipment at the site prepared for the equipment shall be performed by licensed electrical contractors. In addition, electrical feeds into the Power Distribution Unit shall be performed by licensed electrical contractors. Other connections between pieces of electrical equipment, calibrations, and testing shall be performed by qualified GE Medical personnel. The products involved (and the accompanying electrical installations) are highly sophisticated, and special engineering competence is required. In performing all electrical work on these products, GE will use its own specially trained field engineers. All of GE's electrical work on these products will comply with the requirements of the applicable electrical codes.

The purchaser of GE equipment shall only utilize qualified personnel (i.e., GE's field engineers, personnel of third-party service companies with equivalent training, or licensed electricians) to perform electrical servicing on the equipment.

DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation "**damage in shipment**" written on **all** copies of the freight or express bill **before** delivery is accepted or "signed for" by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage **MUST** be reported to the carrier **immediately** upon discovery, or in any event, within **14** days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this **14** day period.

Call Traffic and Transportation, Milwaukee, WI (414) 827−3468 / 8*285−3468 **immediately** after damage is found. At this time be ready to supply name of carrier, delivery date, consignee name, freight or express bill number, item damaged and extent of damage. Complete instructions regarding claim procedure are found in Section "S" of the Policy & Procedure Bulletins. 6/17/94

REVISION HISTORY

REV	DATE	REASON FOR CHANGE
0	July 30, 1999	Changed A1 A4 to 2142602. Deleted old CPU board schematic. New CPU board has no schematic. Updated TBS A2 A3 schematic to Rev.1. Updated WLS A6A2A1 and SKL A25. Added TBS A7. Initial product release.
1	Feb. 17, 2000	Updated TBS A2 A3 to Rev. 2. Added SKL A7 (page 2) and SKL A8.
2	Mar. 6, 2000	Included new revision of Top Half schematic.
3	Mar. 29, 2000	Updated A2 A4, S000113, to Rev. 3. Updated 2219402sch (Sec. 43) to Rev. 1.
4	Nov. 22, 2002	Updated part numbers for IDC Module.
5	Feb. 24, 2004	Updated overall schematics drawing 2212195SCH to include connections to new PDU (PCN 238341).
6	May 11, 2004	Updated ADS interconnect drawings to reflect IP Server (Cotello) option.

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CHAPTER 1 − INTRODUCTION

SECTION 1
CONTENT AND ORGANIZATION

This document contains schematics for the assemblies described in its Table of Contents. Schematics are arranged in alpha−numeric order, using the reference designators that are assigned to each assembly. Reference designators are the brief codes that are used to identify and locate the assembly within a system.

Schematics are preceded by a Title Page that contains the schematic number, the reference designator, and the name of the schematic. The title page also usually contains an assembly drawing or physical representation, of the schematic area being described.

Signal Name Lists are provided for interfaces such as: backplanes, wire harnesses, or transition panels, that do not have many active components. These interfaces electrically link the different assemblies together and must be included in the schematics document for proper signal tracing.

SECTION 2
HIERARCHICAL CONVENTIONS

Some schematics contained in this document use a hierarchical design philosophy. This hierarchical philosophy allows for easier schematic representation of complex circuitry. To a typical schematic user however, the hierarchical schematics may seem difficult to follow. So to address this issue, there are listed below, some informative highlights which should help in the understanding of hierarchical design schematics.

− Hierarchical schematics are structured from a high level (ie.,complete system) to a low level (ie., discrete components). In circuit board schematic applications this means that there will typically be a block diagram on the first schematic sheets, which represents the entire circuit board. Then from this diagram, each of the blocks is broken down into the discrete component circuitry.

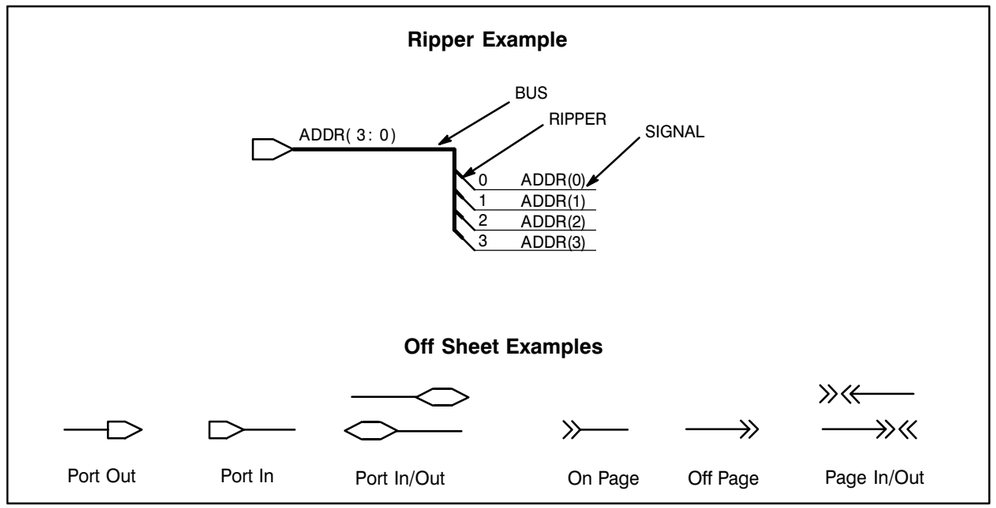
− For individual signal connections, a similar schematic structuring technique is used. At the block diagram schematic level, signals are grouped together into buses, which travel between the blocks. The individual signal connections are first shown separately when the blocks are broken down into the discrete component circuitry.

− Buses are drawn thicker than the individual signal lines and they also have two numbers shown in parenthesis, immediately following the bus name. These numbers indicate how many individual signals are contained in the bus. For example; (7:0) indicates that there are eight total signals in the bus, ranging from 0 through 7. If the buses happen to be data or address buses, the numbers in parenthesis also indicate the most significant bit and least significant bit as follows, (MSB:LSB).

− When an individual signal line enters or leaves a bus, it is drawn using a diagonal line called a ripper. Next to the ripper, a number is also drawn. This ripper number is unique to the signal line that it represents. In other words, if a ripper number is 3 and the signal line name that leaves the bus is XAC, every time XAC leaves or enters that bus, the ripper number, will always be 3. Examples of ripper symbols are shown in Illustration 1.

− There are some special symbols, called ports and pages, used to link buses and signal lines from one sheet of the schematic to others. Port symbols link signals between different functional blocks, while the page symbols link signals within the same functional block. Examples of these symbols are shown in Illustration 1.

ILLUSTRATION 1−1
HIERARCHICAL EXAMPLES

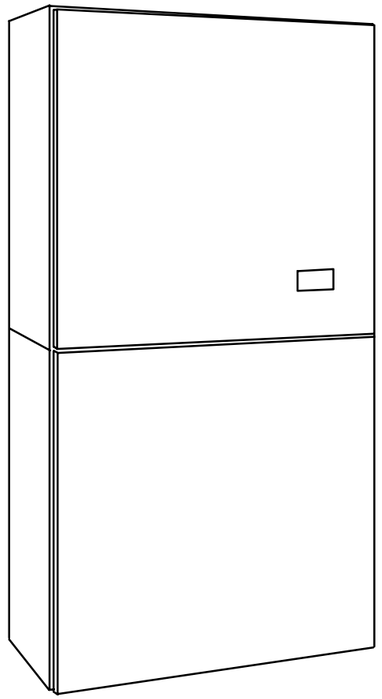


SECTION 3
REFERENCES

For additional information about: Jumpers, Switches, Fuses, Circuit Breakers, Test Points, LED's, and Variable Components, refer to the corresponding Central Listing document, that is associated with each Schematic document. For additional information about: interconnecting signal cables, grounds wires, and power connections, refer to the appropriate system−level MIS documents. To understand the theory of operation of a circuit, refer to the appropriate system−level diagnostics and theory documents.

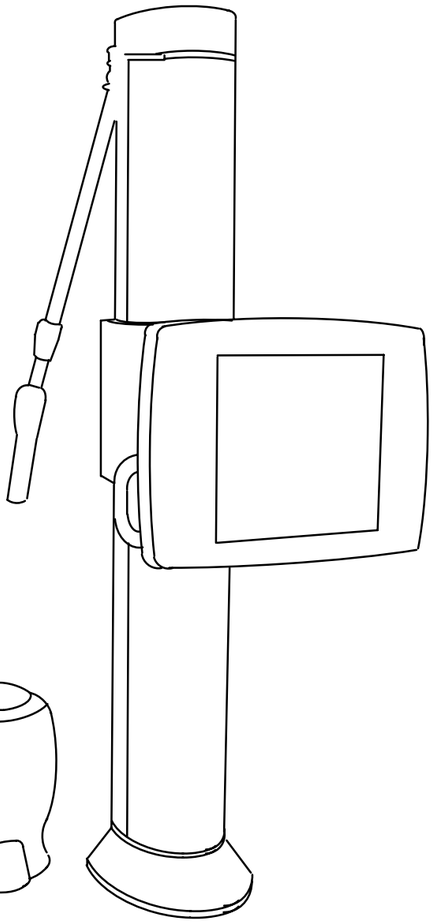
Note: Theory of operation is considered proprietary information and is therefore, restricted to documents that are only available to GE employees or to sites with special licensing agreements.

CHAPTER 2 − REVOLUTION XQ/I SYSTEM COMPONENTS

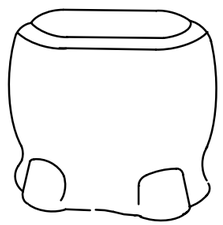


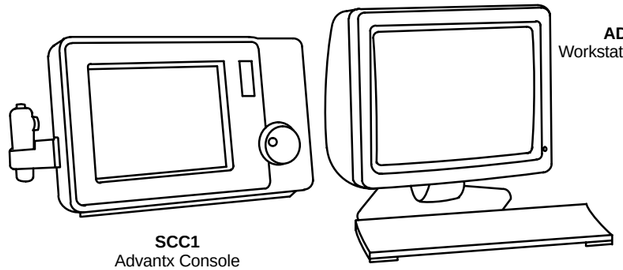
SKL
SCPU System Cabinet

WLS
Receptor Stand



DSA
Detector Support Assembly





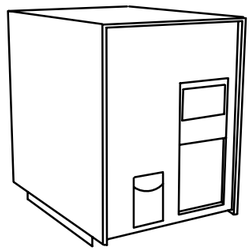
ADS A8
Workstation Monitor



ADS A12
CDROM Burner
(SUN U10 only)

SCC1
Advantx Console

ADS Enclosure



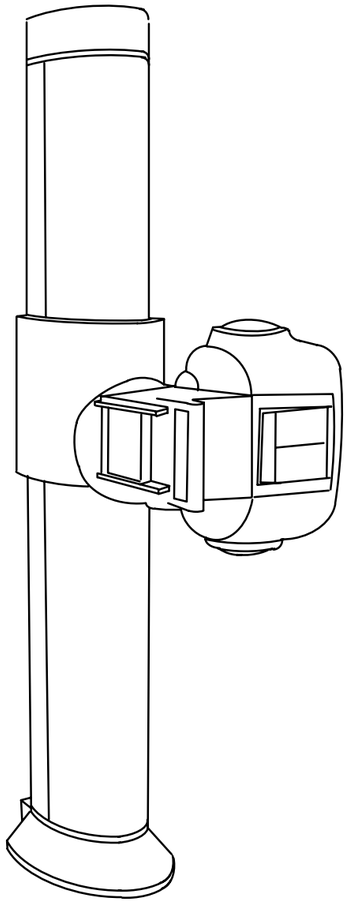
SUN U10 (old)



SUNBLADE 150 (new)

ADS
Acquisition Digital Station

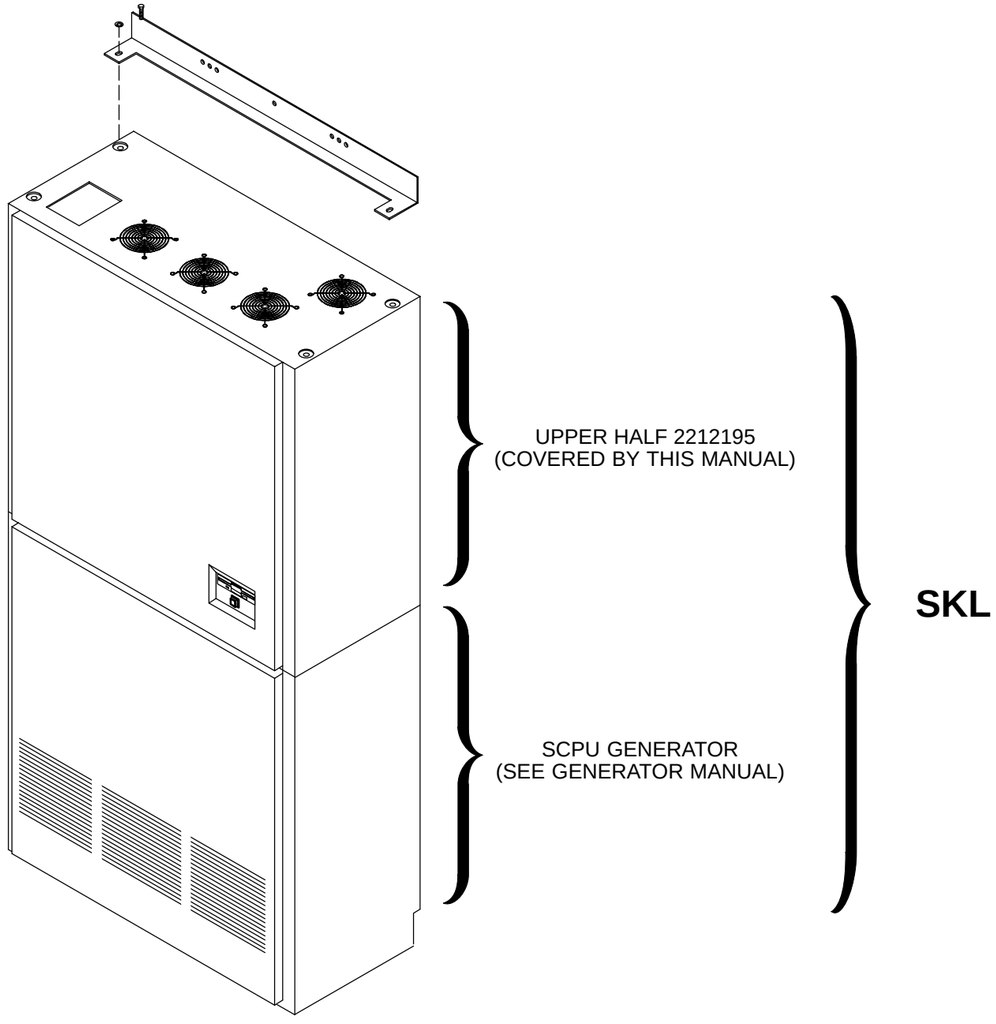
TBS
Tube Stand



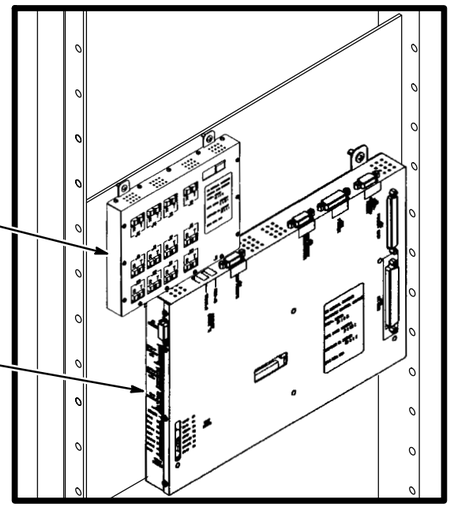
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CHAPTER 3 − SYSTEMS CABINET (SKL)

SECTION 1
SYSTEM CABINET (65KW, 50HZ − 2213251, 80KW, 50HZ − 2213251−2, 65KW, 60HZ − 2213251−3AND 80KW, 60HZ − 2213251−4)



DETAIL “A”



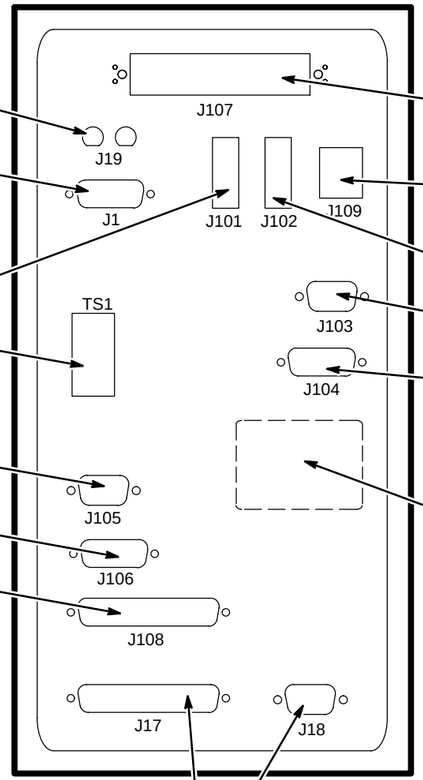
A3
ARCNET
HUB
MODULE

A2
ECM
MODULE

ROOM IP ADDRESS

RECORD THE 1ST ADDRESS
OF THE ASSIGNED IP
BLOCK:

DETAIL “D”
A25
CABINET BULKHEAD



FIBER
TO CONSOLE

WARM START/RST
TO CONSOLE

100BFX
ETHERNET
TO
WORKSTATION

ROOM DOOR INTLK
XRAY WARN LIGHT

ION CHAMBER
TO WALL STAND

WALL STAND
CONTROL

TUBE STAND
CONTROL

RT BUS
TEST
CONNECTION,
DO NOT USE
TERMINATOR

10BTX
ETHERNET
FOR SERVICE
USE

FIBER CHANNEL
TO WALL STAND
DETECTOR

CHILLER CONTROL
TO DSA

POWER SUPPLY CONTROL
TO DSA

A25 K1
XRAY WARN LIGHT

TO GENERATOR

A5
FANS

A25
CABINET
BULKHEAD
(SEE DETAIL ”D”)

A3
ARCNET HUB MODULE
(HIDDEN − SEE DETAIL
“A”)

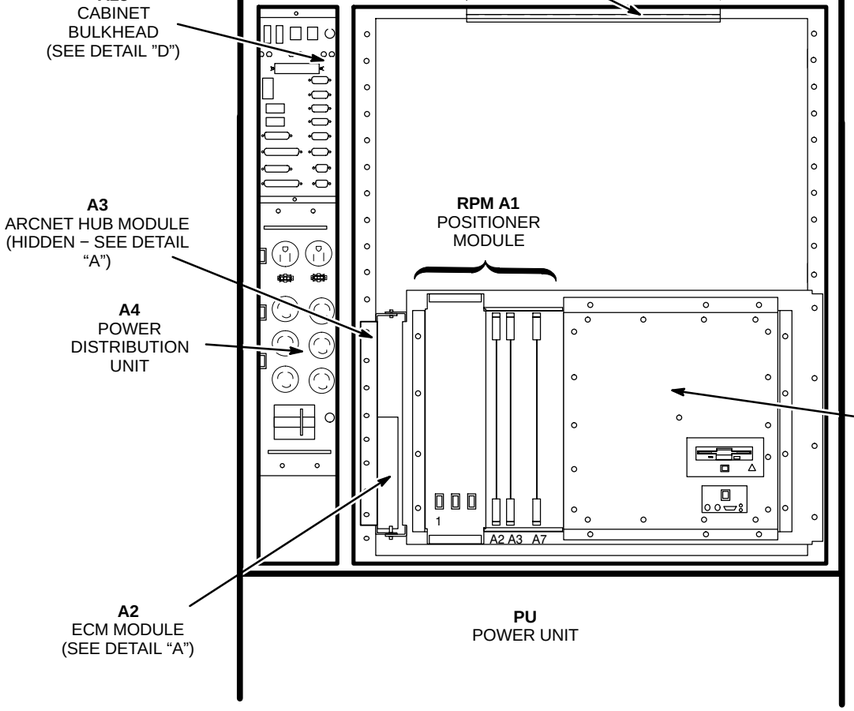
A4
POWER
DISTRIBUTION
UNIT

RPM A1
POSITIONER
MODULE

A1
ASC−EDM
MODULE

A2
ECM MODULE
(SEE DETAIL “A”)

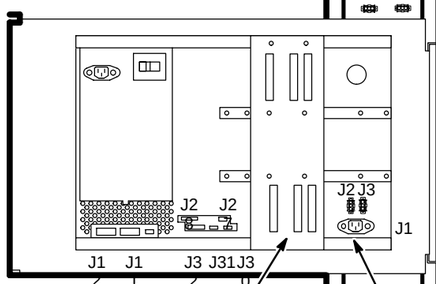
PU
POWER UNIT



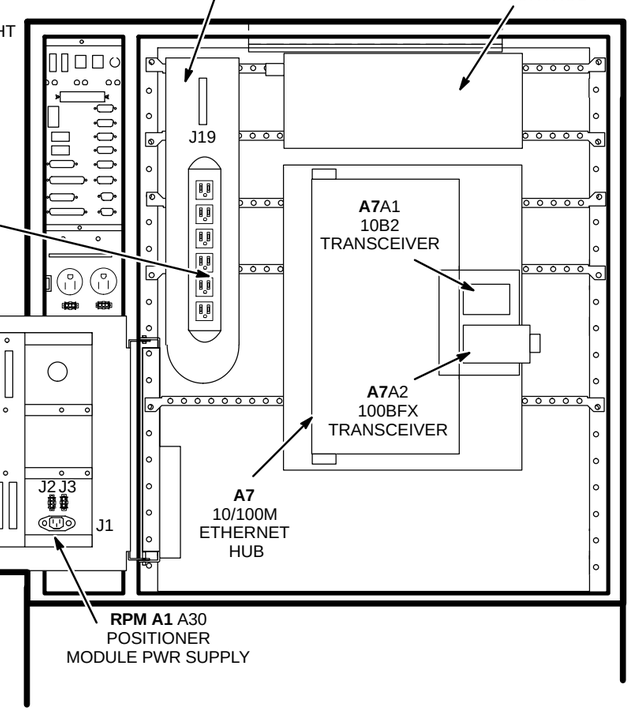
A6
POWER STRIP PANEL

IDC A1
IMAGE DETECTOR
CONTROL

A6 A1
POWER STRIP



RPM A1 A20
POSITIONER
MODULE BACKPLANE



A7
10/100M
ETHERNET
HUB

RPM A1 A30
POSITIONER
MODULE PWR SUPPLY

OVERALL SCHEMATICS OF EAGLE1 SYSTEMS CABINET UPPER HALF

INDEX:

SHEET 2: SYSTEM CABINET OVERALL (NEW PDU)
SHEET 3: POSITIONER MODULE
SHEET 4: IDC MODULE
SHEET 5: IDC MODULE
SHEET 6: SYSTEM CABINET OVERALL (OLD PDU)

KEY TO CONNECTOR STYLES:

- HUBBEL TWIST LOCK
- NORTH AMERICAN 120V
- IEC 320
- AC ADAPTER
- LOW VOLTAGE POWER JACK
- AMP MATE & LOCK
- AMP M SERIES
- PHOENIX TERMINAL
- SUB D
- 80MD
- 50 PIN CHAMP
- 96 PIN DIN
- HEWLETT PACKARD FIBER
- 10 BASE T
- SC FIBER
- 4 WALL

NOTES:

1. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46−017486
2. ACTIVE LOW SIGNALS ARE INDICATED WITH " / " AFTER THE SIGNAL NAME
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.25W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.

PCN #	209473	209564	238341			
DATE / SHT	10 DEC99	24FEB 2000	03FEB 2004			
2	1	2	3			
3	0	0	0			
4	1	1	1			
5	0	0	0			
6	−	−	0			

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

REV 2 PCN: 209564 DESCRIPTION: CHANGED RT BUS CABLE TO 2241169 AT C,5
MADE BY: G. HEILERT DATE: 8DEC99 APPR BY: DATE:

REV 3 PCN: 238341 DESCRIPTION: UPDATED SHT 2 AT B,2 & ADDED SHT 6
MADE BY: D. BEETCHER DATE: 03FEB2004 APPR BY: DATE:

MADE: DAVID D. VOIGHT DATE: 97JUL08
CHECK: DATE:
APPR: DATE:
OTHER: DATE:

GE MEDICAL SYSTEMS
Milwaukee, WI USA

DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC
FIRST MADE FOR: EAGLE1

DRAWING NO.	REV	SIZE	SHT. / CONT. ON
2212195SCH	3	B	1 / 2

SHT. 2 CONT. 3
2212195SCH

This sheet used for systems with PDU part # 2264423.
Use sheet 6 for PDU part # 2192776.

CABINET EMI BARRIER

DSA
SPARE
SPARE
INTERLOCK JUMPER PLUG
TUBE STAND
WALL STAND
CONSOLE
SERVICE USE
GENERATOR

J3 J4 120VAC COLD
J6 J5 120VAC WARM
J8 J7
SKL A4 − PDU

NOTE: These are the connections to PDU part # 2264423. If using PDU part # 2192776, refer to Sheet 6.

J1 CONSOLE PWR
SERVICE OUTLET
480VAC IN J12

SKL A6A1 POWER STRIP
2204157
FANS SKL A5
2208804−2
POWER CORD SUPPLIED WITH ETHERNET HUB
2208804
2208804−2
2208804−2
TO SKL A8 AC ADAPTER (SEE SHT 5)
J9
J11
PART OF 2206105

SKL RPM A1 POS MODULE (SEE SHEET 3)
A30J1
A20 U1
A20 U2
A30 J2
A30 J3
A20 A2 J2
2118610−2 (Fiber)
PART OF 2206105

SKLA7 ETHERNET HUB
PWR
10B2
(SEE SHEET 4)

SKL IDC A1 IDC CARDRACK
POWER
RTBUS
(SEE SHEET 4)

46−251920G35 (Ethernet Coax Long)

SERVICE LAPTOP

2241169 (RT Bus)
SERIAL PORT

SKL A6
J19
J107 (FOR TEST)
J17
2204390 (RT Bus)
GENERATOR
2122860−2 (Generator)
CONSOLE
J19
2118610−2 (Fiber)

SKL A2 ECM
J14 J13
J31
J12
J25
J8
J1/2
2204805−2 (DC Power)

2118610 (Fiber)

SKL A3 HUB
J2 J12
SPARE J4 J10
SPARE J3 J1
SPARE J5
SPARE J7 J6
SPARE J8 J11 SPARE
J9 J13
SPARE SPARE

2204805 (DC Power)
2118610−2 (Fiber)

SKL A25 CABINET BULKHEAD

SKL A1 TITAN
A7 POWER SUPPLY
A8 HARD DRIVE
A9 FLOPPY
J12 A4 CONTROL PANEL BOARD
J11
FRONT PANEL
COM 2
ETHERNET
SERIAL (COM 2)
PARALLEL PORT
A3 CPU BOARD
J13
A20 BACKPLANE
J1
EXT
LOCAL
A1 BIU BOARD
J27
J30
J1
A2 SERIAL BOARD
J31 J32 J28

CONSOLE
J1
2204812 (Prep/Exp/Reset)
2204814 (Console)
GENERATOR
J18
2204810 (Generator)

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

REV 2 PCN: 209564 DESCRIPTION: CHANGED RT BUS CABLE TO 2241169 AT C,5
MADE BY: G. HEILERT DATE: 24FEB2000 APPR BY: DATE:

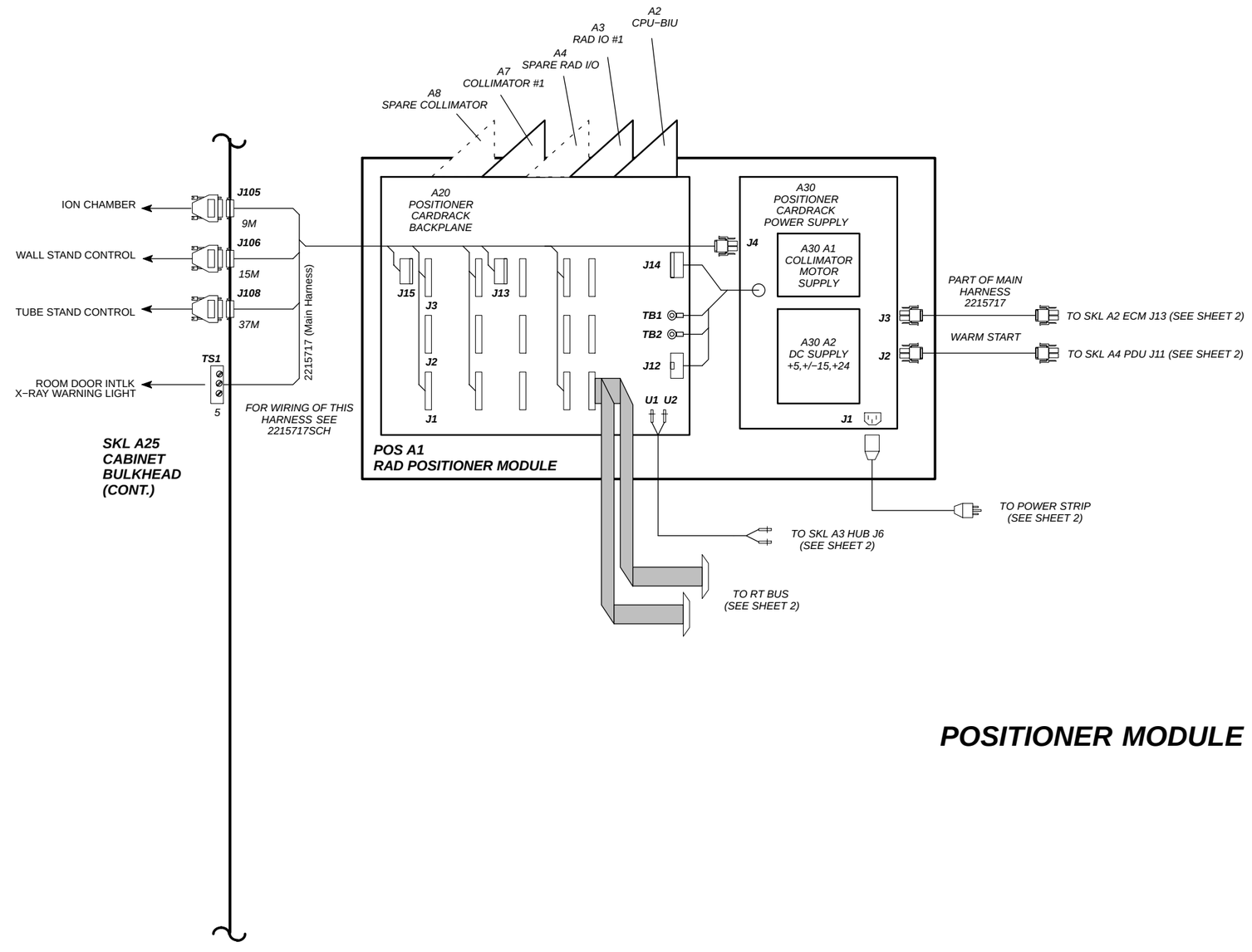
REV 3 PCN: 238341 DESCRIPTION: UPDATE CONNECTIONS TO NEW PDU AT B,2
MADE BY: D. BEETCHER DATE: 03FEB2004 APPR BY: DATE:

MADE: DAVID D. VOIGHT DATE: 96DEC19
CHECK: DATE:
APPR: DATE:
OTHER: DATE:

GE MEDICAL SYSTEMS
Milwaukee, WI USA

DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC
FIRST MADE FOR: EAGLE1

DRAWING NO.	REV	SIZE	SHT. / CONT. ON
2212195SCH	3	B	2 / 3



POSITIONER MODULE

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

REV 1 PCN:	DESCRIPTION:			MADE: DAVID D. VOIGHT	DATE: 97JUL08	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC
MADE BY:	DATE:	APPR BY:	DATE:	CHECK:	DATE:		FIRST MADE FOR: EAGLE1
REV 2 PCN:	DESCRIPTION:			APPR:	DATE:		DRAWING NO. 2212195SCH / REV 0 / SIZE B / SHT. / CONT. ON 3 / 4
MADE BY:	DATE:	APPR BY:	DATE:	OTHER:	DATE:		

THIS SHEET FOR SYSTEMS WITH
DES−815 ETHERNET HUB

J103
CHILLER CONTROL
9F
2216031

J104
POWER SUPPLY CONTROL
26F
2216032

J102
TO DETECTOR
2208907−8

J101
TO WORKSTATION
2208907−6

J109
SPARE
2215028−8

2215028−7

SKL A25
CABINET
BULKHEAD
(CONT.)

CABINET EMI
BARRIER

A1
SYSTEM
INTERFACE
BOARD

A2
CPU

A6
C80 DAP

A6 A1
FIBER CHANNEL I/O

A4
ETHERNET

IDE HARD
DRIVE

3.5" FLOPPY

ENET
CAN
RTBUS
COM
FIBER
J1

A30
DC SUPPLY
+5,+3.3,+/−12

IDC A1
DIGITAL RAD IDC MODULE

7 SLOT PASSIVE
BACKPLANE
CPU + 3ISA+3PCI

TO POWER STRIP
(SEE SHEET 2)

50 OHM
TERMINATOR

TO RT BUS BRACKET J19
(SEE SHEET 2)

TO SKL A1 TITAN J13
(SEE SHEET 2)

10BFX
XCVR
A2

10B2
XCVR
A1

5X
(10M)
2X
(100M)
MII
PORT
AUI
PORT

SKL A7
ETHERNET HUB

TO POWER STRIP
(SEE SHEET 2)

IDC MODULE

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

REV 1 PCN: 209473 DESCRIPTION: ADDED SHT 5 MADE BY: G. HEILERT DATE: 8DEC99 APPR BY: DATE:	MADE: DAVID D. VOIGHT DATE: 97JUL08 CHECK: DATE: APPR: DATE: OTHER: DATE:	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC FIRST MADE FOR: EAGLE1
REV 2 PCN: DESCRIPTION: MADE BY: DATE: APPR BY: DATE:			DRAWING NO. 2212195SCH / REV 1 / SIZE B / SHT. / CONT. ON 4 / 5

THIS SHEET FOR SYSTEMS WITH
DES−1016FX ETHERNET HUB
AND DE−855 MEDIA CONVERTER

J103
CHILLER CONTROL
9F
2216031

J104
POWER SUPPLY CONTROL
26F
2216032

J102
TO DETECTOR
2208907−8

J101
TO WORKSTATION
2208907−6

J109
SPARE
2215028−8

SKL A25
CABINET
BULKHEAD
(CONT.)

CABINET EMI
BARRIER

2215028−7

A1
SYSTEM
INTERFACE
BOARD
A2
CPU
A6
C80 DAP
A6 A1
FIBER CHANNEL I/O
A4
ETHERNET

IDE HARD
DRIVE
3.5" FLOPPY
A30
DC SUPPLY
+5,+3.3,+/−12

ENET
CAN
RTBUS
COM
FIBER
J1

IDC A1
DIGITAL RAD IDC MODULE

7 SLOT PASSIVE
BACKPLANE
CPU + 3ISA+3PCI

TO RT BUS BRACKET J19
(SEE SHEET 2)

TO POWER STRIP
(SEE SHEET 2)

AC ADAPTOR
TO AC POWER
(SEE SHT 2)

SKL A8
MEDIA
CONVERTER
DE−855
10B2

2215028−8

TO SKL A1 TITAN J13
(SEE SHEET 2)

50 OHM
TERMINATOR

IDC MODULE

5X
(10B−T)
1X
(100B−Fx)
4X
(100B−T)
3X
(10B−T)

SKL A7
ETHERNET HUB

TO POWER STRIP
(SEE SHEET 2)

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

REV 1 PCN:	DESCRIPTION:			MADE: DAVID D. VOIGHT	DATE: 97JUL08	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC
MADE BY:	DATE:	APPR BY:	DATE:	CHECK:	DATE:		FIRST MADE FOR: EAGLE1
REV 2 PCN:	DESCRIPTION:			APPR:	DATE:		DRAWING NO. 2212195SCH / REV 0 / SIZE B / SHT. / CONT. ON 5 / 6
MADE BY:	DATE:	APPR BY:	DATE:	OTHER:	DATE:		

SHT. 2 CONT. 3
2212195SCH

This sheet used for systems with PDU part # 2192776.
Use sheet 2 for PDU part # 2264423.

CABINET EMI BARRIER

DSA
SPARE
SPARE
SPARE
TUBE STAND
WALL STAND
CONSOLE
SPARE
SERVICE USE

J3 J4 120VAC COLD
J6 J8 120VAC WARM
J5 J7
SKL A4 − PDU

NOTE: These are the connections to PDU part # 2192776. If using PDU part # 2264423, refer to Sheet 2.

J9
J11
J1 CONSOLE PWR
J2
SERVICE OUTLET
SERVICE OUTLET
480VAC IN J12

GENERATOR

SKL A6A1 POWER STRIP

2204157
FANS SKL A5
2208804−2
POWER CORD SUPPLIED WITH ETHERNET HUB
2208804
2208804−2
2208804−2
TO SKL A8 AC ADAPTER (SEE SHT 5)
PART OF 2206105

SKL RPM A1 POS MODULE (SEE SHEET 3)
A30J1
A20 U1
A20 U2
2118610−2 (Fiber)
A30 J2
A30 J3
A20 A2 J2
PART OF 2206105

SKLA7 ETHERNET HUB
PWR
10B2
(SEE SHEET 4)

SKL IDC A1 IDC CARDRACK
POWER
RTBUS
(SEE SHEET 4)

2241169 (RT Bus)
SERIAL PORT
46−251920G35 (Ethernet Coax Long)

SKL A6
J19
J107 (FOR TEST)
2204390 (RT Bus)
J17
GENERATOR
2122860−2 (Generator)

SKL A2 ECM
J14 J13 J25 J8 J1/2 J12 J31
2204805−2 (DC Power)

CONSOLE
J19
2118610−2 (Fiber)
2118610 (Fiber)

SKL A3 HUB
J2 J12
SPARE J4 J10
SPARE J3 J1
SPARE J5
SPARE J7 J6
SPARE J8 J11 SPARE
J9 J13
SPARE SPARE
2204805 (DC Power)
2118610−2 (Fiber)

SKL A25 CABINET BULKHEAD

SERVICE LAPTOP

A7 POWER SUPPLY
A8 HARD DRIVE
A9 FLOPPY
A4 CONTROL PANEL BOARD
J12
J11
FRONT PANEL
COM 2
ETHERNET

SKL A1 TITAN
SERIAL (COM 2)
PARALLEL PORT
A3 CPU BOARD
J13
J1
A20 BACKPLANE
EXT
LOCAL
A1 BIU BOARD
J27
J30
J1
A2 SERIAL BOARD
J31 J32 J28

CONSOLE
J1
2204812 (Prep/Exp/Reset)
2204814 (Console)

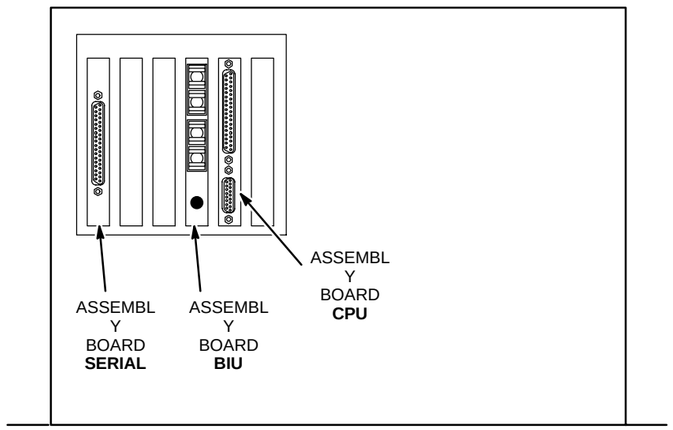
GENERATOR
J18
2204810 (Generator)

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2212195.ILF (INTERLEAF 5.0)

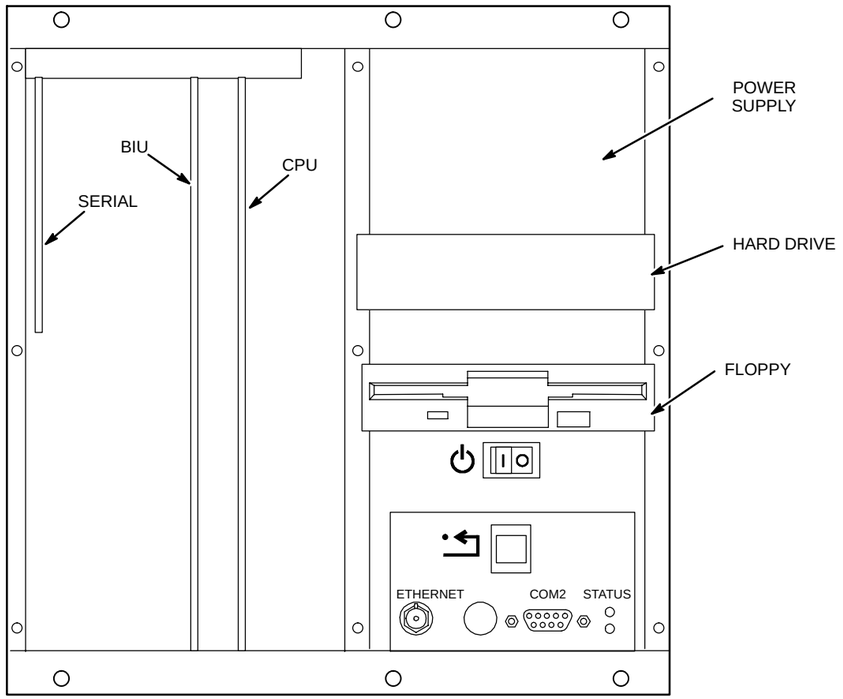
REV 1 PCN:	DESCRIPTION:			MADE: DAVID D. VOIGHT	DATE: 96DEC19	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE1 SYS CABINET UPPER HALF SCHEMATIC
MADE BY:	DATE:	APPR BY:	DATE:	CHECK:	DATE:		FIRST MADE FOR: EAGLE1
REV 2 PCN:	DESCRIPTION:			APPR:	DATE:		DRAWING NO. 2212195SCH / REV 0 / SIZE B / SHT. / CONT. ON 6 / –
MADE BY:	DATE:	APPR BY:	DATE:	OTHER:	DATE:		

SECTION 2
SKL A1 − 2197212 (ASC−EDM)

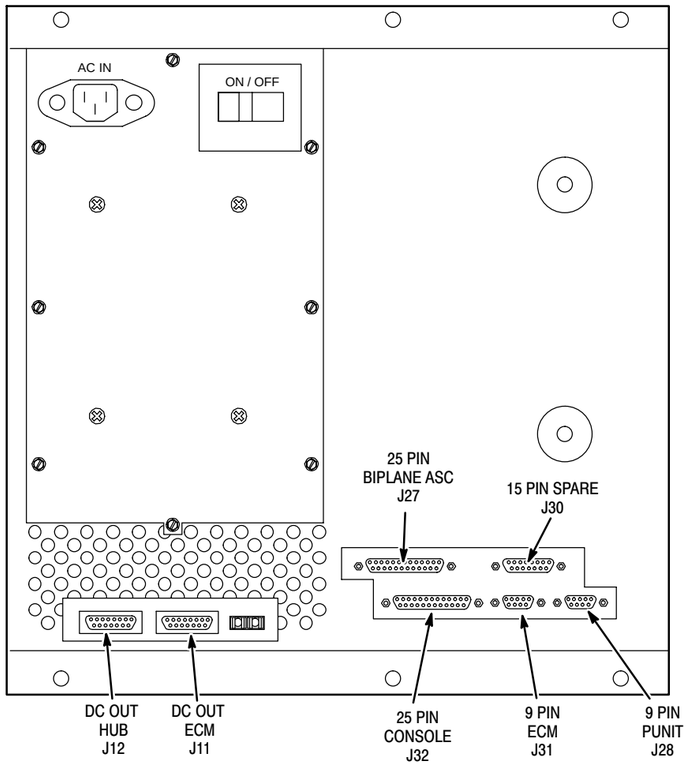
TOP VIEW



FRONT VIEW



REAR VIEW



SECTION 3
ELECTRICAL INTERFACE CONNECTORS AND SIGNAL NAMES

TABLE 4−1
INTERNAL INTERFACE CONNECTORS FOR ASC−EDM

Function	From	Connector Type J#		Pins Each	To	Connector Type J#		Pins Each
AC Input Power	Breaker	Terminals	n/a	3	Pwr Supply	Terminal Strip	n/a	3
DC Output +/−12V	PS Asm	Amp Mate−n−lock	P1	4	Con Panel Bd	Amp Mate−n−Lock	J3	4
DC Output +5V	PS Asm	Amp Mate−n−lock	J1	4	Con Panel Bd	Winchester Power Term	J1/J2	1
DC Sense, POK	PS Asm	Amp Mate−n−lock	P2	3	Con Panel Bd	Molex	J3−1	3
DC Output Power	Con Panel Bd	Amp MTA	J4	19	Backplane	Amp MTA	J10	19
DC Output Power	Con Panel Bd	Amp HSG	J14	4	Hard Disk	Amp Mate−n−lock	J1	4
DC Output Power	Con Panel Bd	Molex HSG	J15	4	Floppy Disk	Amp 2.5mm	J1	4
DC Output Power	Con Panel Bd	Molex 22−01 series	J13	2	Fan	Permanently Attached	n/a	2
System ON/OFF	Con Panel Bd	Molex 22−01 series	J16	3	On/off switch	Amp 187 Fast On	n/a	2
System Reset	Con Panel Bd	Molex 22−01 series	J17	3	Reset switch	Soldered Terminals	n/a	2
COM2 Serial Port	CPU Bd	Dual Row Straight Hdr	P7	10	Con Panel Bd	Shrouded RA Header	J8	10
IDE Disk Data	CPU Bd	Dual Row Straight Hdr	P11	40	Hard Disk	Header	P1	40
Floppy Disk Data	CPU Bd	Dual Row Straight Hdr	P3	34	Floppy Disk	Header (vendor select)	P2	34
CPU Reset Keyboard Speaker	CPU Bd	3, Amp MTA Connectors	P10 P4 P5	2 5 4	Backplane	Header w/ejectors	J23	16
Status, Reset, I^2C	BIU Bd	Header RA wo/ejectors	J5	20	Backplane	Header w/ejectors	J14	20
Status, Reset, I^2C	Backplane	Header w/ejectors	J26	16	Con Panel Bd	Header w/ejectors	J10	16
Ethernet	BIU Bd	RA SMB	J4	2	Con Panel Bd	RA SMB	J5	2
Ethernet	BIU Bd	RA BNC	J3	2	Enclosure	BNC	J13	2

*** Note: Number of individual connectors and pins may vary depending upon CPU Bd MFG.**
Note: All Header Connector Types are Pinned (Male)

TABLE 4−2
EXTERNAL INTERFACE CONNECTORS FOR ASC−EDM

J#	Pins	From Bd	Function	Connector Type	To Bd J#		Notes
J28	9	Backplane	System ON/OFF	Male Pin Sub−D	Kernel BH	J18	
J31	9	Backplane	ECM I/F	Male Pin Sub−D	ECM	J8	Prep, Exp, Rst
J32	15	Backplane	Console I/F	Male Pin Sub−D	Kernel BH Bd	J14	Console Rst, Prep, Exp
J27	15	Backplane	Biplane ASC	Male Pin Sub−D	Kernel BH	J27	Bipl ASC, Rst, RTBus
J30	9	Backplane	UPS Control	Male Pin Sub−D	UPS	n/a	No cable in Std Sys
J13	1	Backplane	Ethernet	BNC or Triax	Kernel BH	J16	To Digital Sys
J1	80	Serial Bd	8 Serial Ports	Female mini−D	Kernel BH Bd	J16	Modem, Insite
P6	9	CPU Bd	Serial Port	Male Pin Sub−D	UPS, Spare	n/a	COM1, Not Used
P8	25	CPU Bd	Parallel Port	Female Pin Sub−D	Spare	n/a	LPT1, Not Used
J1	1	BIU Bd*	Ethernet	BNC or Triax	Backplane	J13	To Digital Sys
LOC	2	BIU Bd	Arcnet	Versa−Link	Hub	J10	Plastic Fiber
EXT	2	BIU Bd	Bipl Arcnet	Versa−Link	Kernel BH	J26	Not Used
J9	9	Cont Panel Bd	Serial Port	Male Pin Sub−D	Laptop I/F	n/a	COM2, Front Panel
n/a	2	Cont Panel Bd	Arcnet	Versa−Link	Hub	n/a	Not Present in Std ASC
J7	1	Cont Panel Bd	Arcnet	75Ω BNC	Laptop I/F	n/a	Not Present in Std ASC
J6	1	Cont Panel Bd	Ethernet	50Ω BNC	Laptop I/F	n/a	10Base2, Front Panel
J12	15	Cont Panel Bd	DC Output Power	Female Pin Sub−D	ECM	J25	EMC Filtered
J11	15	Cont Panel Bd	DC Power + I^2C	Female Pin Sub−D	Hub	J1	EMC Filtered
n/a	3	EMC Filter	AC Input Power	IEC Input Plug	AC Dist	J5	Integral w/EMC Filter

*** Internal Top−Bulkhead mounted cable from BIU Bd J3**

TABLE 4−3
CONNECTOR (J31) − ECM INTERFACE

Signal Name	Pin No.
RT−RST−P	1
RT−RST−N	2
	3
PREP−SW	4
EXP−SW	5
	6
	7
	8
	9

TABLE 4−4
CONNECTOR (J32) − CONSOLE INTERFACE

Signal Name	Pin No.
	1
PREP−SW	2
EXP−SW	3
RT−RST−N	4
	5
	6
SYS−ON*	7
	8
+12 VDC	9
ASC−RST	10
RT−RST−P	11
	12
	13
24 VL	14
24 VL−RTN	15

TABLE 4−5
CONNECTOR (J30) − UPS INTERFACE

Signal Name	Pin No.
	1
POK*	2
	3
GND	4
LOW−BATT*	5
UPS−SHUT−OFF*	6
	7
	8
	9

TABLE 4−6
CONNECTOR (J27) − BIPLANE ASC

Signal Name	**Pin No.**
+12 VDC	1
ASC−RST	2
RT−RST−P	3
RT−RST−N	4
RT−RST−NR	5
RT−RST−PR	6
P12V−OUT	7
P12V−IN	8
	9
	10
	11
	12
	13
	14
	15

TABLE 4−7
CONNECTOR (J28) − POWER UNIT

Signal Name	Pin No.
	1
SYS−ON*	2
	3
	4
	5
24 VL	6
24 VL−RTN	7
	8
	9

TABLE 4−8
CONNECTOR (J11) − HUB POWER AND I^2C

Signal Name	Pin	Function
VCC	1	+5VDC power for hub
VCC	2	+5VDC power for hub
VCC	3	+5VDC power for hub
SCLK	4	I^2C serial bus clock
SER_DATA	5	I^2C serial bus data
V12P	6	+12VDC power for hub
V12P	7	+12VDC power for hub
V12N	8	−12VDC power for hub
LGND	9	LOGIC GND for hub
LGND	10	LOGIC GND for hub
LGND	11	LOGIC GND for hub
LGND	12	LOGIC GND for hub
LGND	13	LOGIC GND for hub
AGND	14	12V RTN for hub
AGND	15	12V RTN for hub

TABLE 4−9
CONNECTOR (J12) − ECM POWER

Signal Name	Pin	Function
VCC	1	+5VDC power for ECM
VCC	2	+5VDC power for ECM
VCC	3	+5VDC power for ECM
NC	4	No Connect
NC	5	No Connect
V12P	6	+12VDC power for ECM
V12P	7	+12VDC power for ECM
V12N	8	−12VDC power for ECM
LGND	9	LOGIC GND for ECM
LGND	10	LOGIC GND for ECM
LGND	11	LOGIC GND for ECM
LGND	12	LOGIC GND for ECM
LGND	13	LOGIC GND for ECM
AGND	14	12V RTN for ECM
AGND	15	12V RTN for ECM

TABLE 4−10
CONNECTOR (J9) − COM2 FRONT PANEL

Signal Name	Pin	Function
DCD	1	Data Carrier Detect
RXD	2	Receive Data (DTE)
TXD	3	Transmit Data (DTE)
DTR	4	Data Terminal Ready
GND	5	Ground
DSR	6	Data Set Ready
RTS	7	Request To Send
CTS	8	Clear To Send
RI	9	Ring Indicator

TABLE 4−11
CONNECTOR (J6) − ETHERNET BNC FRONT PANEL

Signal Name	Pin	Function
EDATA	1	Ethernet Data
ESHIELD	2	Ethernet Shield (GND)

TABLE 4−12
CONNECTOR (J13) − ETHERNET BNC BIU BD

Signal Name	Pin	Function
EDATA	1	Ethernet Data
ESHIELD	2	Ethernet Shield (GND)

TABLE 4−13
CONNECTOR (J1) − 8 SERIAL CHANNELS

Signal Name	Connector − Pin No.	Signal Type	Signal Direction
SOUT*_0	J1−1	RS−232	OUT
SIN*_0	J1−2	RS−232	IN
RTS_0	J1−3	RS−232	OUT
CTS_0	J1−4	RS−232	IN
DTR_0	J1−5	RS−232	OUT
DSR_0	J1−6	RS−232	IN
DCD_0	J1−7	RS−232	IN
RI_0	J1−8	RS−232	IN
LGND	J1−9	POWER	BI
LGND	J1−10	POWER	BI
SOUT* / SOUT+_1	J1−11	RS−232 / RS−422	OUT
N.C. / SOUT−_1	J1−12	RS−232 / RS−422	OUT
SIN* / SIN+_1	J1−13	RS−232 / RS−422	IN
N.C. / SIN−_1	J1−14	RS−232 / RS−422	IN
RTS / RTS+_1	J1−15	RS−232 / RS−422	OUT
DTR / RTS−_1	J1−16	RS−232 / RS−422	OUT
CTS / CTS+_1	J1−17	RS−232 / RS−422	IN
DSR / CTS−_1	J1−18	RS−232 / RS−422	IN
LGND	J1−19	POWER	BI
LGND	J1−20	POWER	BI
SOUT* / SOUT+_2	J1−21	RS−232 / RS−422	OUT
N.C. / SOUT−_2	J1−22	RS−232 / RS−422	OUT
SIN* / SIN+_2	J1−23	RS−232 / RS−422	IN
N.C. / SIN−_2	J1−24	RS−232 / RS−422	IN
RTS / RTS+_2	J1−25	RS−232 / RS−422	OUT
DTR / RTS−_2	J1−26	RS−232 / RS−422	OUT
CTS / CTS+_2	J1−27	RS−232 / RS−422	IN
DSR / CTS−_2	J1−28	RS−232 / RS−422	IN
LGND	J1−29	POWER	BI
LGND	J1−30	POWER	BI

Signal Name	Connector − Pin No.	Signal Type	Signal Direction
SOUT* / SOUT+_3	J1−31	RS−232 / RS−422	OUT
N.C. / SOUT−_3	J1−32	RS−232 / RS−422	OUT
SIN* / SIN+_3	J1−33	RS−232 / RS−422	IN
N.C. / SIN−_3	J1−34	RS−232 / RS−422	IN
RTS / RTS+_3	J1−35	RS−232 / RS−422	OUT
DTR / RTS−_3	J1−36	RS−232 / RS−422	OUT
CTS / CTS+_3	J1−37	RS−232 / RS−422	IN
DSR / CTS−_3	J1−38	RS−232 / RS−422	IN
LGND	J1−39	POWER	BI
LGND	J1−40	POWER	BI
LGND	J1−41	POWER	BI
LGND	J1−42	POWER	BI
SOUT* / SOUT+_4	J1−43	RS−232 / RS−422	OUT
N.C. / SOUT−_4	J1−44	RS−232 / RS−422	OUT
SIN* / SIN+_4	J1−45	RS−232 / RS−422	IN
N.C. / SIN−_4	J1−46	RS−232 / RS−422	IN
RTS / RTS+_4	J1−47	RS−232 / RS−422	OUT
DTR / RTS−_4	J1−48	RS−232 / RS−422	OUT
CTS / CTS+_4	J1−49	RS−232 / RS−422	IN
DSR / CTS−_4	J1−50	RS−232 / RS−422	IN
LGND	J1−51	POWER	BI
LGND	J1−52	POWER	BI
SOUT* / SOUT+_5	J1−53	RS−232 / RS−422	OUT
N.C. / SOUT−_5	J1−54	RS−232 / RS−422	OUT
SIN* / SIN+_5	J1−55	RS−232 / RS−422	IN
N.C. / SIN−_5	J1−56	RS−232 / RS−422	IN
RTS / RTS+_5	J1−57	RS−232 / RS−422	OUT
DTR / RTS−_5	J1−58	RS−232 / RS−422	OUT
CTS / CTS+_5	J1−59	RS−232 / RS−422	IN
DSR / CTS−_5	J1−60	RS−232 / RS−422	IN
LGND	J1−61	POWER	BI
LGND	J1−62	POWER	BI
SOUT* / SOUT+_6	J1−63	RS−232 / RS−422	OUT
N.C. / SOUT−_6	J1−64	RS−232 / RS−422	OUT
SIN* / SIN+_6	J1−65	RS−232 / RS−422	IN
N.C. / SIN−_6	J1−66	RS−232 / RS−422	IN
Signal Name	**Connector − Pin No.**	**Signal Type**	**Signal Direction**

Signal Name	Connector − Pin No.	Signal Type	Signal Direction
RTS / RTS+_6	J1−67	RS−232 / RS−422	OUT
DTR / RTS−_6	J1−68	RS−232 / RS−422	OUT
CTS / CTS+_6	J1−69	RS−232 / RS−422	IN
DSR / CTS−_6	J1−70	RS−232 / RS−422	IN
LGND	J1−71	POWER	BI
LGND	J1−72	POWER	BI
SOUT* / SOUT+_7	J1−73	RS−232 / RS−422	OUT
N.C. / SOUT−_7	J1−74	RS−232 / RS−422	OUT
SIN* / SIN+_7	J1−75	RS−232 / RS−422	IN
N.C. / SIN−_7	J1−76	RS−232 / RS−422	IN
RTS / RTS+_7	J1−77	RS−232 / RS−422	OUT
DTR / RTS−_7	J1−78	RS−232 / RS−422	OUT
CTS / CTS+_7	J1−79	RS−232 / RS−422	IN
DSR / CTS−_7	J1−80	RS−232 / RS−422	IN

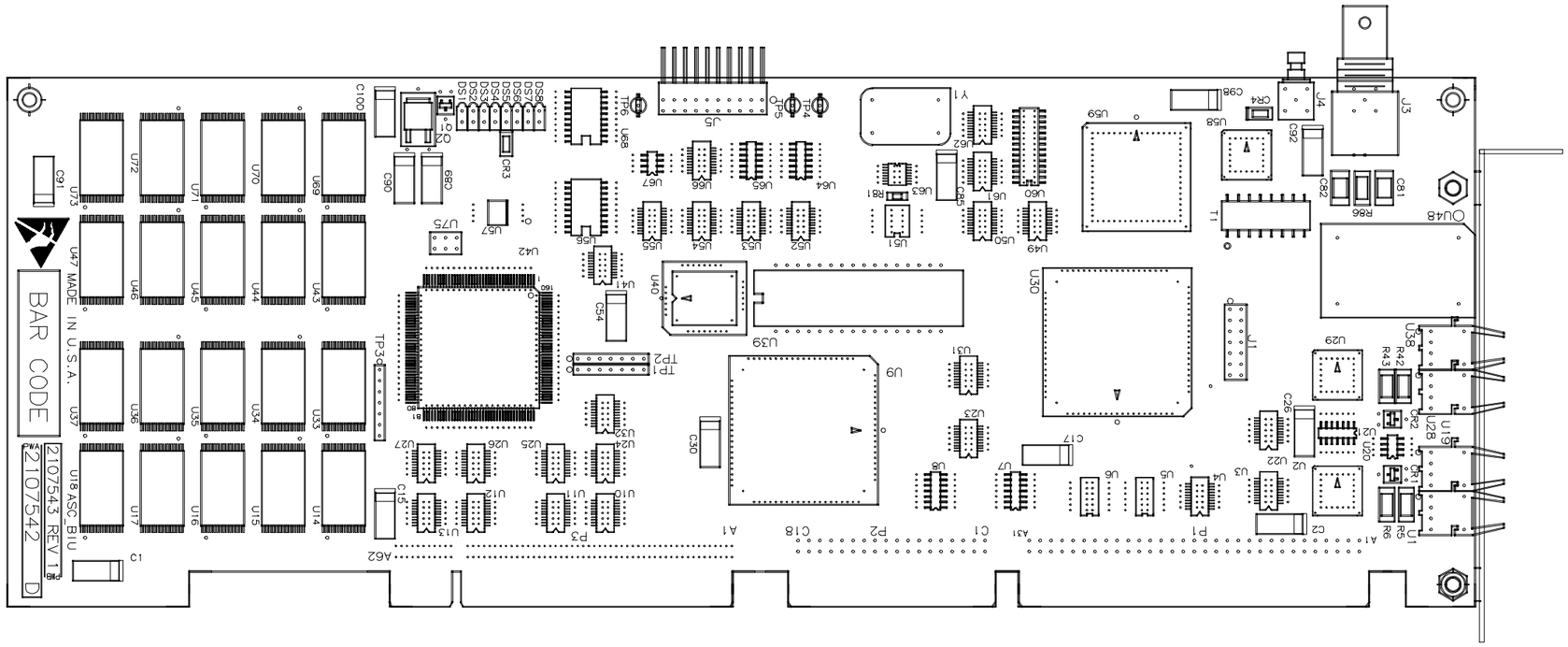
TABLE 4−14
CONNECTOR (P6) − COM1 CPU BD

Signal Name	Pin	Function
DCD	1	Data Carrier Detect
RXD	2	Receive Data (DTE)
TXD	3	Transmit Data (DTE)
DTR	4	Data Terminal Ready
GND	5	Ground
DSR	6	Data Set Ready
RTS	7	Request To Send
CTS	8	Clear To Send
RI	9	Ring Indicator

TABLE 4−15
CONNECTOR (P8) − LPT1 CPU BD

Signal Name	Pin	Function
STROBE	1	Data Clock
DATA_0	2	Data Bit 0
DATA_1	3	Data Bit 1
DATA_2	4	Data Bit 2
DATA_3	5	Data Bit 3
DATA_4	6	Data Bit 4
DATA_5	7	Data Bit 5
DATA_6	8	Data Bit 6
DATA_7	9	Data Bit 7
ACK	10	Data Acknowledge
BUSY	11	Device Busy
PAPER_END	12	Paper End
SLCT	13	Data Solicit
AF	14	Auto Feed XT
ERR	15	Error
INIT	16	Initialize
SLCT_IN	17	Solicit Data Input
GND	18	Ground Return
GND	19	Ground Return
GND	20	Ground Return
GND	21	Ground Return
GND	22	Ground Return
GND	23	Ground Return
GND	24	Ground Return
GND	25	Ground Return

SECTION 4
SKL A1 A1 2107542 (BIU BOARD)



1 2 3 4 5 6 7 8 9 10

SHT. 1 CONT. 2
2107542SCH

REVISION	PCN NUMBER	DATE	SIGN OFF
A	- - - - - -	28/Jan/94	
B	- - - - - -	26/Aug/94	
0	- - - - - -	17-OCT-94	

SHEET_NAME	SHT NUM	REV
block_diagram	2	0
isa_if	3	0
arcnet	4	0
ethernet	5	0
nv_rom	6	0
ports	7	0
clk_pwr	8	0
isa_conn	9	0
pci_if	10	0
flash_1	11	0
flash_2	12	0
flash_3	13	0
pci_conn	14	0
spares	15	0

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2107542 C
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED ALL RESISTORS ARE 0.1W,1% AND ARE IN OHMS.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME.

A B C D E F H

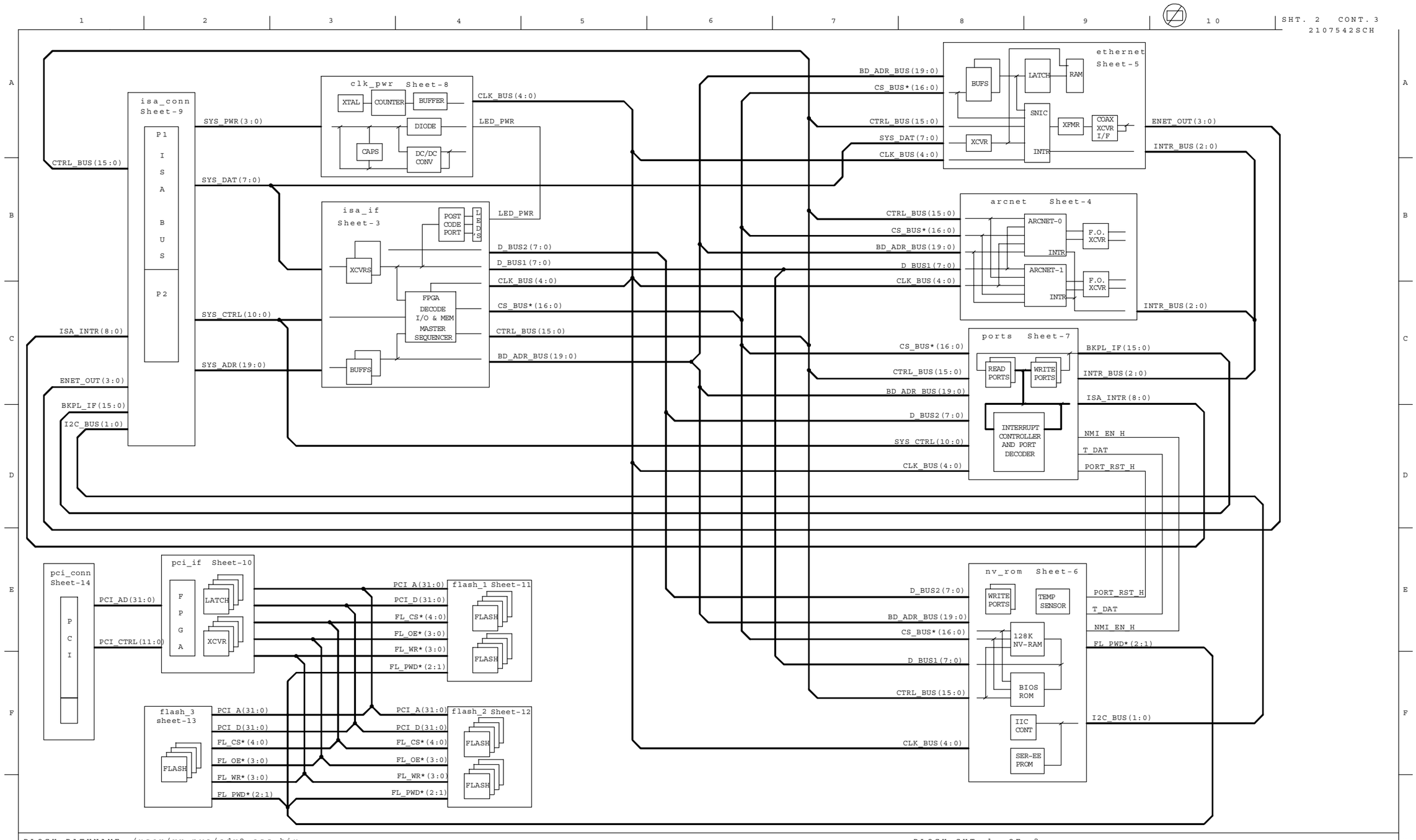
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BLOCK SHT 2 OF 2

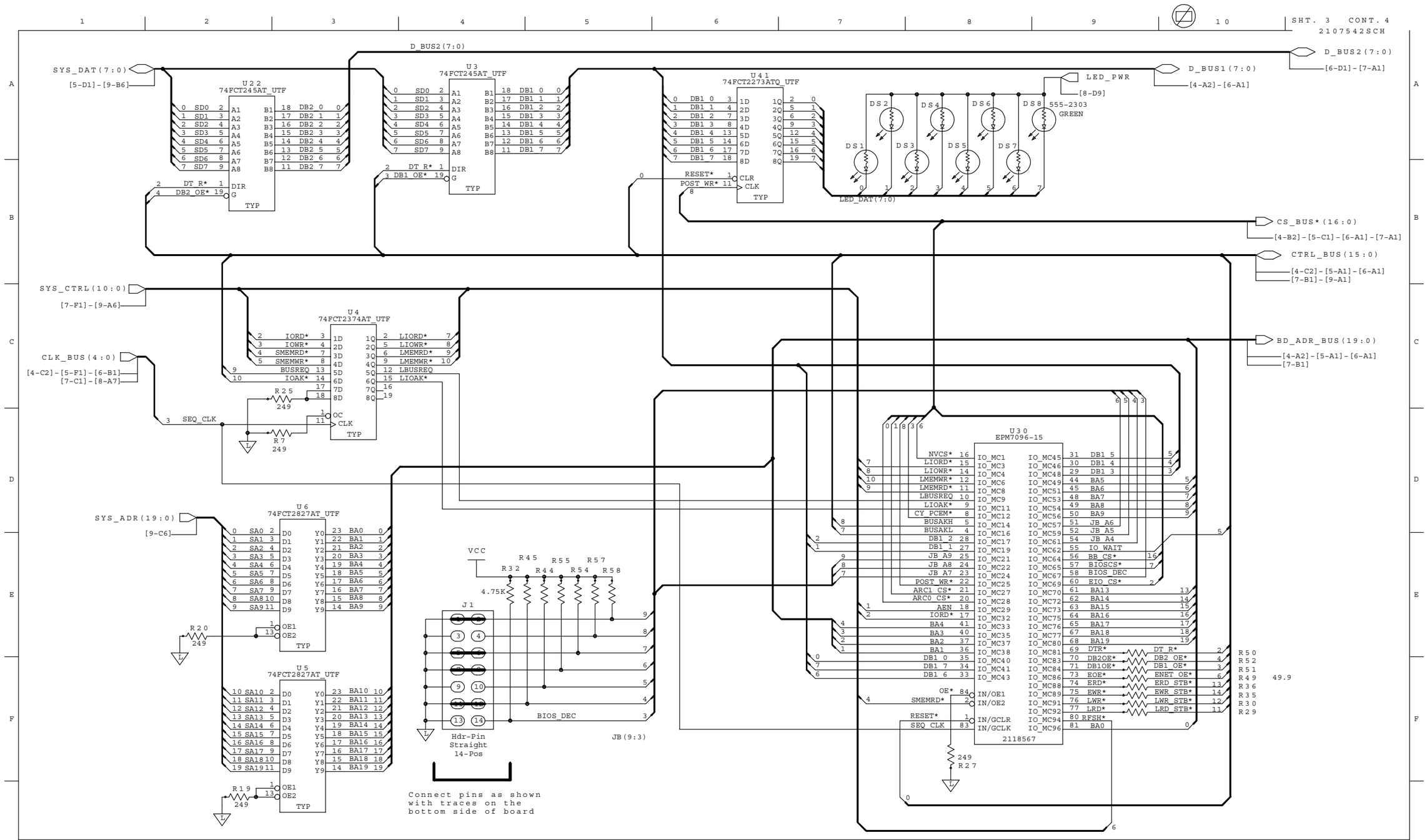
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MADE BY	DATE	APPR BY	DATE
REV 2 PCN	DESCRIPTION		
MADE BY	DATE	APPR BY	DATE

MADE piekarski_j	DATE 28/Jan/94	GE MEDICAL SYSTEMS Milwaukee, WI USA
CHECK JIM WOODS	DATE 20-OCT-94	
APPR JIM PIEKARSKI	DATE 20-OCT-94	
OTHER M POTTER-HUMMER	DATE 20-OCT-94	

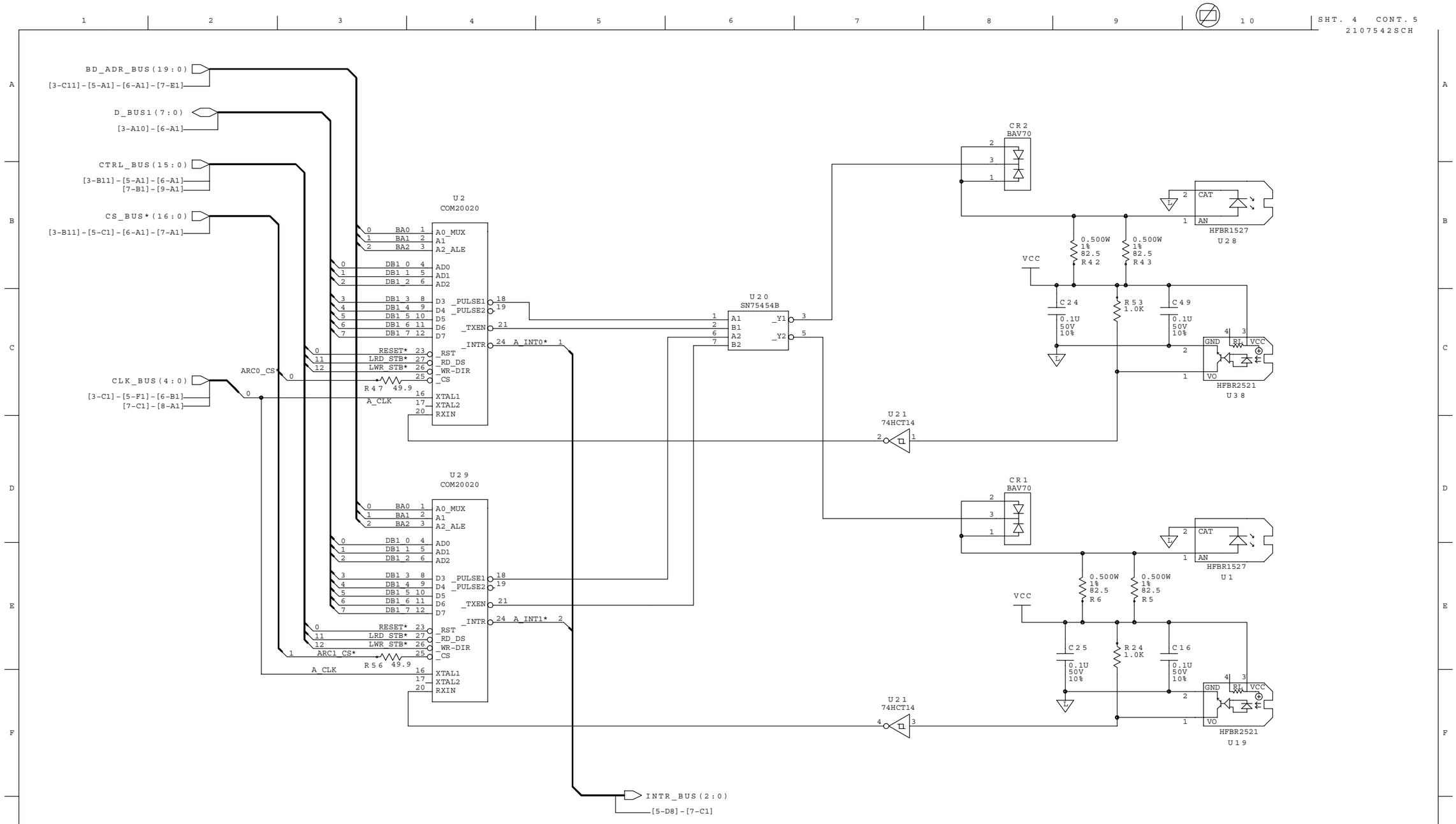
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DRAWING NO.	REV	SIZE	SHT./CONT. ON
2107542SCH	0	B	1/2



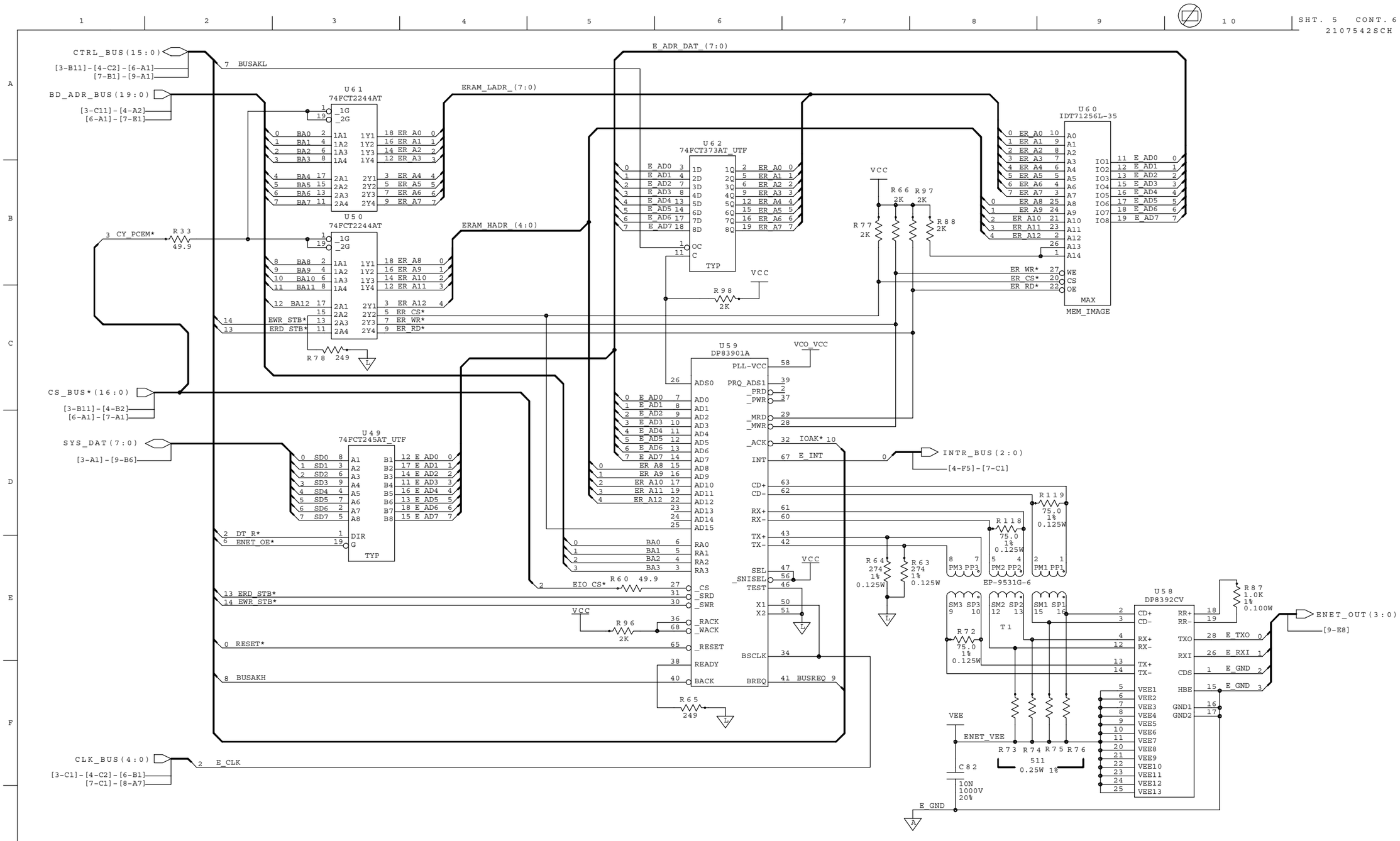
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REV 1 PCN — DESCRIPTION MADE BY — DATE — APPR BY — DATE	MADE piekarski_j — DATE 28/Jan/94 CHECK JIM WOODS — DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN — DESCRIPTION MADE BY — DATE — APPR BY — DATE	APPR JIM PIEKARSKI — DATE 20-OCT-94 OTHER M POTTER-HUMMER — DATE 20-OCT-94		DRAWING NO. 2107542SCH — REV 0 — SIZE B — SHT./CONT. ON 2/3



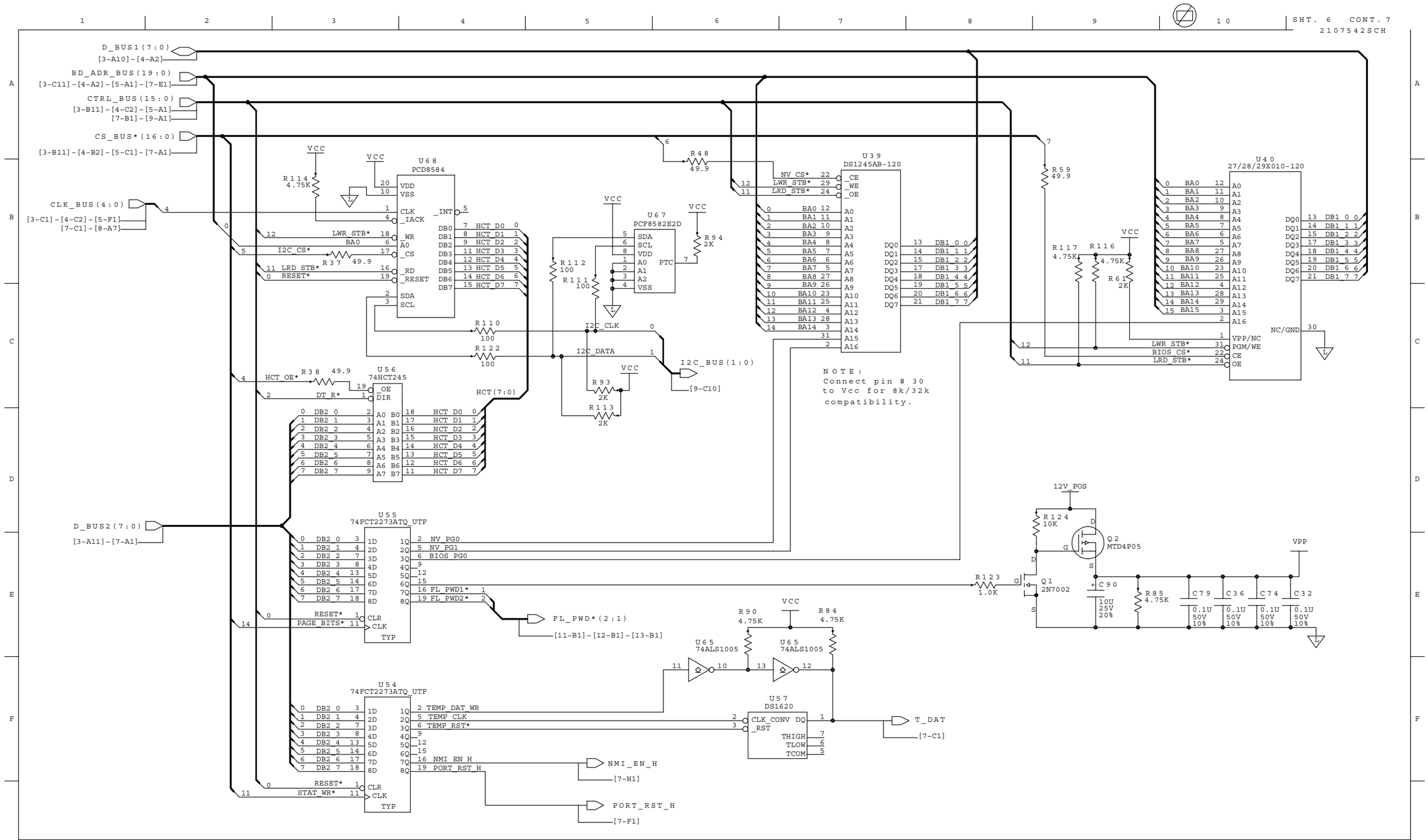
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REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE piekarski_j DATE 28/Jan/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2107542SCH · REV 0 · SIZE B · SHT./CONT. ON 3/4



BLOCK PATHNAME /user/xr_pwa/adx2_asc_biu/arcnet			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE piekarski_j DATE 28/JAN/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 4/5



BLOCK PATHNAME /user/xr_pwa/adx2_asc_biu/ethernet			BLOCK SHT 1 OF 1
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE piekarski_j DATE 28/Jan/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 5/6



BLOCK PATHNAME /user/xr_pwa/adx2_asc_biu/nv_rom				BLOCK SHT 1 OF 1	
REV 1 PCN / MADE BY / DATE / APPR BY / DATE		MADE piekarski_j DATE 28/Jan/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II	
REV 2 PCN / MADE BY / DATE / APPR BY / DATE				DRAWING NO. 2107542SCH	REV 0 / SIZE B / SHT./CONT. ON 6/7

SHT. 7 CONT. 8
2107542SCH

D_BUS2(7:0) [3-A11]-[6-D1]
CS_BUS*(16:0) [3-B11]-[4-B2] [5-C1]-[6-A1]
CTRL_BUS(15:0) [3-B11]-[4-C2]-[5-A1] [6-A1]-[9-A1]
T_DAT [6-F7]
INTR_BUS(2:0) [4-F5]-[5-D8]
BD_ADR_BUS(19:0) [3-C11]-[4-A2] [5-A1]-[6-A1]
CLK_BUS(4:0) [3-C1]-[4-C2]-[5-F1] [6-B1]-[8-A7]
PORT_RST_H [6-H5]
SYS_CTRL(10:0) [3-C1]-[9-A6]
NMI_EN_H [6-H5]

BKPL_IF(15:0) [9-A11]

U23 74FCT2244AT
13 INT_STAT* 1 _1G
19 _2G
2 LBAT* 2 1A1 1Y1 18 DB2_0_0
3 SWIND_IN* 4 1A2 1Y2 16 DB2_1_1
6 SP_I1* 6 1A3 1Y3 14 DB2_2_2
7 CRST_DET* 8 1A4 1Y4 12 DB2_3_3
17
2 A_INT1* 15 2A1 2Y1 3 DB2_4_4
1 A_INT0* 13 2A2 2Y2 5 DB2_5_5
0 E_INT 11 2A3 2Y3 7 DB2_6_6
2A4 2Y4 9 DB2_7_7
TYP

R91 249
U66 74FCT2244AT
1 _1G
19 _2G
8 POK* 2 1A1 1Y1 18 BPOK* 0
9 OP_RTB_RESET* 4 1A2 1Y2 16 OP_RST* 1
10 LOW_BATT* 6 1A3 1Y3 14 LBAT* 2
11 SW_IND_IN* 8 1A4 1Y4 12 SWIND_IN* 3
12 PWR_UNIT_OFF* 17 2A1 2Y1 3 PU_OFF* 4
13 ERLY_CPU_RST* 15 2A2 2Y2 5 ECPU_RST* 5
14 SPARE_IN1* 13 2A3 2Y3 7 SP_I1* 6
15 CON_RST_DET* 11 2A4 2Y4 9 CRST_DET* 7
TYP
BKPL_STAT(7:0)

U53 74FCT373AT_UTF
0 BPOK* 3 1D 1Q 2 DB2_0_0
1 OP_RST* 4 2D 2Q 5 DB2_1_1
4 PU_OFF* 7 3D 3Q 6 DB2_2_2
5 ECPU_RST* 8 4D 4Q 9 DB2_3_3
0 L_POK* 13 5D 5Q 12 DB2_4_4
1 L_OP_RTB_RST* 14 6D 6Q 15 DB2_5_5
3 L_PUNIT_OFF* 17 7D 7Q 16 DB2_6_6
2 L_ECPU_RST* 18 8D 8Q 19 DB2_7_7
10 BKPL_RD* 1 OC
11 C
TYP

U52 74FCT2273ATQ_UTF
0 DB2_0 3 1D 1Q 2 SUICIDE_RST
1 DB2_1 4 2D 2Q 5 RTB_RESET
2 DB2_2 7 3D 3Q 6 OP_RESET
3 DB2_3 8 4D 4Q 9 CRST_DET_CLR
4 DB2_4 13 5D 5Q 12 UPS_SHUT_OFF
5 DB2_5 14 6D 6Q 15 SW_IND_OUT
6 DB2_6 17 7D 7Q 16 DISP_STAT_1
7 DB2_7 18 8D 8Q 19 DISP_STAT_2
0 RESET* 1 CLR
9 BKPL_WR* 11 CLK
TYP

U64 74ALS1005
U64 74ALS1005
U64 74ALS1005
U64 74ALS1005
U64 74ALS1005
U65 74ALS1005
U65 74ALS1005

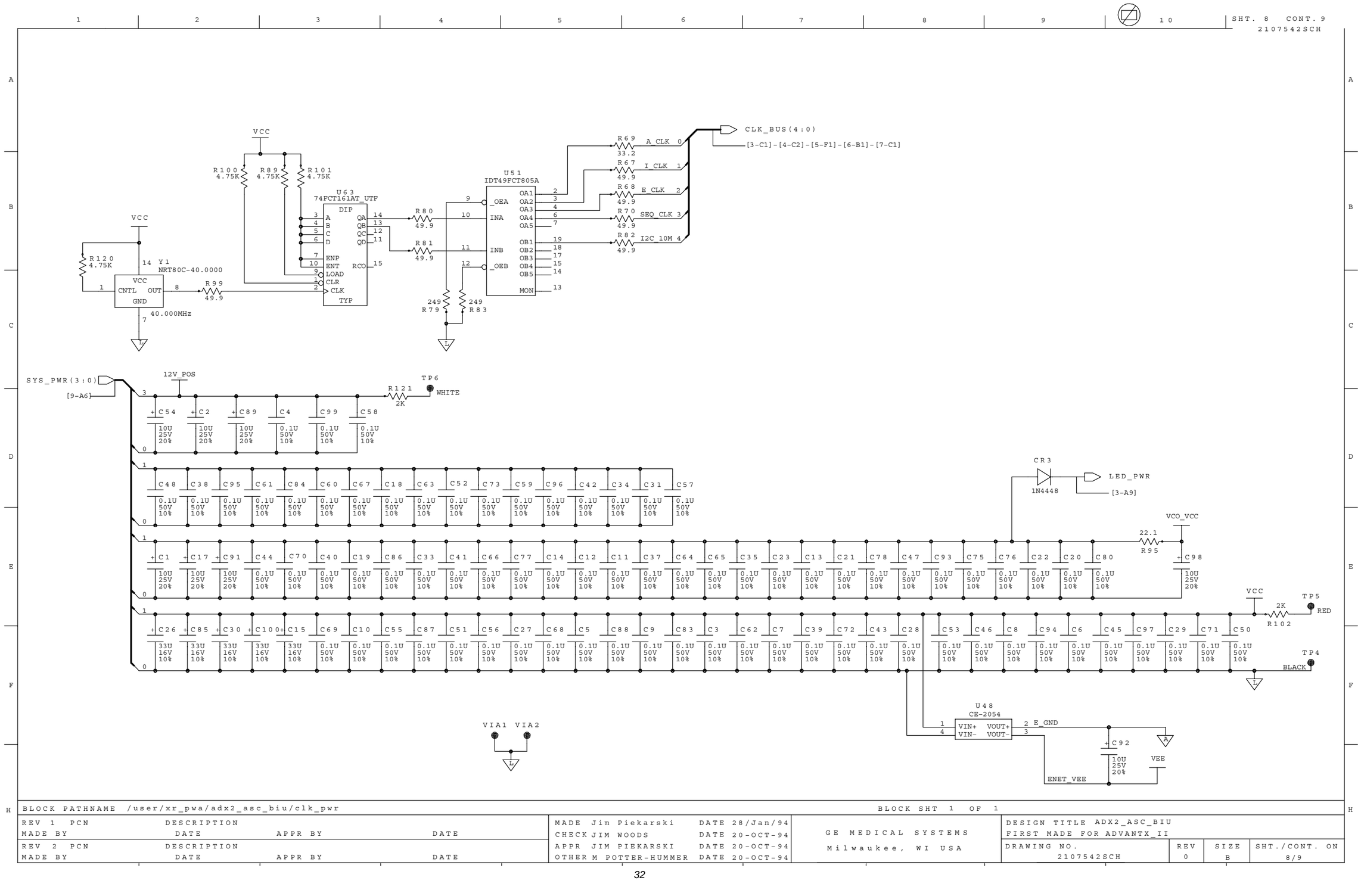
U31 74FCT2273ATQ_UTF
0 DB2_0 3 1D 1Q 2 I1_LEV0 0
1 DB2_1 4 2D 2Q 5 I1_LEV1 1
2 DB2_2 7 3D 3Q 6 I1_LEV2 2
3 DB2_3 8 4D 4Q 9 EN_EINT 3
4 DB2_4 13 5D 5Q 12 I2_LEV0 4
5 DB2_5 14 6D 6Q 15 I2_LEV1 5
6 DB2_6 17 7D 7Q 16 I2_LEV2 6
7 DB2_7 18 8D 8Q 19 EN_AINT 7
0 RESET* 1 CLR
15 INT_CFG* 11 CLK
TYP
INT_CONFIG(7:0)

U9 EPM7096-15
0 I1_LEV0 16 IO_MC1 IO_MC45 31 INT_STAT* 13
1 I1_LEV1 15 IO_MC3 IO_MC46 30 INT_CFG* 15
2 I1_LEV2 14 IO_MC4 IO_MC48 29 E_INT
3 EN_EINT 12 IO_MC6 IO_MC49 44 BPOK* 0
4 I2_LEV0 11 IO_MC8 IO_MC51 45 OP_RST* 1
5 I2_LEV1 10 IO_MC9 IO_MC53 48 PU_OFF* 4
6 I2_LEV2 9 IO_MC11 IO_MC54 49 ECPU_RST* 5
7 EN_AINT 8 IO_MC12 IO_MC56 50 L_POK* 0
5 IO_MC14 IO_MC57 51 L_OP_RTB_RST* 1
RST* 4 IO_MC16 IO_MC59 52 L_ECPU_RST* 2
2 A_INT1* 28 IO_MC17 IO_MC61 54 L_PUNIT_OFF* 3
1 A_INT0* 27 IO_MC19 IO_MC62 55
11 LRD_STB* 25 IO_MC21 IO_MC64 56
12 LWR_STB* 24 IO_MC22 IO_MC65 57
4 DB2_OE* 23 IO_MC24 IO_MC67 58
0 BA0 22 IO_MC25 IO_MC69 60
1 BA1 21 IO_MC27 IO_MC70 61
2 BA2 20 IO_MC28 IO_MC72 62
3 BA3 18 IO_MC29 IO_MC73 63
16 BD_BASE_CS* 17 IO_MC32 IO_MC75 64
14 PAGE_BITS* 41 IO_MC33 IO_MC76 65
11 STAT_WR* 40 IO_MC35 IO_MC77 67
5 I2C_CS* 37 IO_MC37 IO_MC80 68 NMI_EN_H
4 HCT_OE* 36 IO_MC38 IO_MC81 69 BUS_RESET
10 BKPL_RD* 35 IO_MC40 IO_MC83 70 IO_CHNL_CHK 8
9 BKPL_WR* 34 IO_MC41 IO_MC84 71 ISA_INT_0 0
33 IO_MC43 IO_MC86 73 ISA_INT_1 1
I_OE* 84 IN/OE1 IO_MC88 74 ISA_INT_2 2
2 IN/OE2 IO_MC89 75 ISA_INT_3 3
IO_MC91 76 ISA_INT_4 4
IO_MC92 77 ISA_INT_5 5
1 IN/GCLR IO_MC94 80 ISA_INT_6 6
83 IN/GCLK IO_MC96 81 ISA_INT_7 7
2118567-2
L_STAT(3:0)

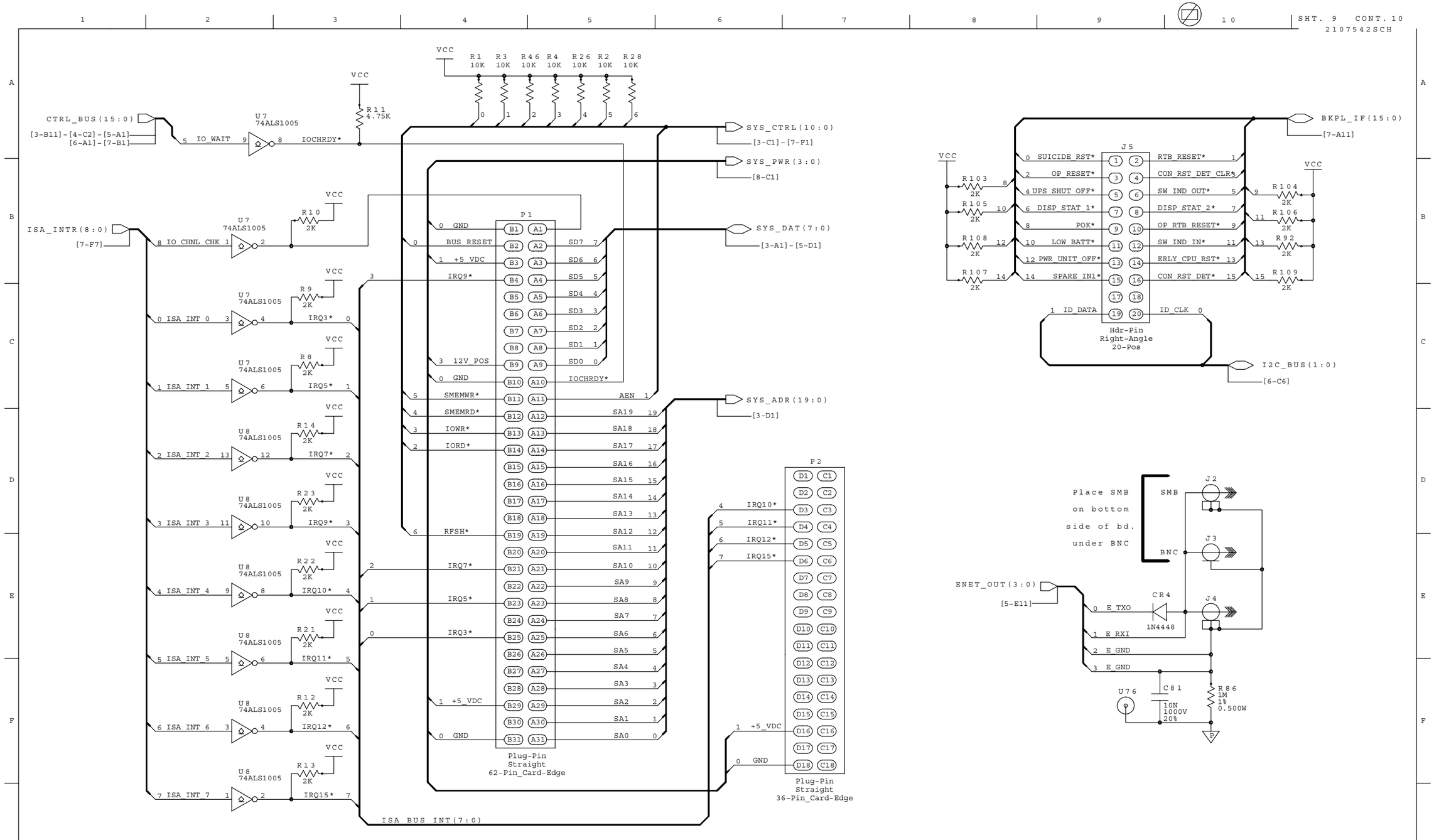
VCC
R115 4.75K
R31 249
R34 49.9
1 I_CLK
BUS_RESET

ISA_INTR(8:0) [9-B1]

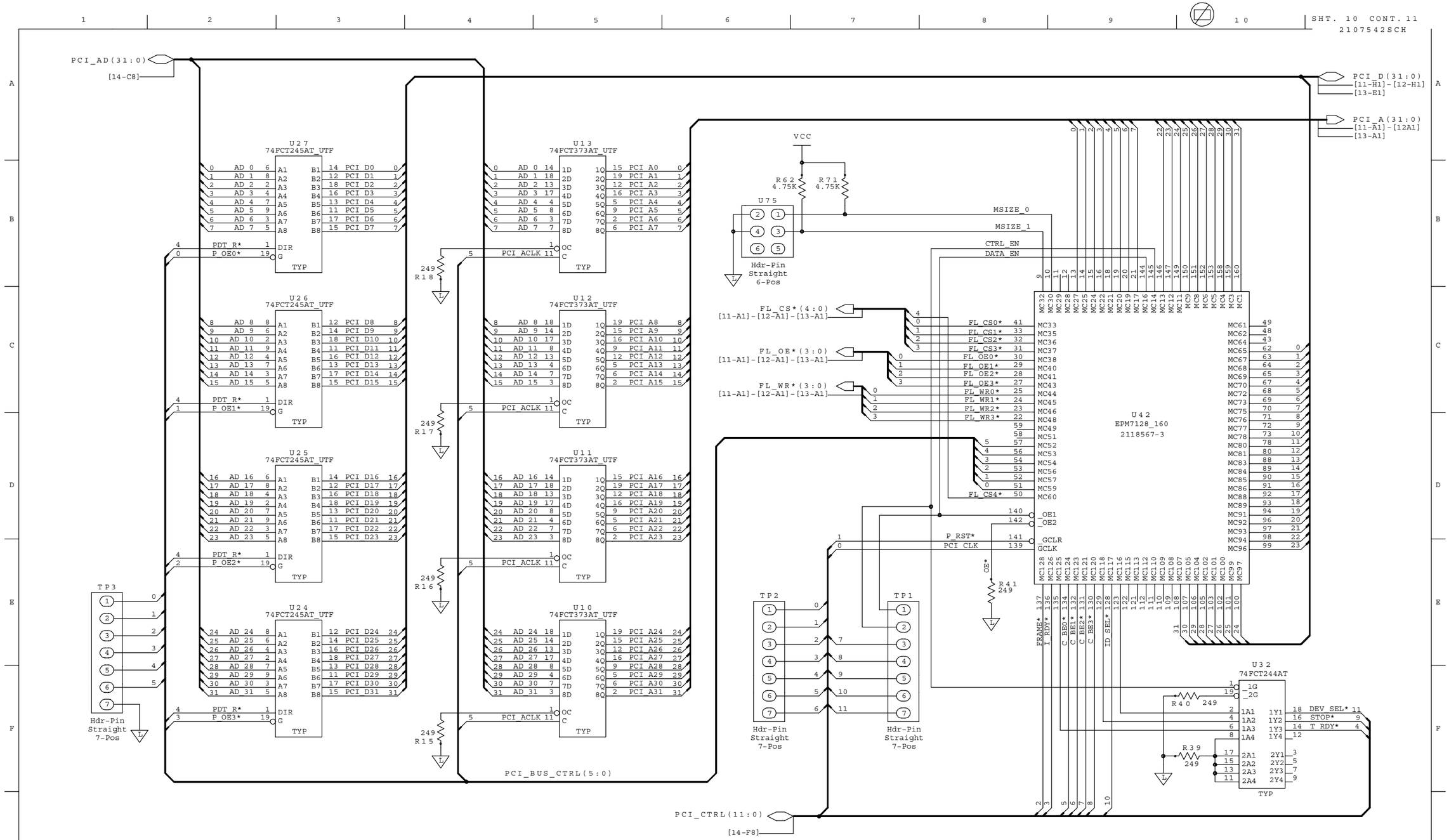
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REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 7/8



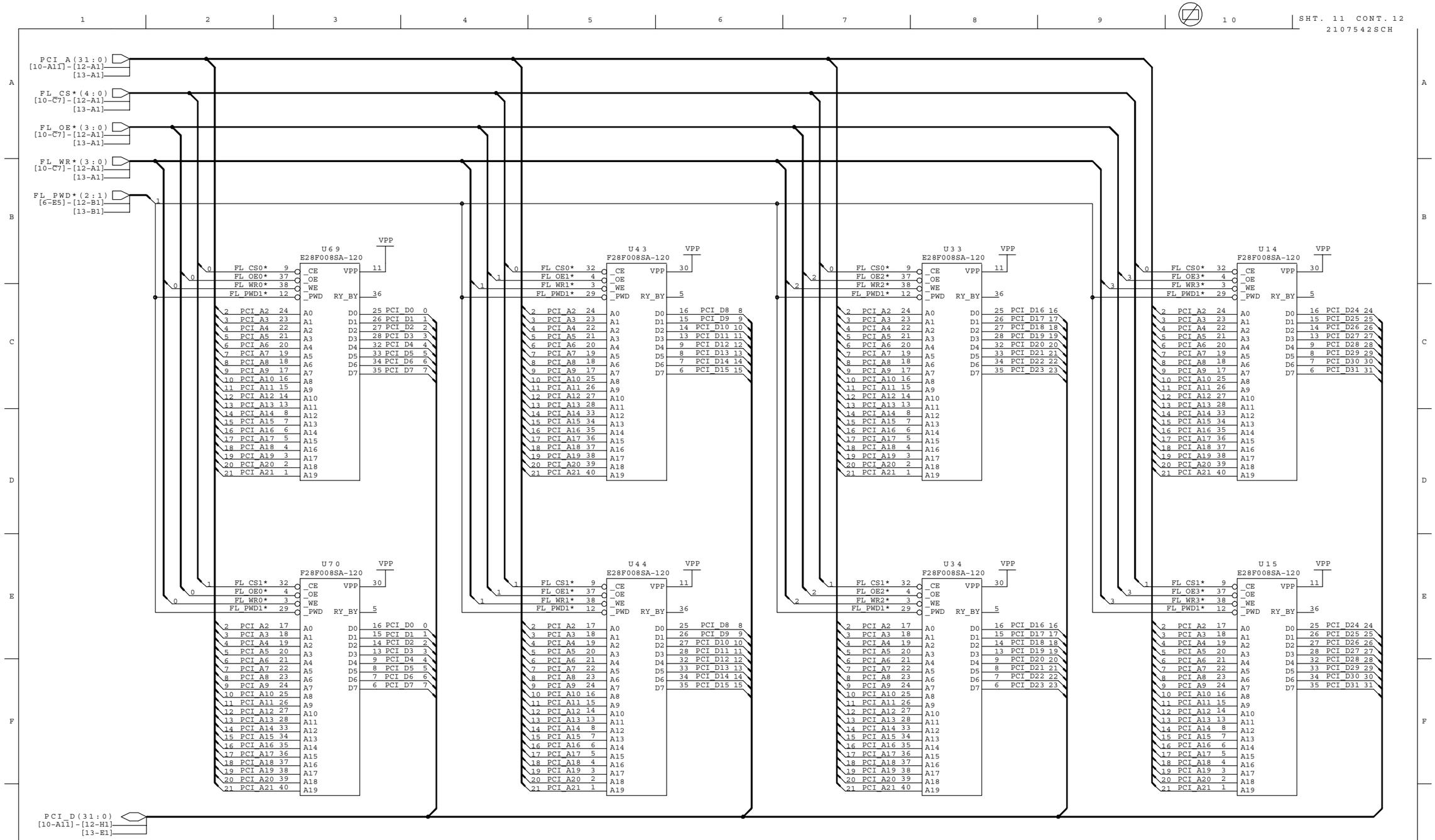
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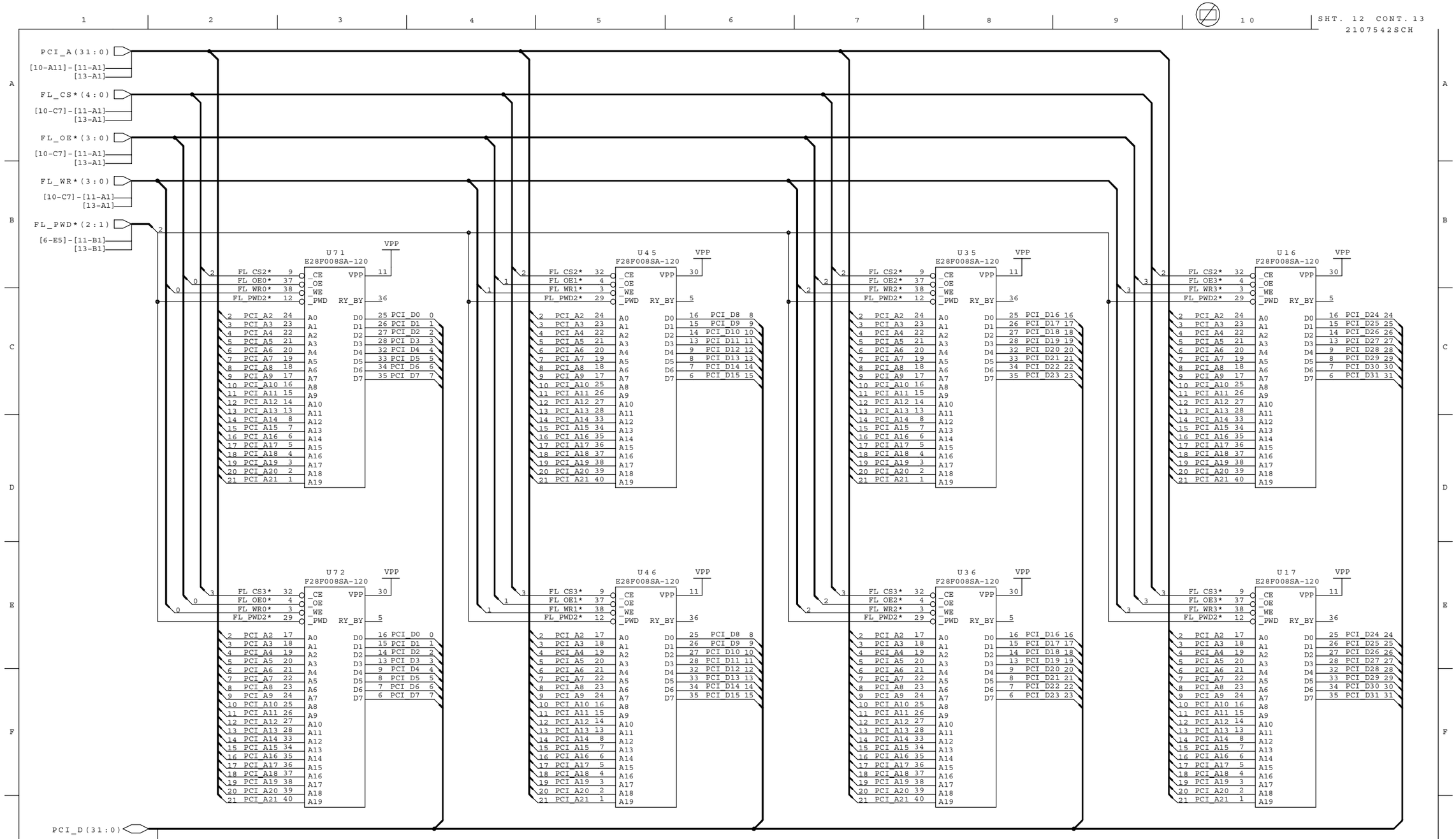
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REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 9/10



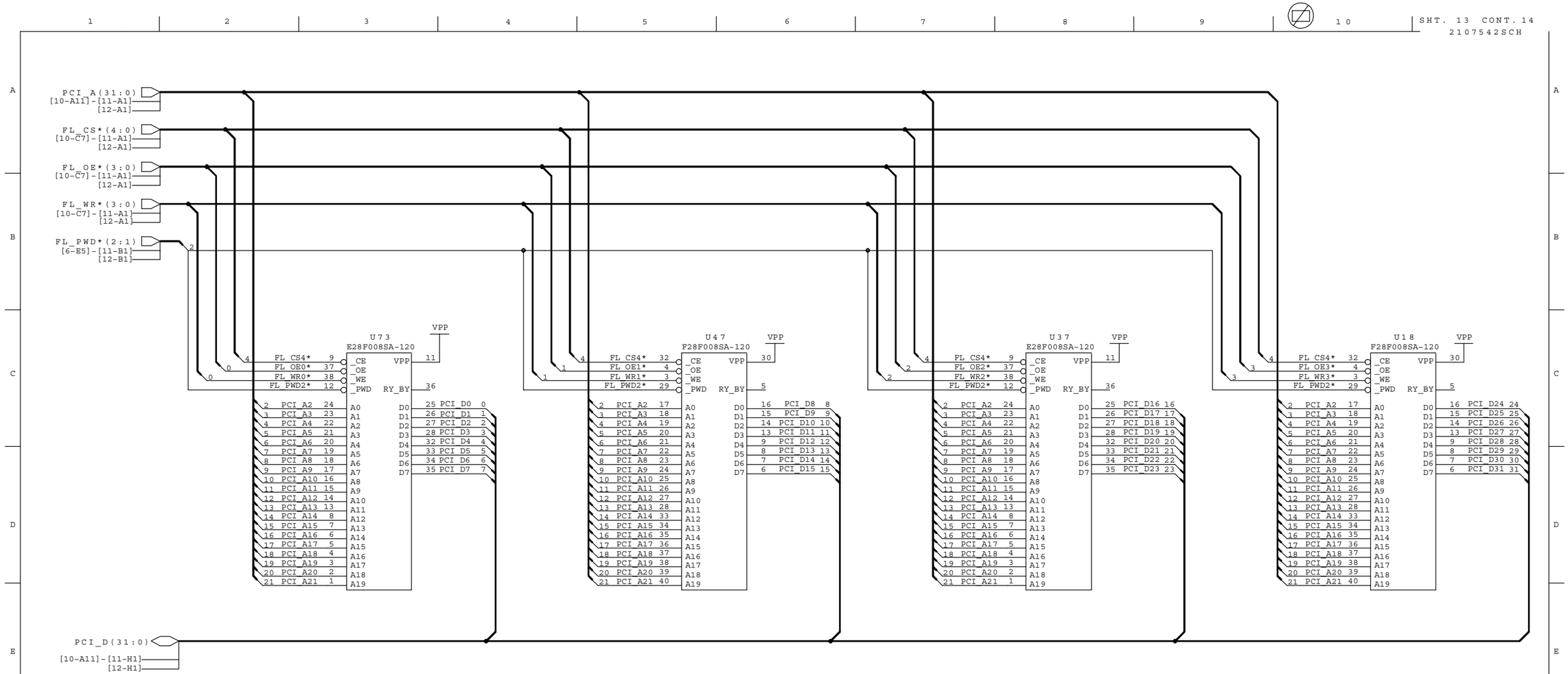
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REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE piekarski_j DATE 28/Jan/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
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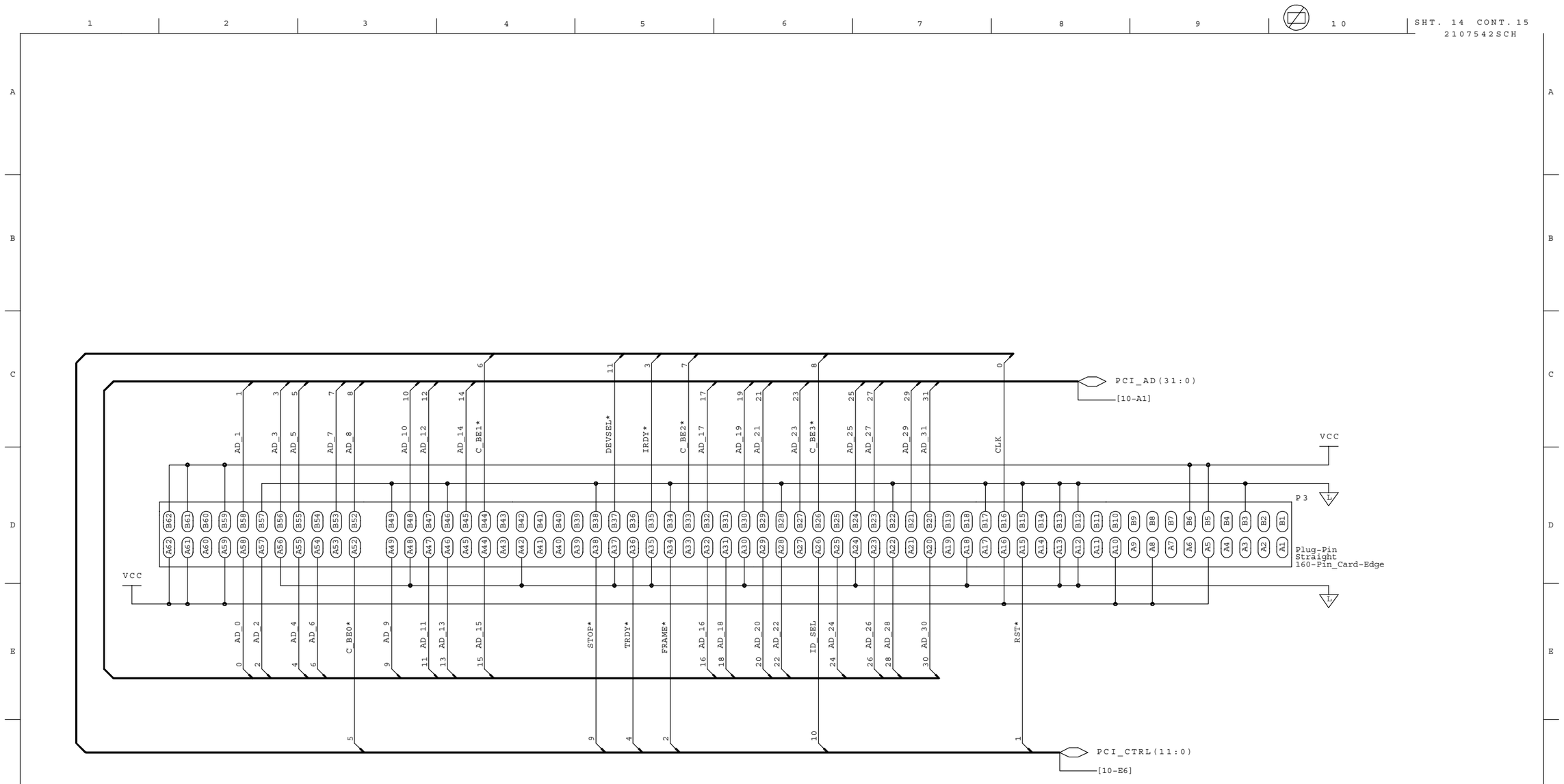
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REV 2 PCN — DESCRIPTION MADE BY — DATE — APPR BY — DATE			DRAWING NO. 2107542SCH — REV 0 — SIZE B — SHT./CONT. ON 11/12



BLOCK PATHNAME /user/xr_pwa/adx2_asc_biu/flash_2			BLOCK SHT 1 OF 1
REV 1 PCN	DESCRIPTION	MADE piekarski_j DATE 11/Feb/94	GE MEDICAL SYSTEMS Milwaukee, WI USA
MADE BY	DATE APPR BY DATE	CHECK JIM WOODS DATE 20-OCT-94	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN	DESCRIPTION	APPR JIM PIEKARSKI DATE 20-OCT-94	DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 12/13
MADE BY	DATE APPR BY DATE	OTHER M POTTER-HUMMER DATE 20-OCT-94	



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REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2107542SCH	REV 0	SIZE B / SHT./CONT. ON 13/14

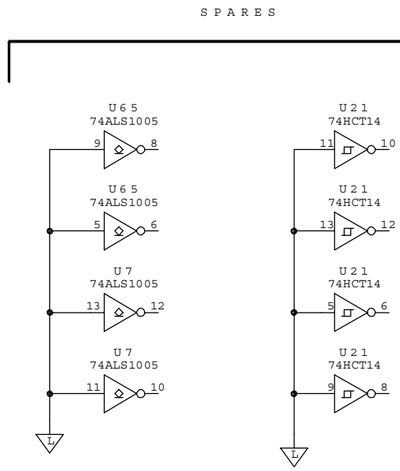


BLOCK PATHNAME /user/xr_pwa/adx2_asc_biu/pci_conn		BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE piekarski_j DATE 11/Feb/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2107542SCH · REV 0 · SIZE B · SHT./CONT. ON 14/15

1 2 3 4 5 6 7 8 9 10

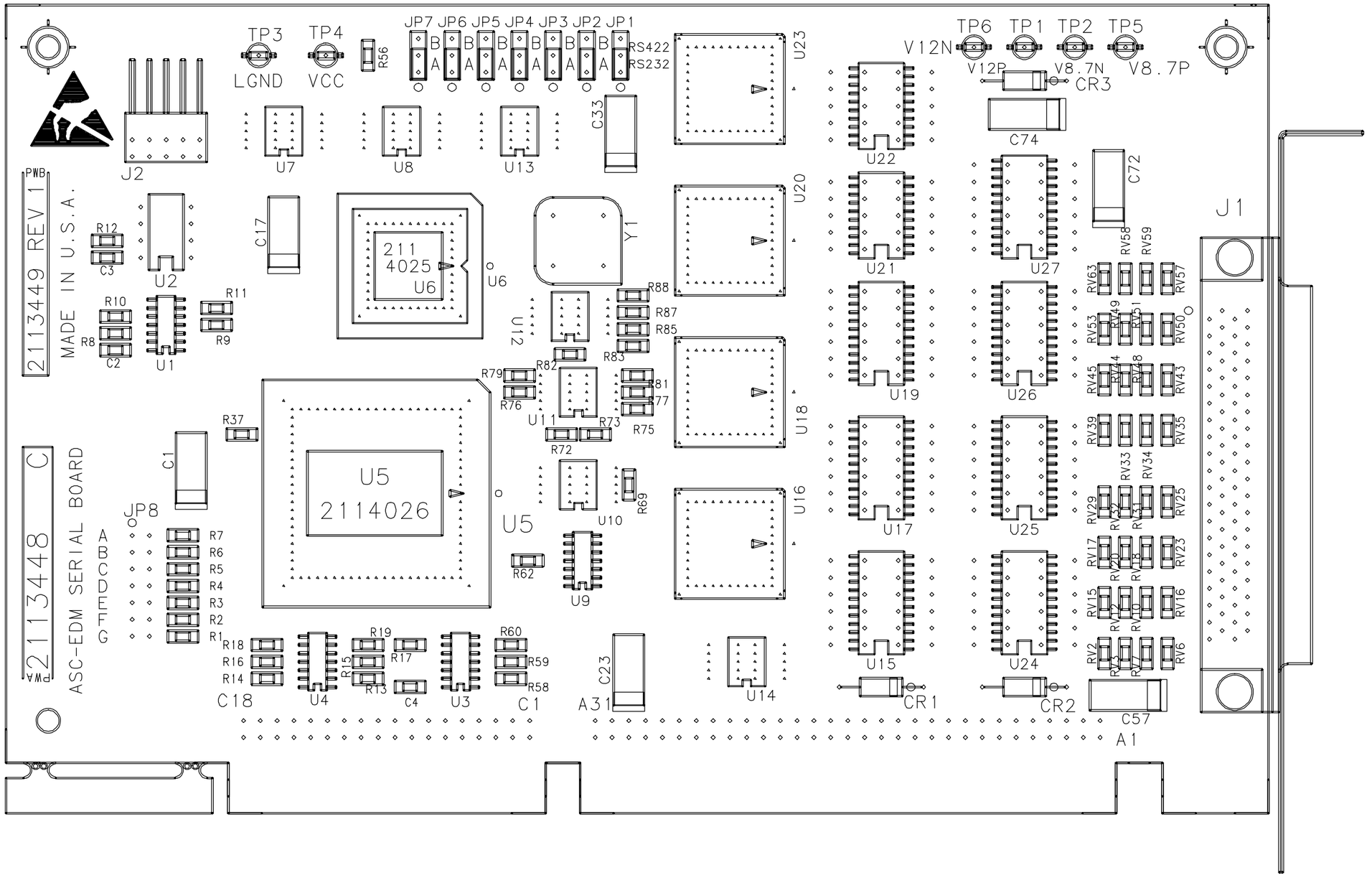
SHT. 15 CONT. - 2107542SCH

SPARES



BLOCK PATHNAME /user/advantx_ii/asc_biu				BLOCK SHT 1 OF 1	
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE piekarski_j DATE 28/Jan/94 CHECK JIM WOODS DATE 20-OCT-94 APPR JIM PIEKARSKI DATE 20-OCT-94 OTHER M POTTER-HUMMER DATE 20-OCT-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADX2_ASC_BIU FIRST MADE FOR ADVANTX_II
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE			DRAWING NO. 2107542SCH / REV 0 / SIZE B / SHT./CONT. ON 15/-

SECTION 5
SKL A1 A2, 2113448 (SERIAL BOARD)



SHT. 1 CONT. 2
2113448SCH

SHEET_NAME	SHT NUM	REV
COVER_SHEET	1	0
BLOCK_DIAGRAM	2	0
SERIAL_PC_IF	3	0
INT_CNTRL_IF	4	0
DUART_IF	5	0
DUART_IF	6	0
SERIAL_CLK_PWR	7	0
DUART_CONN	8	0
ISA_BUS_CONN	9	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------		
0	------		

NOTE:
VERIFY THIS PRINT IS THE LATEST REVISION USING GE PRODUCT STRUCTURE SYSTEM (PSS).

NOTES:
1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2113448 B
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.1W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

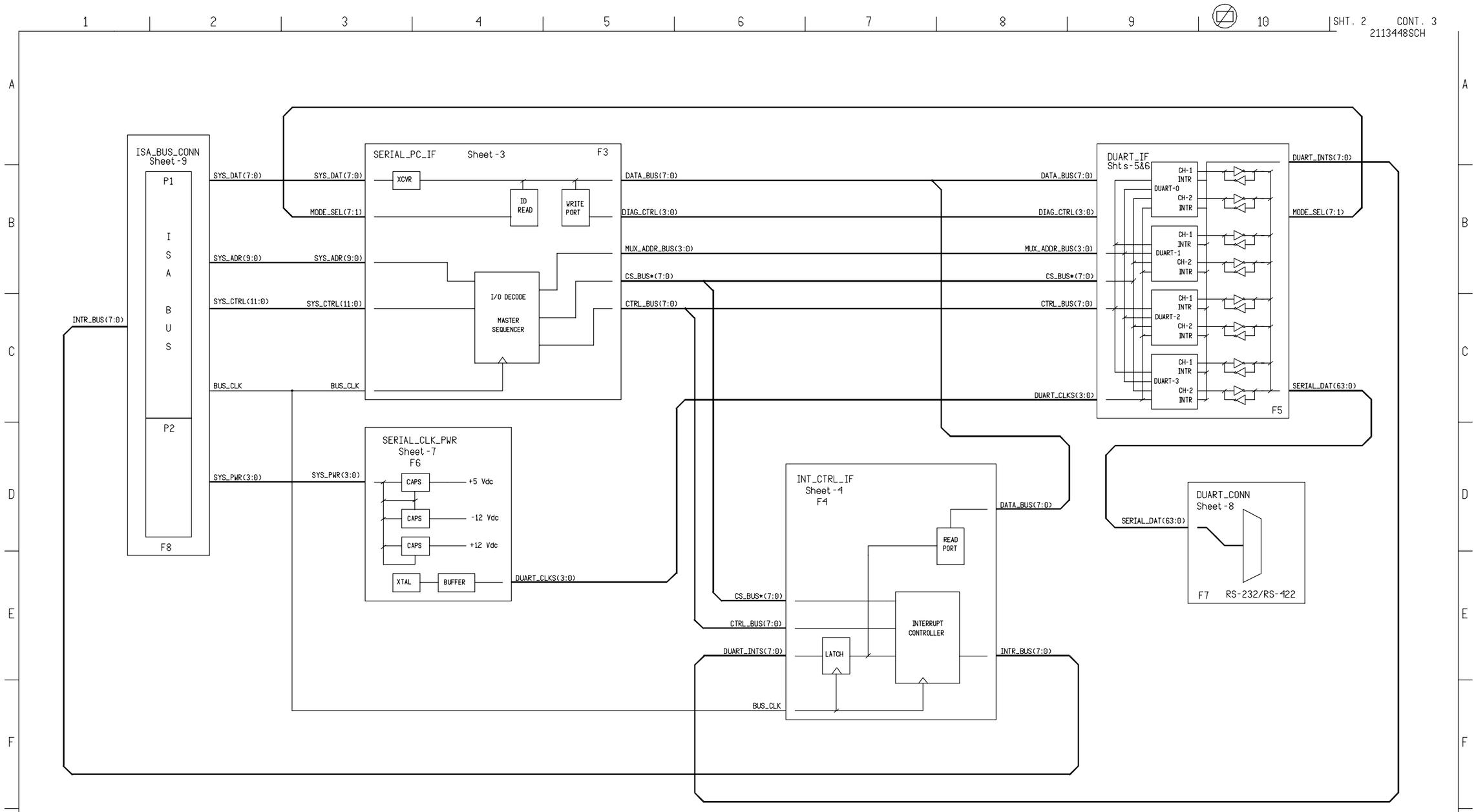
BLOCK PATHNAME /user/xr_pwa/serial_pwa/cover_sheet
BLOCK SHT 1 OF 1

REV 1 PCN DESCRIPTION
MADE BY DATE APPR BY DATE
REV 2 PCN DESCRIPTION
MADE BY DATE APPR BY DATE

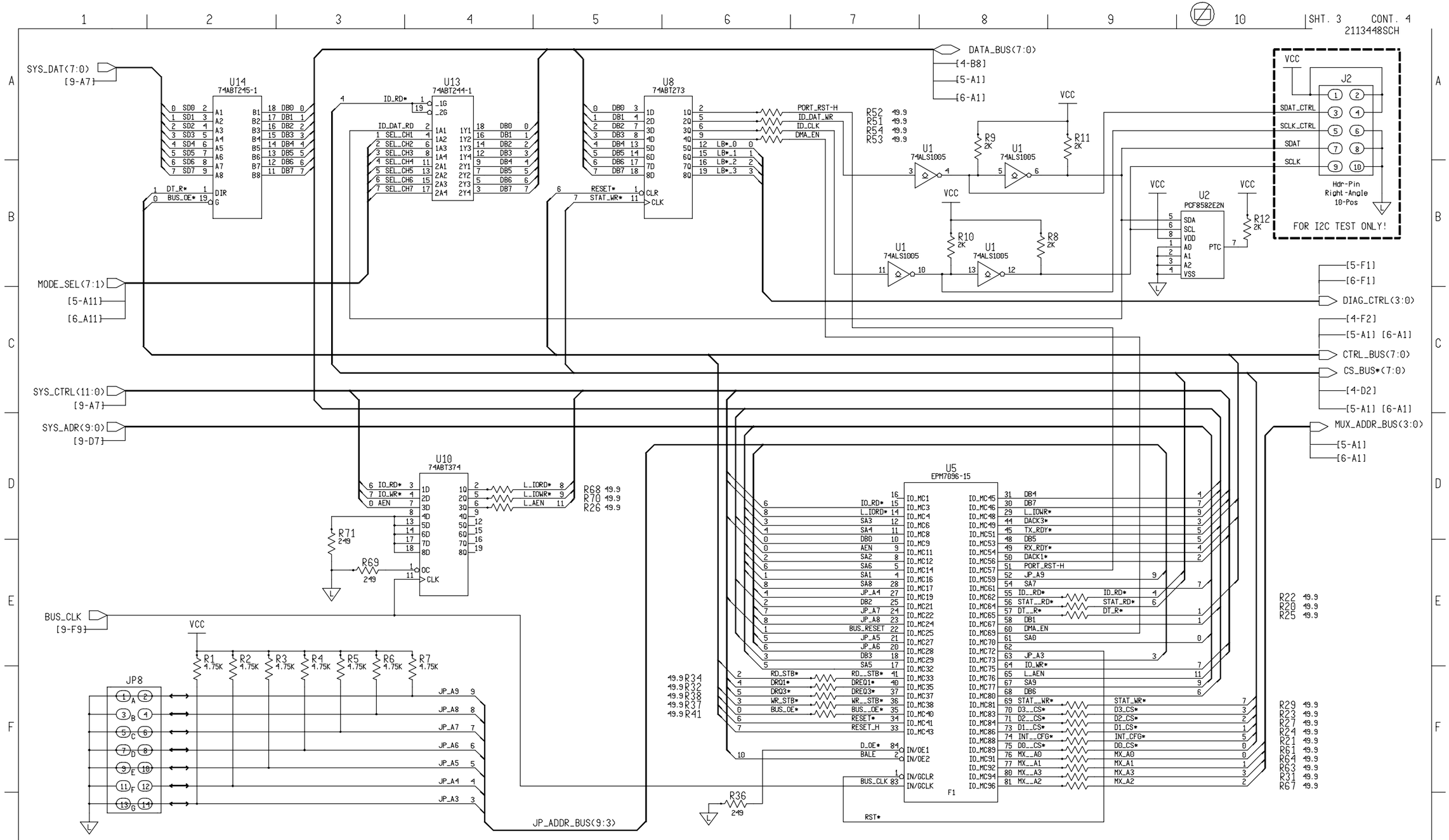
MADE C. SCHWARZ DATE 11/05/94
CHECK DATE
APPR DATE
OTHER DATE

GE MEDICAL SYSTEMS
MILWAUKEE, WI USA

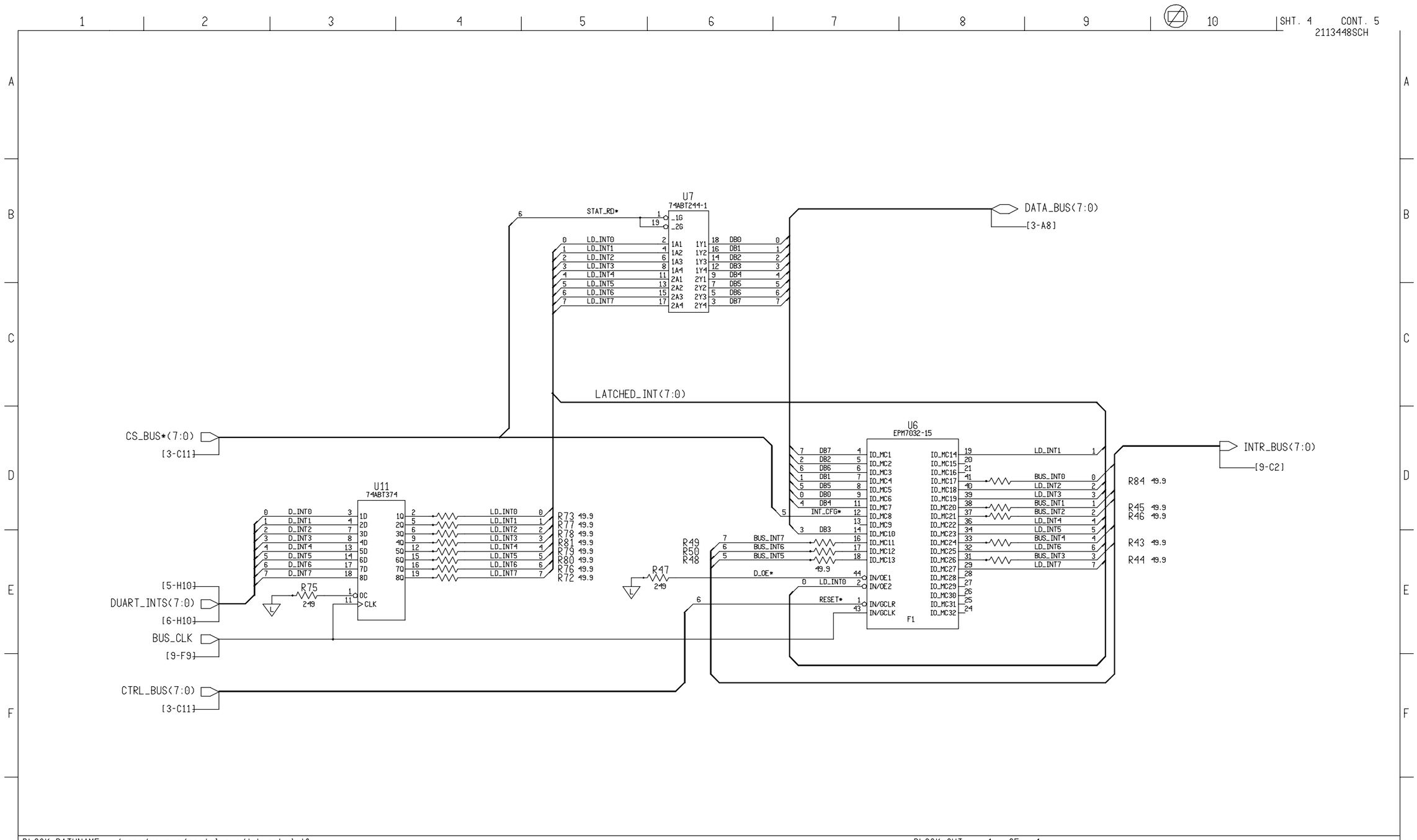
DESIGN TITLE ASC-EDM_SERIAL_PWA
FIRST MADE FOR ADVANTX II
DRAWING NO. 2113448SCH | REV 0 | SIZE B | SHT/CONT. ON 1 / 2



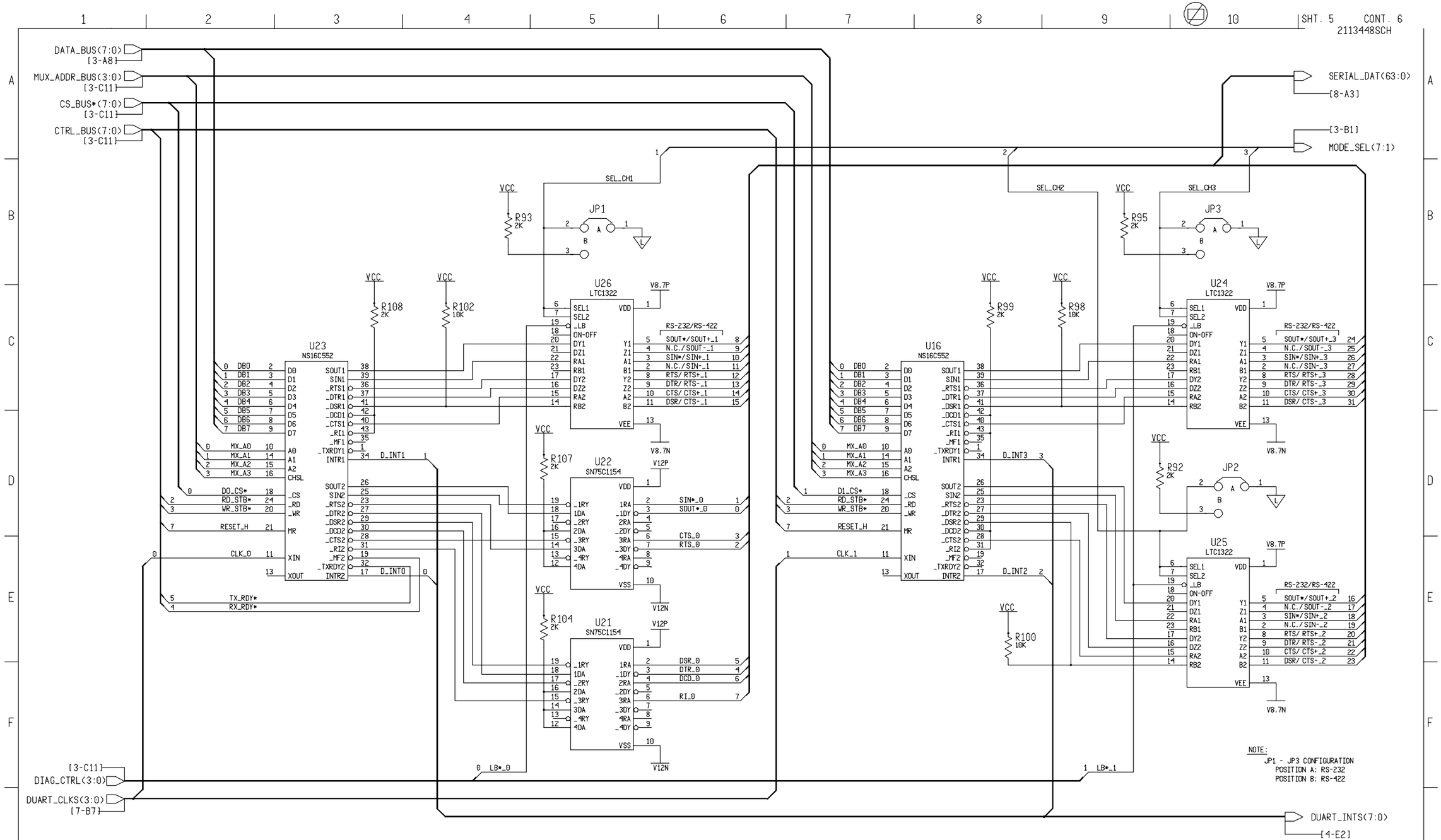
BLOCK PATHNAME /user/xr_pwa/serial_pwa				BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE C. SCHWARZ DATE 11/05/94 CHECK DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA FIRST MADE FOR ADVANTX II		
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE	APPR DATE OTHER DATE		DRAWING NO. 2113448SCH	REV 0	SIZE B / SHT/CONT. ON 2 / 3

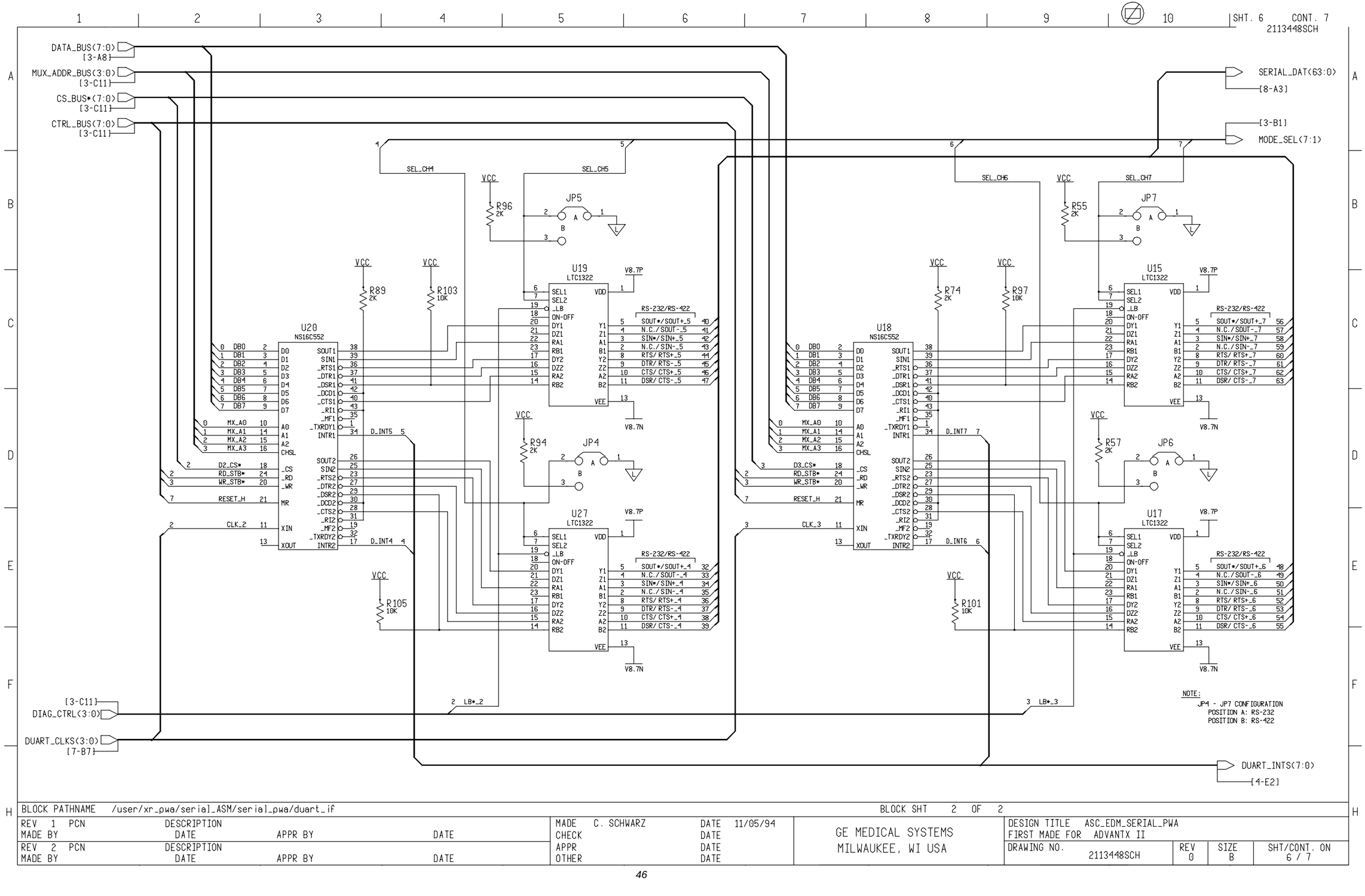


BLOCK PATHNAME /user/xr_pwa/serial_ASM/serial_pwa/serial_pc_if				BLOCK SHT 1 OF 1	
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE C. SCHWARZ CHECK APPR OTHER	DATE 11/05/94 DATE DATE DATE
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA FIRST MADE FOR ADVANTX II DRAWING NO. 2113448SCH / REV 0 / SIZE B / SHT/CONT. ON 3 / 4



BLOCK PATHNAME /user/xr_pwa/serial_pwa/int_cntrl_if				BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE C. SCHWARZ CHECK APPR OTHER	DATE 11/05/94 DATE DATE DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA FIRST MADE FOR ADVANTX II	
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE				DRAWING NO. 2113448SCH	REV 0 / SIZE B / SHT/CONT. ON 4 / 5


SHT. 5 CONT. 6
2113448SCH
DATA_BUS(7:0)
[3-A8]
MUX_ADDR_BUS(3:0)
[3-C11]
CS_BUS*(7:0)
[3-C11]
CTRL_BUS(7:0)
[3-C11]
SERIAL_DAT(63:0)
[8-A3]
[3-B1]
MODE_SEL(7:1)
SEL_CH1
SEL_CH2
SEL_CH3
JP1
JP2
JP3
R93 2K
R95 2K
R92 2K
R108 2K
R102 10K
R99 2K
R98 10K
R107 2K
R104 2K
R100 10K
U23 NS16C552
U16 NS16C552
U26 LTC1322
U24 LTC1322
U25 LTC1322
U22 SN75C1154
U21 SN75C1154
RS-232/RS-422
D_INT1
D_INT3
D_INT2
D_INT0
CLK_0
CLK_1
TX_RDY*
RX_RDY*
LB*_0
LB*_1
[3-C11]
DIAG_CTRL(3:0)
DUART_CLKS(3:0)
[7-B7]
DUART_INTS(7:0)
[4-E2]
NOTE:
JP1 - JP3 CONFIGURATION
POSITION A: RS-232
POSITION B: RS-422
BLOCK PATHNAME /user/xr_pwa/serial_ASM/serial_pwa/duart_if
BLOCK SHT 1 OF 2
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE C. SCHWARZ
DATE 11/05/94
CHECK
APPR
OTHER
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE ASC-EDM_SERIAL_PWA
FIRST MADE FOR ADVANTX II
DRAWING NO. 2113448SCH
REV 0
SIZE B
SHT/CONT. ON 5 / 6


SHT. 6 CONT. 7
2113448SCH
DATA_BUS(7:0)
[3-A8]
MUX_ADDR_BUS(3:0)
[3-C11]
CS_BUS*(7:0)
[3-C11]
CTRL_BUS(7:0)
[3-C11]
SERIAL_DAT(63:0)
[8-A3]
[3-B1]
MODE_SEL(7:1)
SEL_CH4
SEL_CH5
SEL_CH6
SEL_CH7
VCC
R96 2K
R89 2K
R103 10K
R74 2K
R97 10K
R55 2K
R94 2K
R105 10K
R57 2K
R101 10K
JP5
JP4
JP7
JP6
U19 LTC1322
U27 LTC1322
U18 NS16C552
U15 LTC1322
U20 NS16C552
U17 LTC1322
V8.7P
V8.7N
RS-232/RS-422
D_INT5
D_INT4
D_INT7
D_INT6
[3-C11]
DIAG_CTRL(3:0)
DUART_CLKS(3:0)
[7-B7]
2 LB*_2
3 LB*_3
DUART_INTS(7:0)
[4-E2]
NOTE:
JP4 - JP7 CONFIGURATION
POSITION A: RS-232
POSITION B: RS-422
BLOCK PATHNAME /user/xr_pwa/serial_ASM/serial_pwa/duart_if
BLOCK SHT 2 OF 2
REV 1 PCN DESCRIPTION
MADE BY DATE APPR BY DATE
REV 2 PCN DESCRIPTION
MADE BY DATE APPR BY DATE
MADE C. SCHWARZ DATE 11/05/94
CHECK DATE
APPR DATE
OTHER DATE
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE ASC_EDM_SERIAL_PWA
FIRST MADE FOR ADVANTX II
DRAWING NO. 2113448SCH
REV 0
SIZE B
SHT/CONT. ON 6 / 7

SHT. 7 CONT. 8
2113448SCH

VCC
R90 2K
Y1 VCC OSC_TRI-S OE OUT 3.6864MHz GND
R91 49.9
U12 74ABT244-1
R82 249
R86 249
R88 10 CLK_0
R87 10 CLK_2
R85 10 CLK_3
R83 10 CLK_1
DUART_CLKS(3:0)
{5-H1}
{6-F1}

LTC1322
74ALS1005 74F14
74ABT244-1 74ABT245-1 74ABT273 74ABT374
75C1154

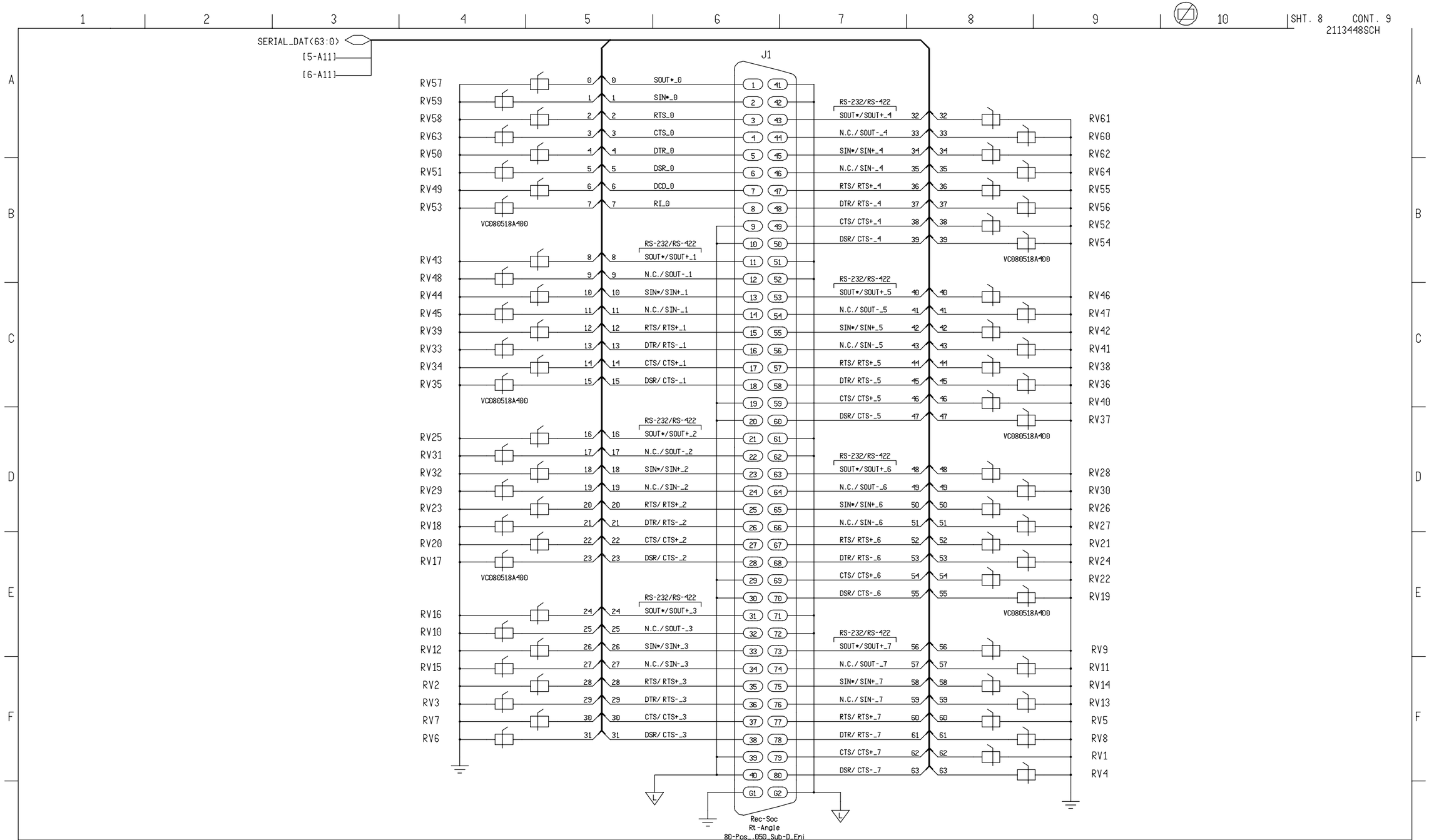
U1 74ALS1005
U3 74ALS1005
U3 74ALS1005
U1 74ALS1005
U9 74F14
U9 74F14
U9 74F14
U9 74F14

FPGA/_DUART_POWER_PIN-OUT_

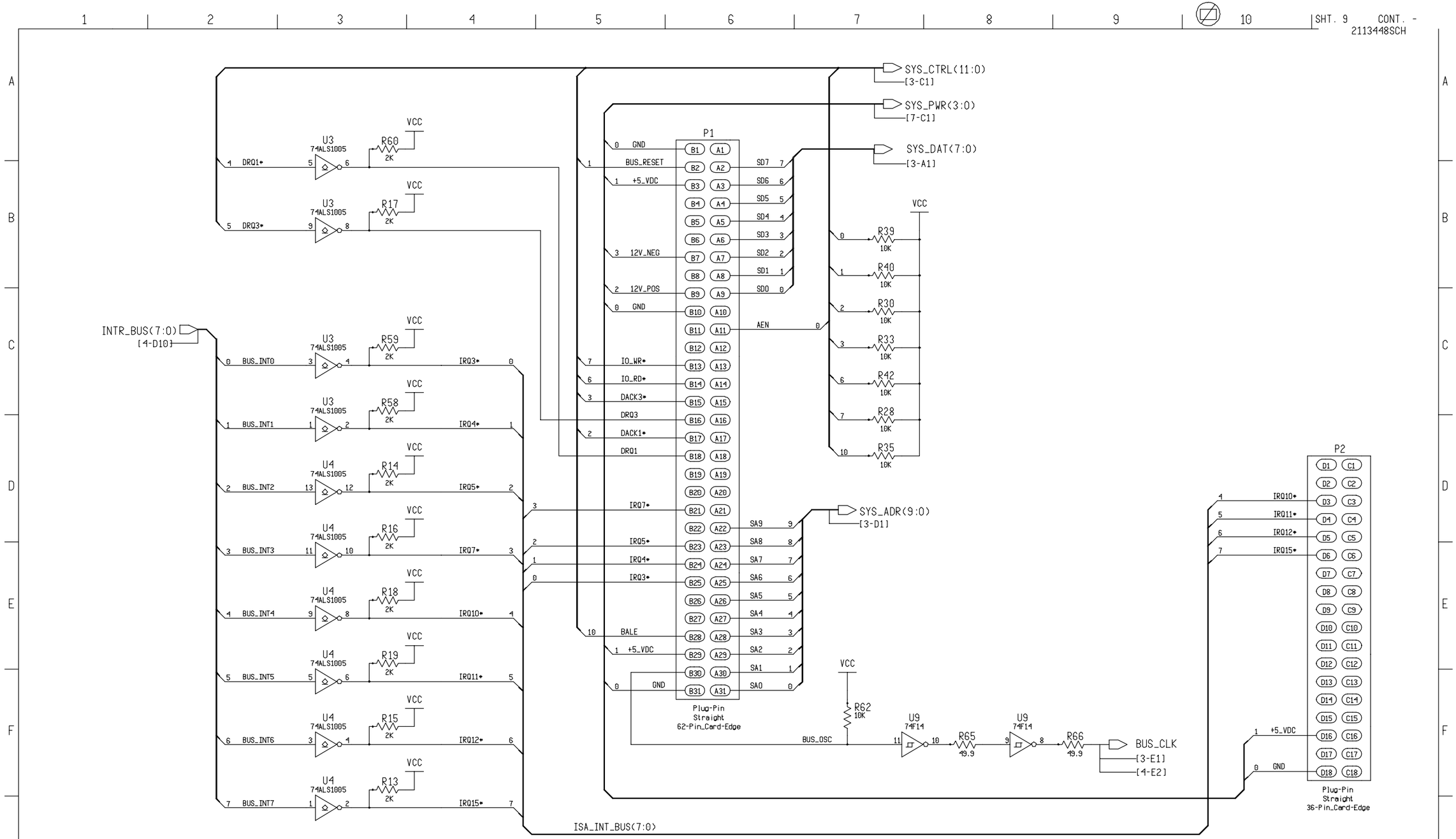
DEVICE	VCC	LGND
NS16C552	33, 44	12, 22
EPM7032	3, 15, 23, 35	10, 22, 30, 42
EPM7096	3, 13, 26, 38, 43, 53, 66, 78	7, 19, 32, 42, 47, 59, 72, 82

SYS_PWR(3:0)
{9-A7}
TP1 WHITE
R106 2K
V12P
CR1 1N4728A V3.3
V8.7P
TP5 WHITE
R110 2K
C37 C35 C54 C51 C36 C71 C70 C60 C38 C63 C43 C47 C67
C34 C21 C24 C10 C30 C11 C27 C55 C20 C25 C41 C29 C26 C2 C5 C32 C45 C4 C28 C3 C8 C12 C22
C23 C17 C1 C33 C72 C66 C69 C14 C15 C39 C61 C64 C50 C53 C46 C19 C18 C9 C6 C31 C42 C16 C13 C7 C49
VCC
R56 2K
TP4 RED
TP3 BLACK
C59 C58 C56 C52 C57 C74 C40 C62 C44 C65 C48 C68 C73
16.0V 1N4745 CR3
CR2 1N4728A 3.3V
R109 2K
TP6 WHITE
V12N
V8.7N
TP2 WHITE
R111 2K

BLOCK PATHNAME /user/xr_pwa/serial_pwa/serial_clk-pwr					BLOCK SHT 1 OF 1		
REV 1 PCN	DESCRIPTION			MADE C. SCHWARZ	DATE 11/05/94	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA
MADE BY	DATE	APPR BY	DATE	CHECK	DATE		FIRST MADE FOR ADVANTX II
REV 2 PCN	DESCRIPTION			APPR	DATE		DRAWING NO. 2113448SCH / REV 0 / SIZE B / SHT/CONT. ON 7 / 8
MADE BY	DATE	APPR BY	DATE	OTHER	DATE		



BLOCK PATHNAME /user/xr_pwa/serial_ASM/serial_pwa/duart_conn				BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE C. SCHWARZ DATE 11/05/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA FIRST MADE FOR ADVANTX II DRAWING NO. 2113448SCH	REV 0	SIZE B	SHT/CONT. ON 8 / 9

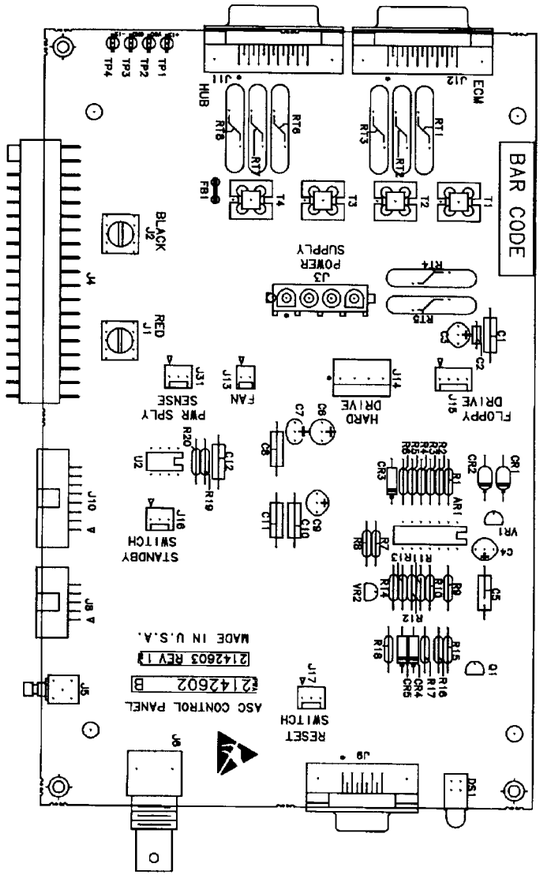


BLOCK PATHNAME /user/xr_pwa/serial_ASM/serial_pwa/isa_bus_conn				BLOCK SHT 1 OF 1	
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE C. SCHWARZ CHECK APPR OTHER	DATE 11/05/94 DATE DATE DATE
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC-EDM_SERIAL_PWA FIRST MADE FOR ADVANTX II DRAWING NO. 2113448SCH / REV 0 / SIZE B / SHT/CONT. ON 9 / -

SECTION 6
SKL A1 A3, 2196392 (CPU BOARD)

No Schematic Available

SECTION 7
SKL A1 A4, 2142602 (CONTROL PANEL BOARD)



SHT. 1 CONT. 2
2142602SCH

SHEET_NAME	SHT NUM	REV
ASC CONTROL PANEL	1	1
ASC CONTROL PANEL	2	1
ASC CONTROL PANEL	3	1

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2142602 B
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.25W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

REVISION	PCN NUMBER	DATE	SIGN OFF
0	------		
1	196374	5MAR96	

BLOCK PATHNAME $GEMS_XR_asc_control_ASM/asc_control

BLOCK SHT 1 OF 3

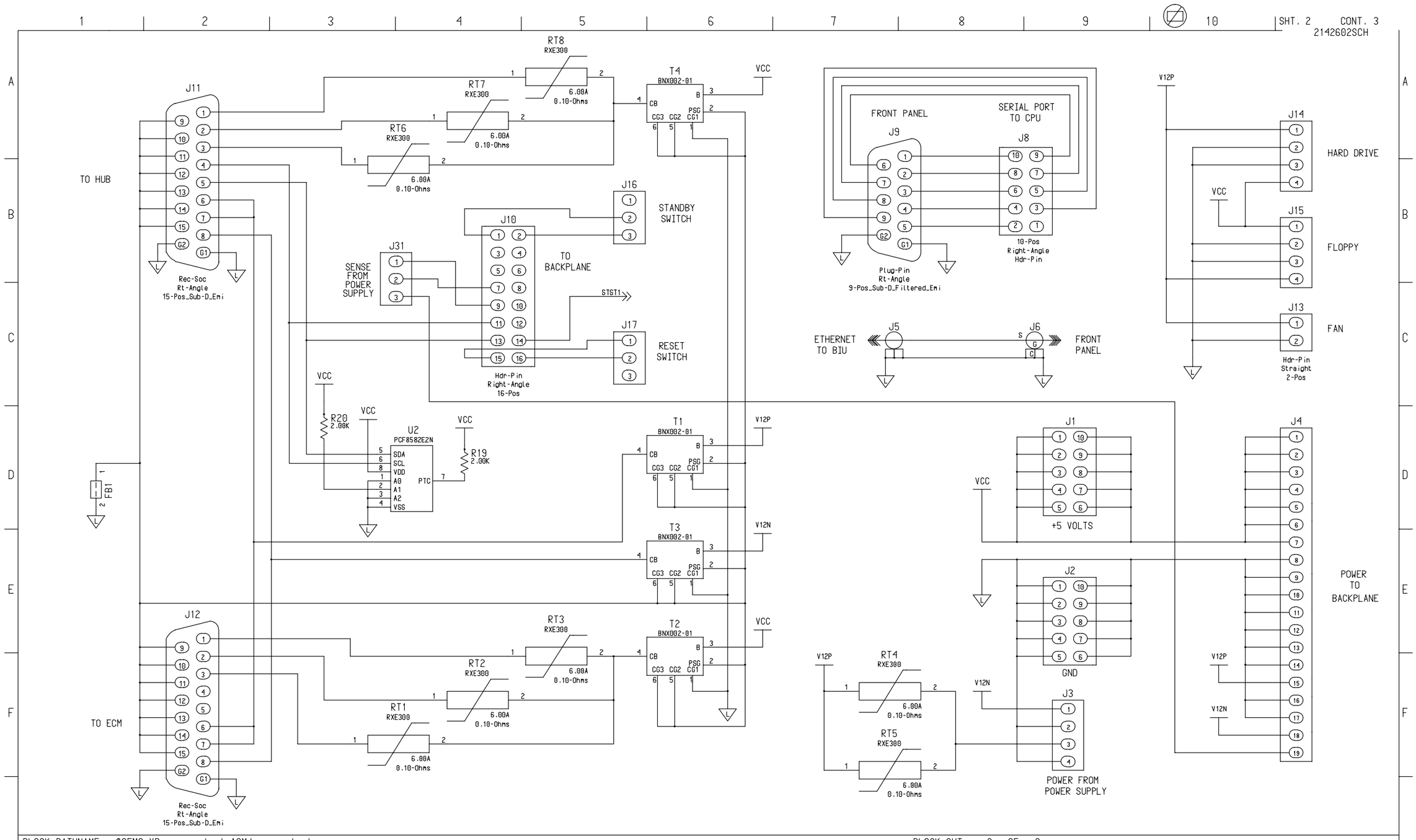
REV 1 PCN 196374 DESCRIPTION
MADE BY G. Teske DATE 5MAR96 APPR BY DATE

REV 2 PCN DESCRIPTION
MADE BY DATE APPR BY DATE

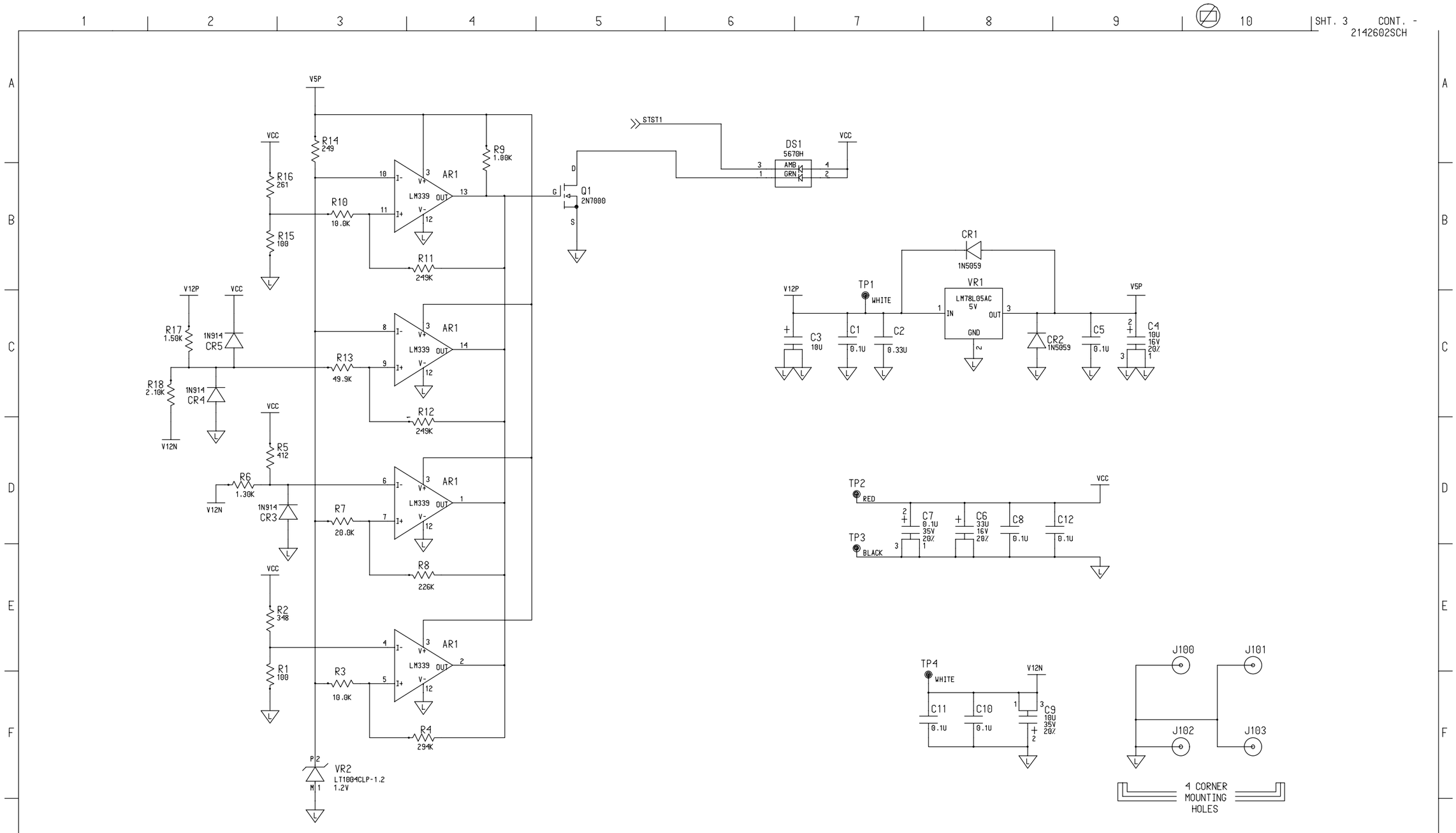
MADE BRUCE MARBLE DATE 05JUN95
CHECK JAMES WOODS DATE 14AUG95
APPR DATE
OTHER JEFFREY A. KAUTZER DATE 14AUG95

GE MEDICAL SYSTEMS
MILWAUKEE, WI USA

DESIGN TITLE ASC CONTROL PANEL
FIRST MADE FOR ADVANTX_II
DRAWING NO. 2142602SCH | REV 1 | SIZE B | SHT/CONT. ON 1 / 2



BLOCK PATHNAME $GEMS_XR_asc_control_ASM/asc_control				BLOCK SHT 2 OF 3	
REV 1 PCN 196374 DESCRIPTION	MADE BY	BRUCE MARBLE	DATE 05JUN95	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE ASC CONTROL PANEL FIRST MADE FOR ADVANTX_II
MADE BY G. Teske DATE 5MAR96 APPR BY DATE	CHECK	JIM WOODS	DATE 11AUG95		DRAWING NO. 2142602SCH / REV 1 / SIZE B / SHT/CONT. ON 2 / 3
REV 2 PCN DESCRIPTION	APPR	JEFF KAUTZER	DATE 11AUG95		
MADE BY DATE APPR BY DATE	OTHER	JEFFREY A. KAUTZER	DATE 14AUG95		

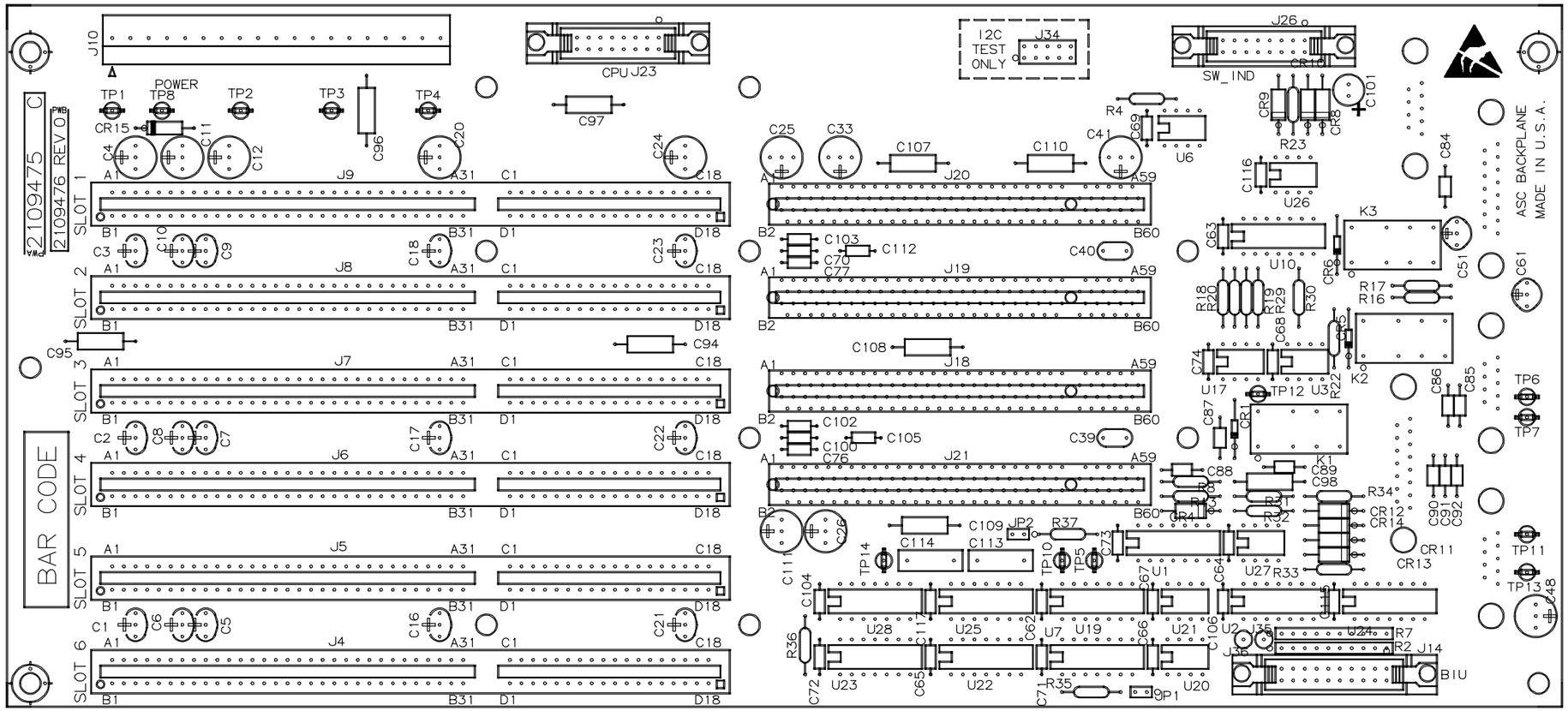


BLOCK PATHNAME $GEMS_XR_asc_control_ASM/asc_control				BLOCK SHT 3 OF 3	
REV 1 PCN 196374 DESCRIPTION MADE BY G. Teske DATE 5MAR96 APPR BY DATE	MADE BRUCE MARBLE DATE 05JUN95 CHECK JIM WOODS DATE 11AUG95 APPR JEFF KAUTZER DATE 11AUG95 OTHER JEFFREY A. KAUTZER DATE 14AUG95	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE FIRST MADE FOR ADVANTX_II		
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2142602SCH	REV 1	SIZE B	SHT/CONT. ON 3 / -

SECTION 8
SKL A1 A7, POWER SUPPLY ASSEMBLY

No Schematic Available.

SECTION 9
SKL A1 A20, 2109475 (ASC BACKPLANE)



SHT. 1 CONT. 2
2109475SCH

SHEET NAME	SHEET NO.	REV.
COVER_SHEET	1	0
BLOCK_DIAGRAM	2	0
DE-COUPLINGS	3	0
ISA_BUS_1	4	0
ISA_BUS_2	5	0
ISA_BUS_3	6	0
ISA_BUS_4	7	0
ISA_BUS_5	8	0
ISA_BUS_6	9	0
PCI_BUS_1	10	0
PCI_BUS_2	11	0
PCI_BUS_3	12	0
PCI_BUS_4	13	0
RELAY_LOGIC_1	14	0
RELAY_LOGIC_2	15	0
RELAY_LOGIC_3	16	0
CONNECTORS_1	17	0
CONNECTORS_2	18	0
SPARES	19	0

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2109475 C
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED, ALL RESISTORS ARE 0.25W, 1%, AND ARE IN OHMS, ALL
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME.

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	14/MAR/94	JWW
B	------	06/JUL/94	JWW
0	------	20/OCT/94	.

BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane

BLOCK SHT 1 OF 4

REV 1 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	MADE Park_C	DATE 14/03/94
REV 2 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	CHECK	DATE
		APPR	DATE
		OTHER	DATE

GE MEDICAL SYSTEMS
Milwaukee, WI USA

DESIGN TITLE ASC_BACKPLANE
FIRST MADE FOR Advantx II

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2109475SCH	0	B	1/2

1 2 3 4 5 6 7 8 9 10

SHT. 2 CONT. 3
2109475SCH

A B C D E F H

SA(19:0)
LA(6:0)
DRQ(6:0)
SD(15:0)
DACK(6:0)
CTRL(16:0)
OSC
CLK
IRQ(10:0)
ISA_RESET

ISA BUS 6
ISA BUS 5
ISA BUS 4
ISA BUS 3
ISA BUS 2
ISA BUS 1

CLK
ISA_RESET
PB_RESET*
ASC_OPP_PL(6:0)
BIU(13:0)
ECM(1:0)
CPU_RESET*

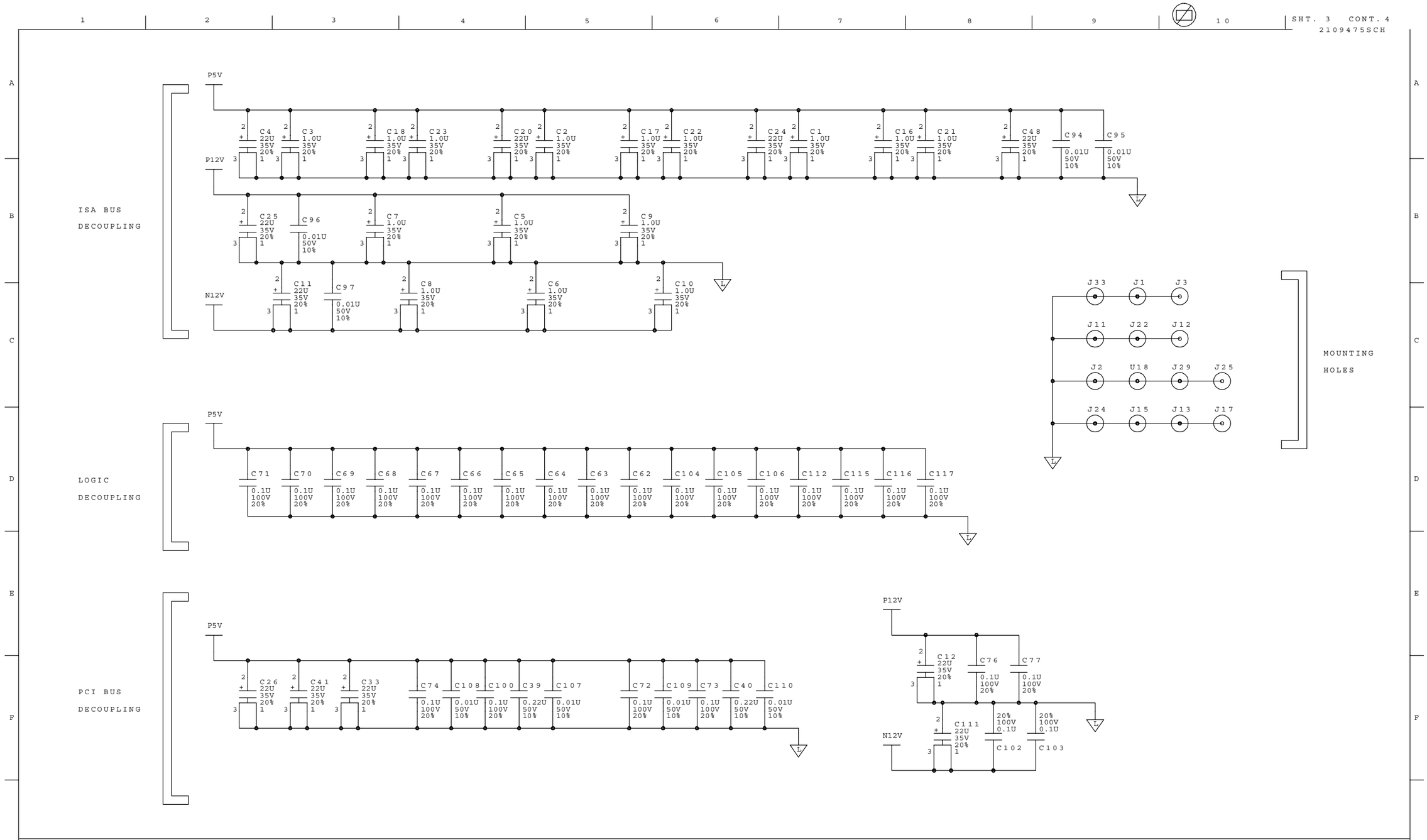
RELAY LOGIC

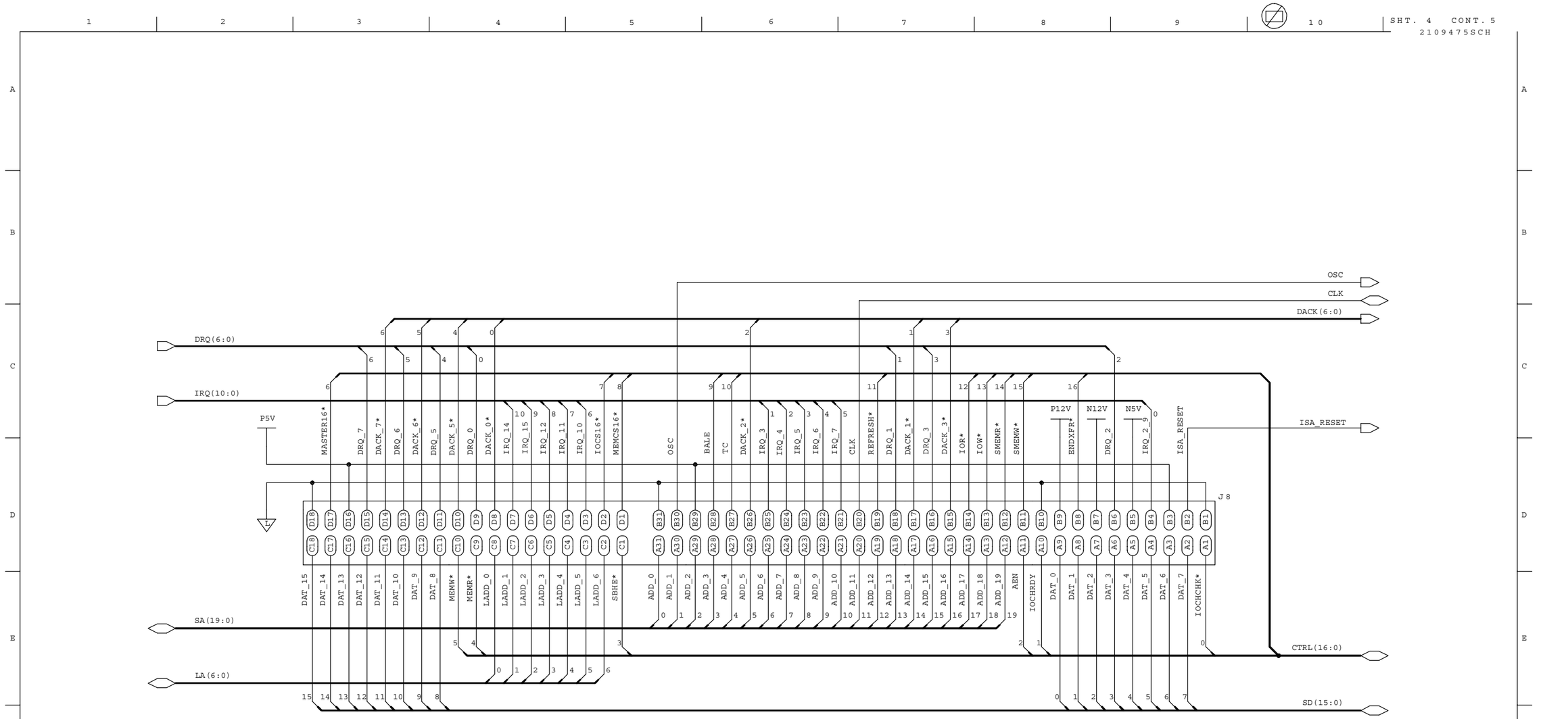
CONNECTORS

PCI_AD(31:0)
PCI_CUST(11:0)
PCI_CTRL(22:0)

PCI BUS 4
PCI BUS 3
PCI BUS 2
PCI BUS 1

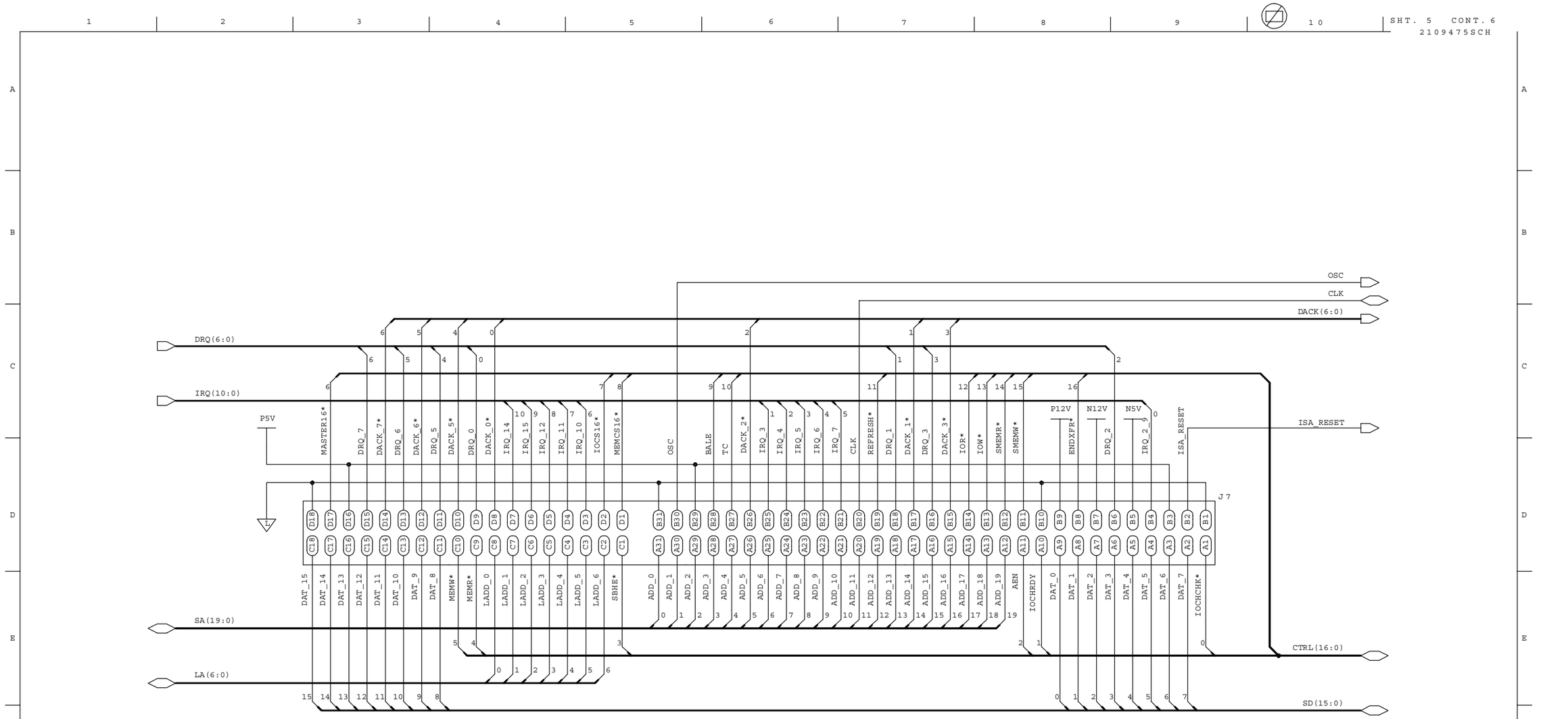
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane			BLOCK SHT 2 OF 4
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 2/3


SHT. 3 CONT. 4
2109475SCH
ISA BUS
DECOUPLING
P5V
P12V
N12V
C4 22U 35V 20% 1
C3 1.0U 35V 20% 1
C18 1.0U 35V 20% 1
C23 1.0U 35V 20% 1
C20 22U 35V 20% 1
C2 1.0U 35V 20% 1
C17 1.0U 35V 20% 1
C22 1.0U 35V 20% 1
C24 22U 35V 20% 1
C1 1.0U 35V 20% 1
C16 1.0U 35V 20% 1
C21 1.0U 35V 20% 1
C48 22U 35V 20% 1
C94 0.01U 50V 10%
C95 0.01U 50V 10%
C25 22U 35V 20% 1
C96 0.01U 50V 10%
C7 1.0U 35V 20% 1
C5 1.0U 35V 20% 1
C9 1.0U 35V 20% 1
C11 22U 35V 20% 1
C97 0.01U 50V 10%
C8 1.0U 35V 20% 1
C6 1.0U 35V 20% 1
C10 1.0U 35V 20% 1
J33 J1 J3
J11 J22 J12
J2 U18 J29 J25
J24 J15 J13 J17
MOUNTING
HOLES
LOGIC
DECOUPLING
C71 C70 C69 C68 C67 C66 C65 C64 C63 C62 C104 C105 C106 C112 C115 C116 C117
0.1U 100V 20%
PCI BUS
DECOUPLING
C26 22U 35V 20% 1
C41 22U 35V 20% 1
C33 22U 35V 20% 1
C74 C108 C100 C39 C107 C72 C109 C73 C40 C110
0.1U 100V 20%
0.01U 50V 10%
0.22U 50V 10%
C12 22U 35V 20% 1
C76 C77
C111 22U 35V 20% 1
20% 100V 0.1U
C102 C103
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane
BLOCK SHT 3 OF 4
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE Park_C
DATE 14/03/94
CHECK
DATE
APPR
DATE
OTHER
DATE
GE MEDICAL SYSTEMS
Milwaukee, WI USA
DESIGN TITLE ASC_BACKPLANE
FIRST MADE FOR Advantx II
DRAWING NO. 2109475SCH
REV 0
SIZE B
SHT./CONT. ON 3/4

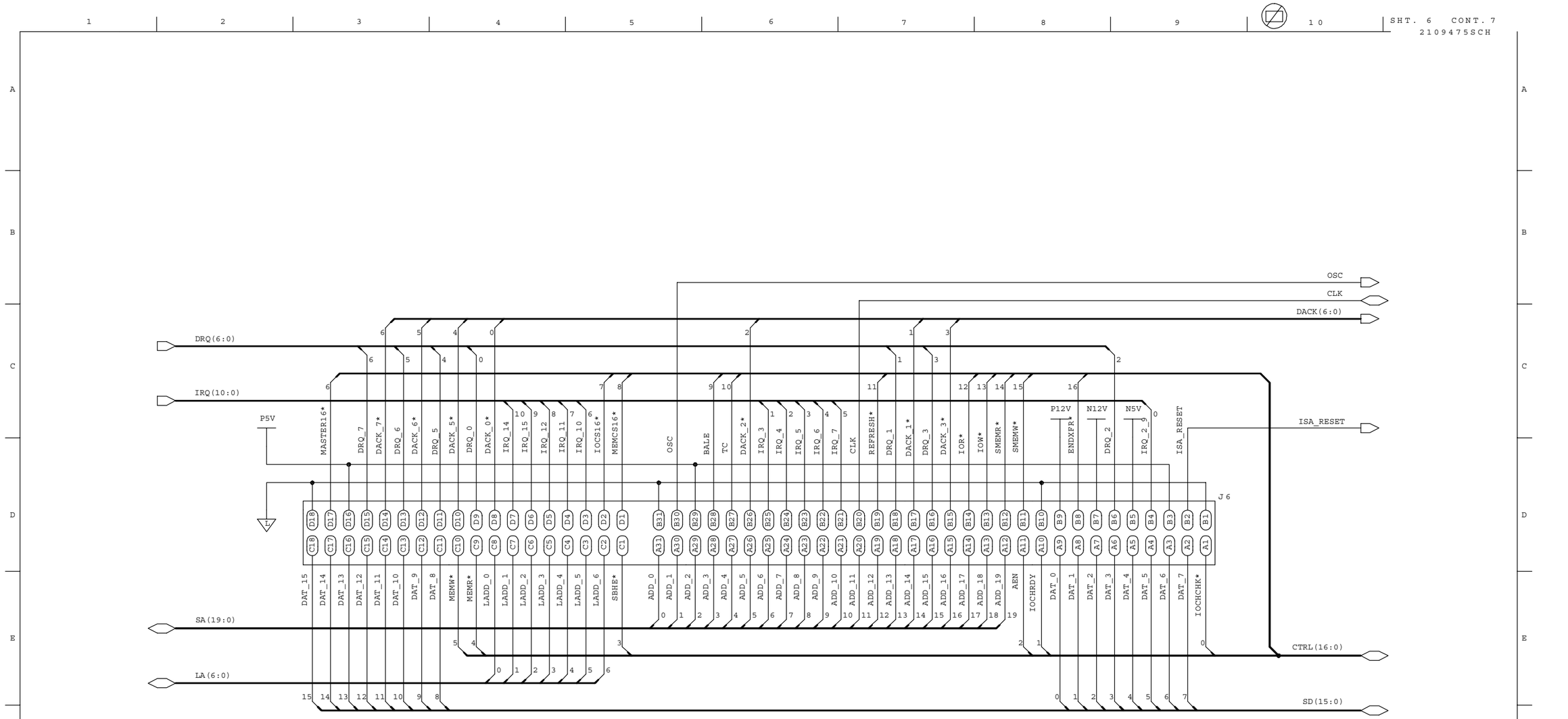


ISA SLOT 1

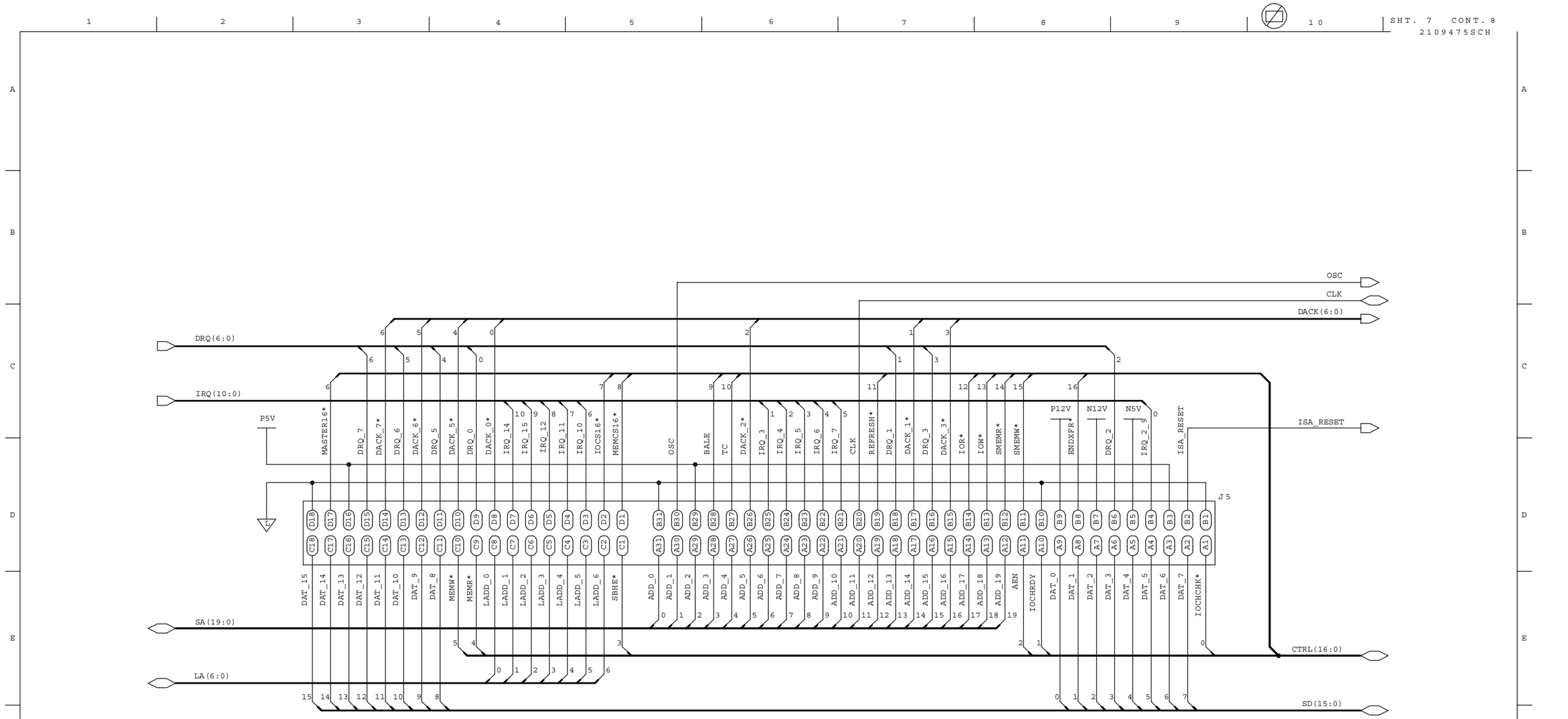
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_1			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 4/5



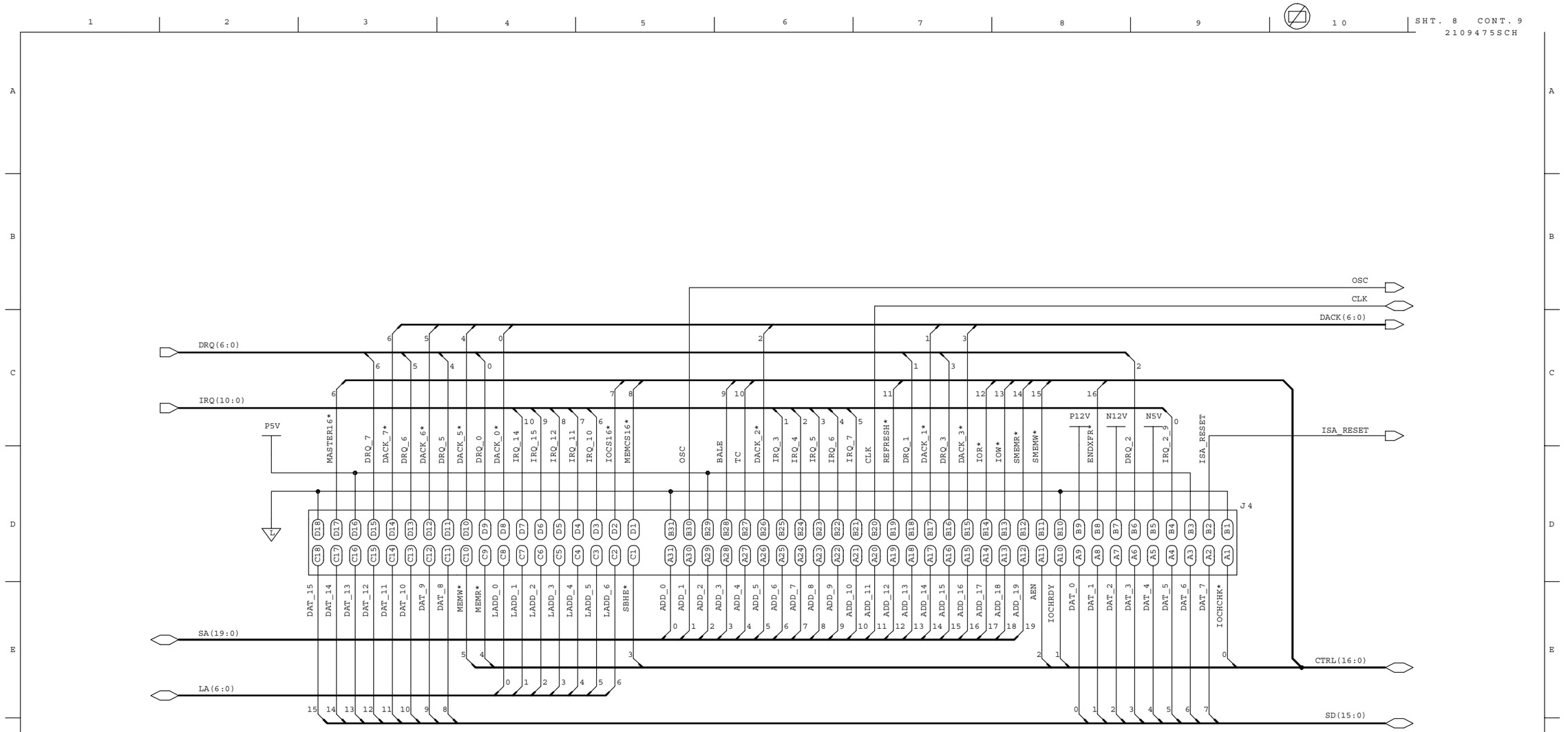
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_2			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 5/6



BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_3			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE	APPR DATE OTHER DATE		DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 6/7



BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_4			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 7/8



ISA SLOT 5

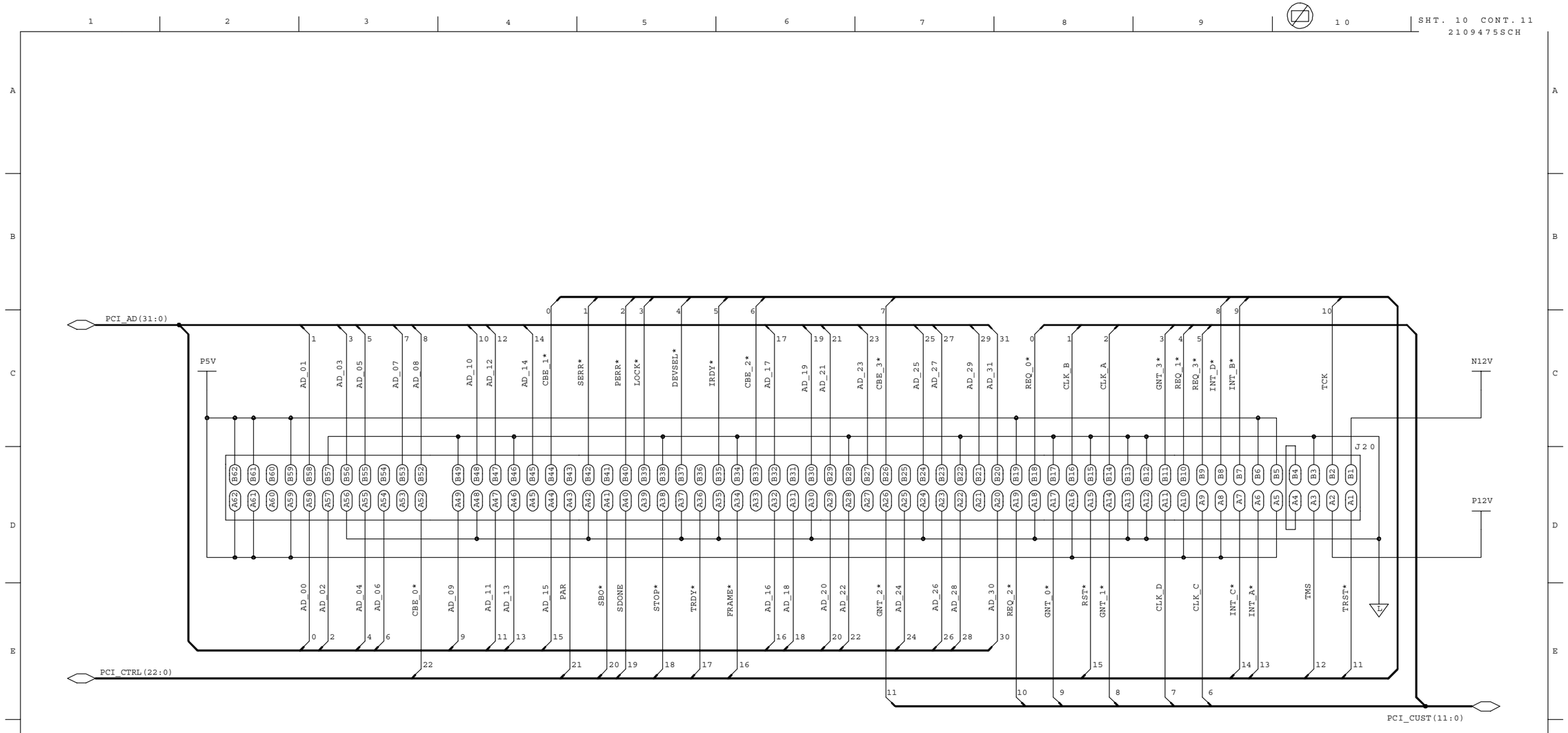
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_5			BLOCK SHT 1 OF 1
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 8/9

SHT. 9 CONT. 10
2109475SCH

OSC
CLK
DACK(6:0)
DRQ(6:0)
IRQ(10:0)
P5V
ISA_RESET
P12V
N12V
N5V
J9
SA(19:0)
LA(6:0)
CTRL(16:0)
SD(15:0)

ISA SLOT 6

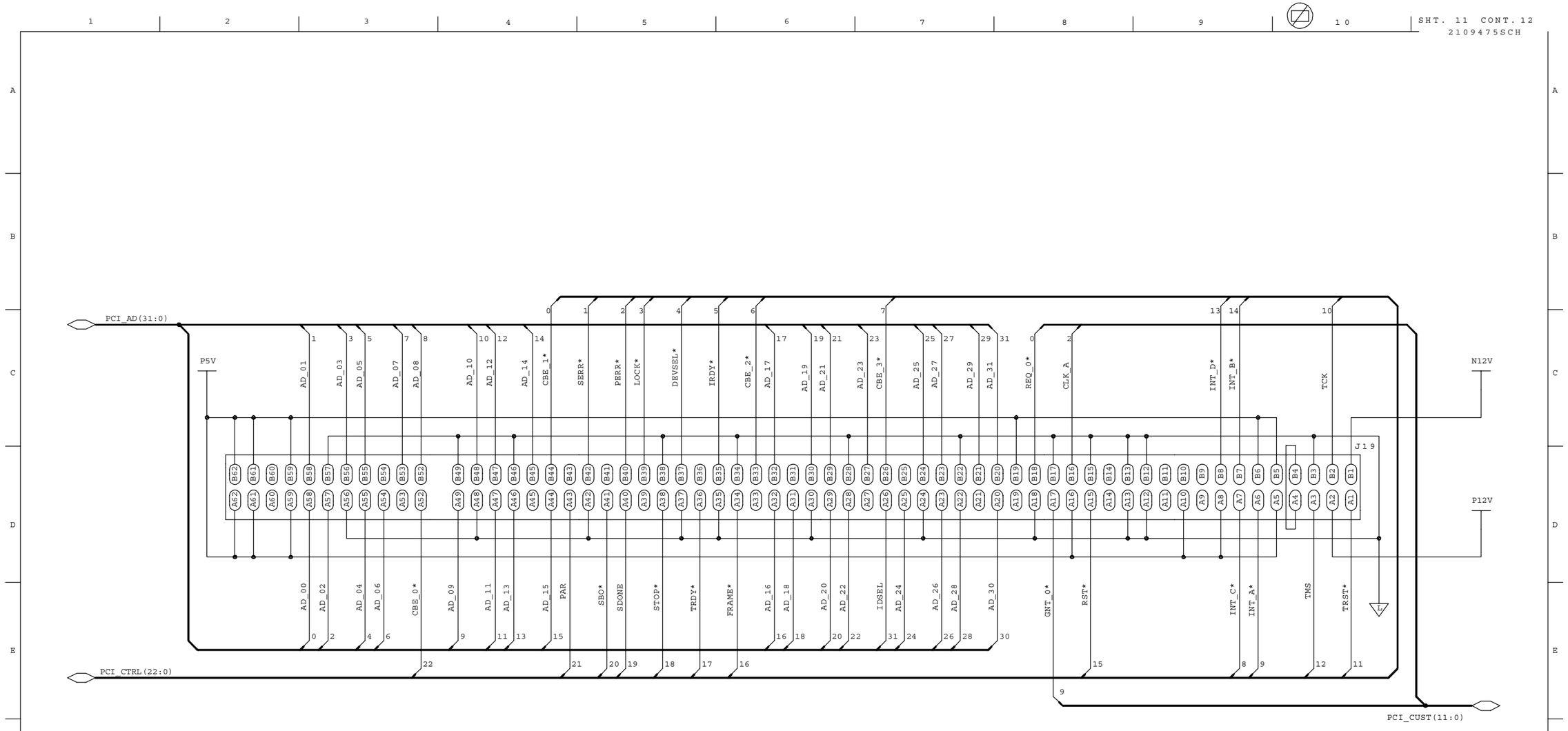
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/isa_6			BLOCK SHT 1 OF 1
REV 1 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2109475SCH · REV 0 · SIZE B · SHT./CONT. ON 9/10



PCI SLOT 1

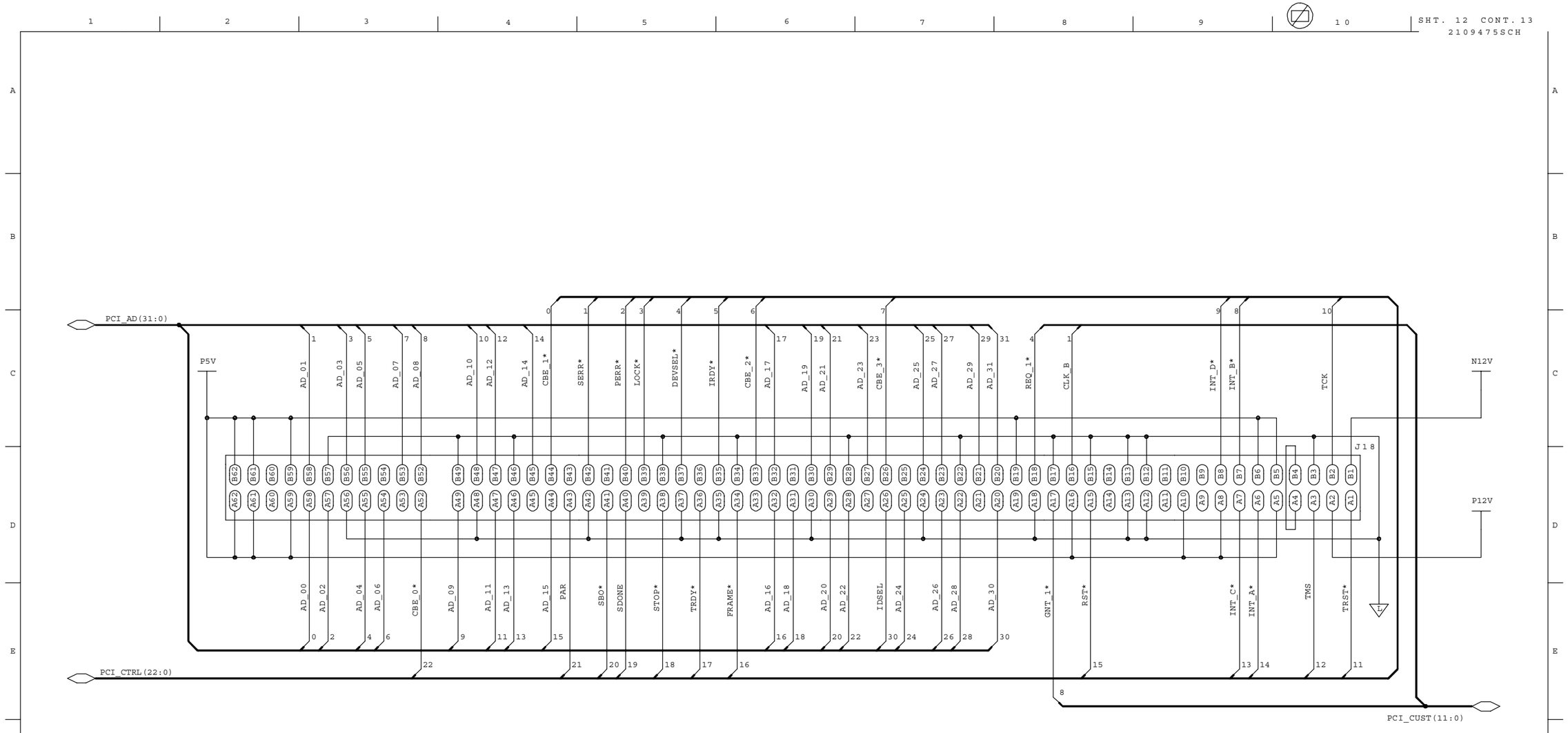
(MASTER / CPU)

BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/pci_1			BLOCK SHT 1 OF 1		
REV 1 PCN MADE BY	DESCRIPTION DATE APPR BY DATE	MADE Park_C CHECK APPR OTHER	DATE 14/03/94 DATE DATE DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN MADE BY	DESCRIPTION DATE APPR BY DATE				DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 10/11



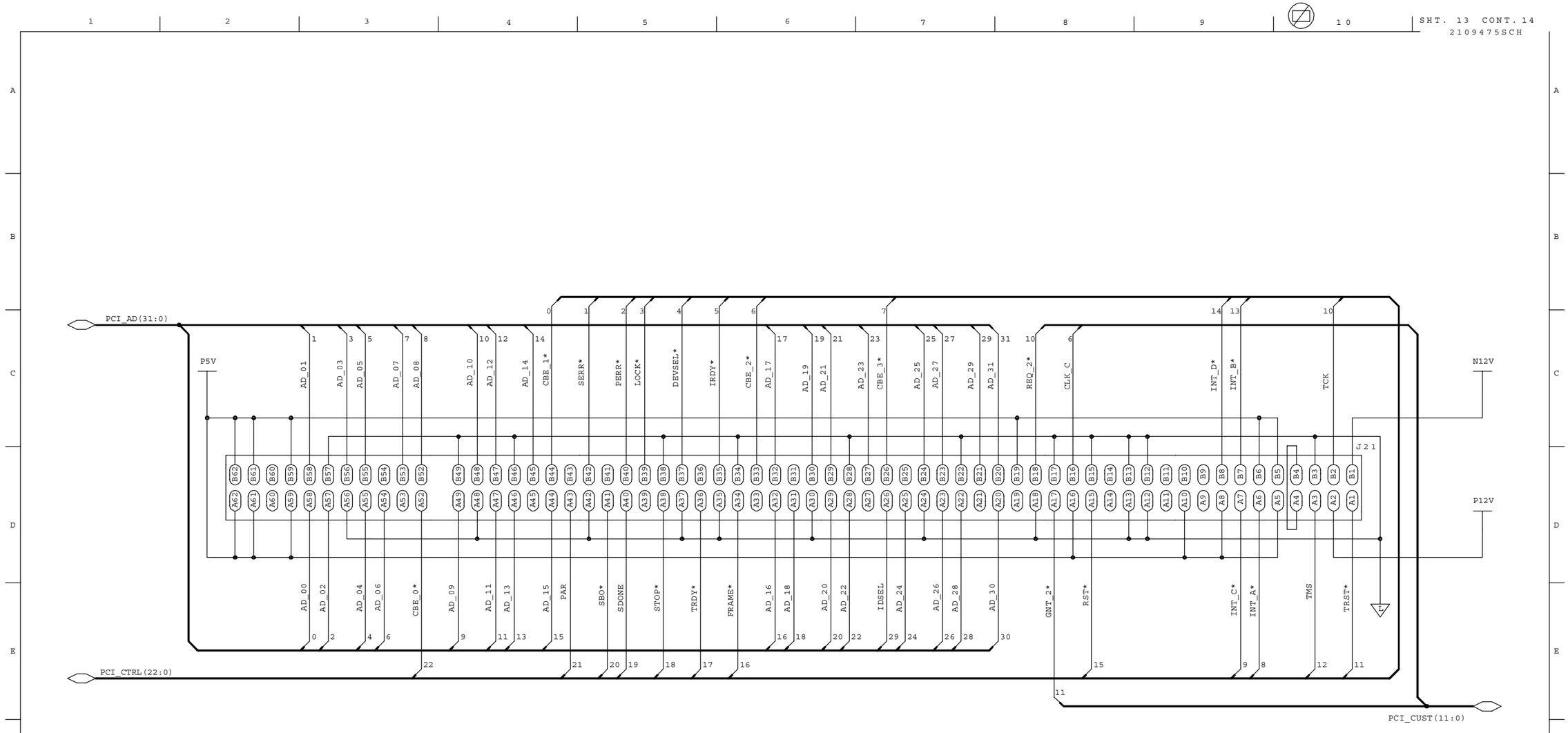
PCI SLOT 2

BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/pci_2			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE Park_C / CHECK / APPR / OTHER — DATE 14/03/94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE; FIRST MADE FOR Advantx II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2109475SCH; REV 0; SIZE B; SHT./CONT. ON 11/12

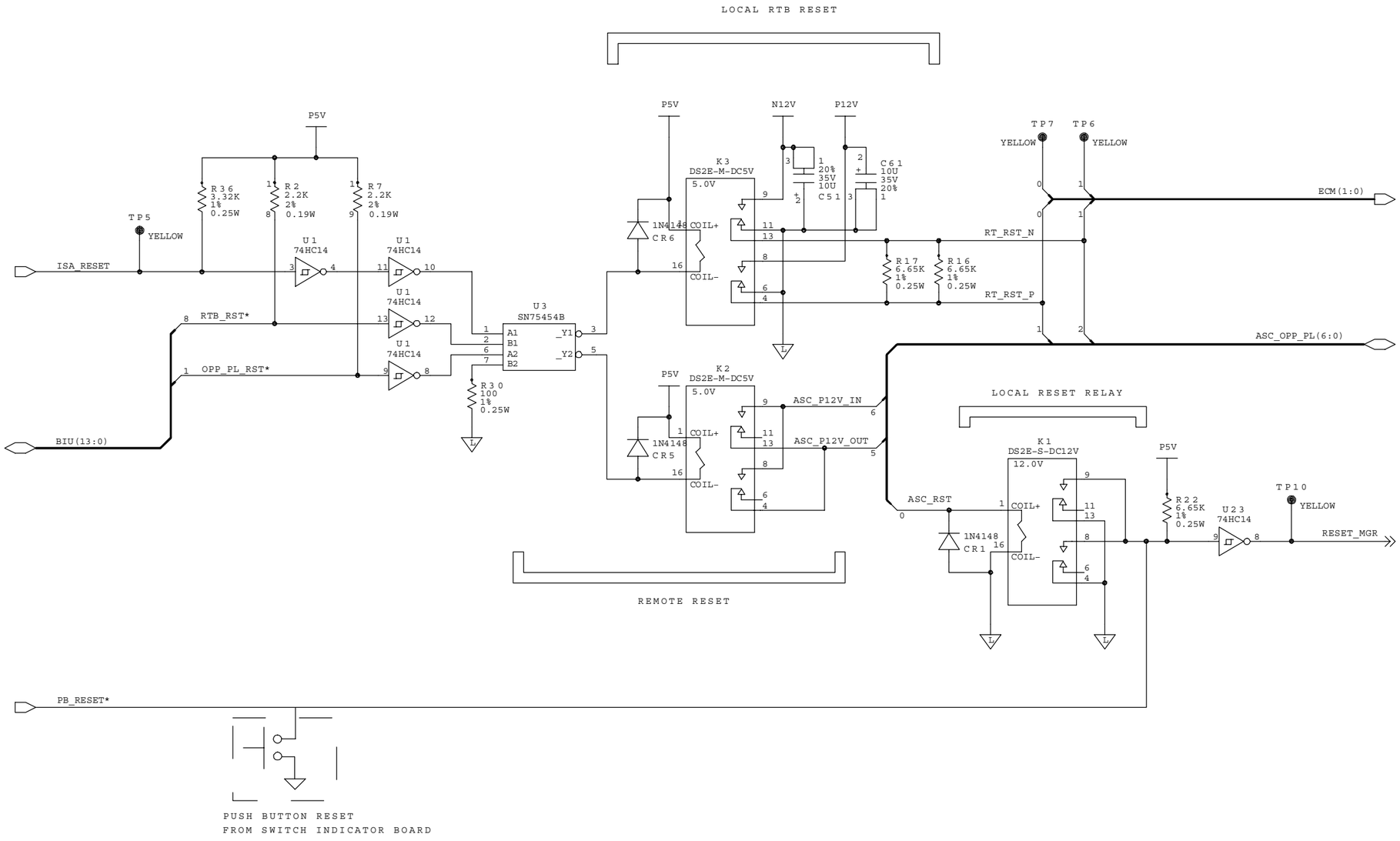


PCI SLOT 3

BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/pci_3			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE Park_C / CHECK / APPR / OTHER	DATE 14/03/94 / DATE / DATE / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE				DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 12/13

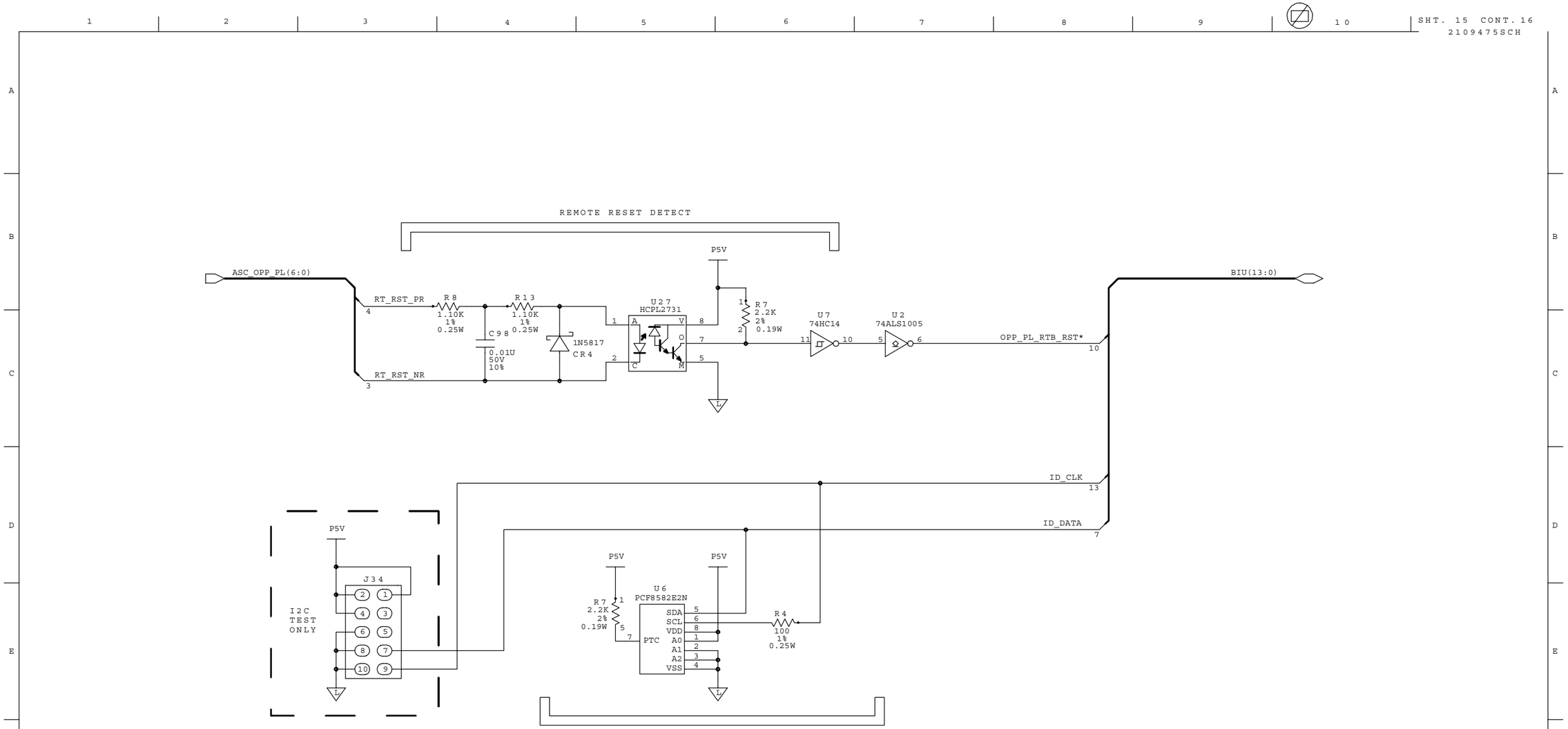


BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/pci_4			BLOCK SHT 1 OF 1		
REV 1 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	MADE Park_C / CHECK / APPR / OTHER	DATE 14/03/94 / DATE / DATE / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE				DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 13/14

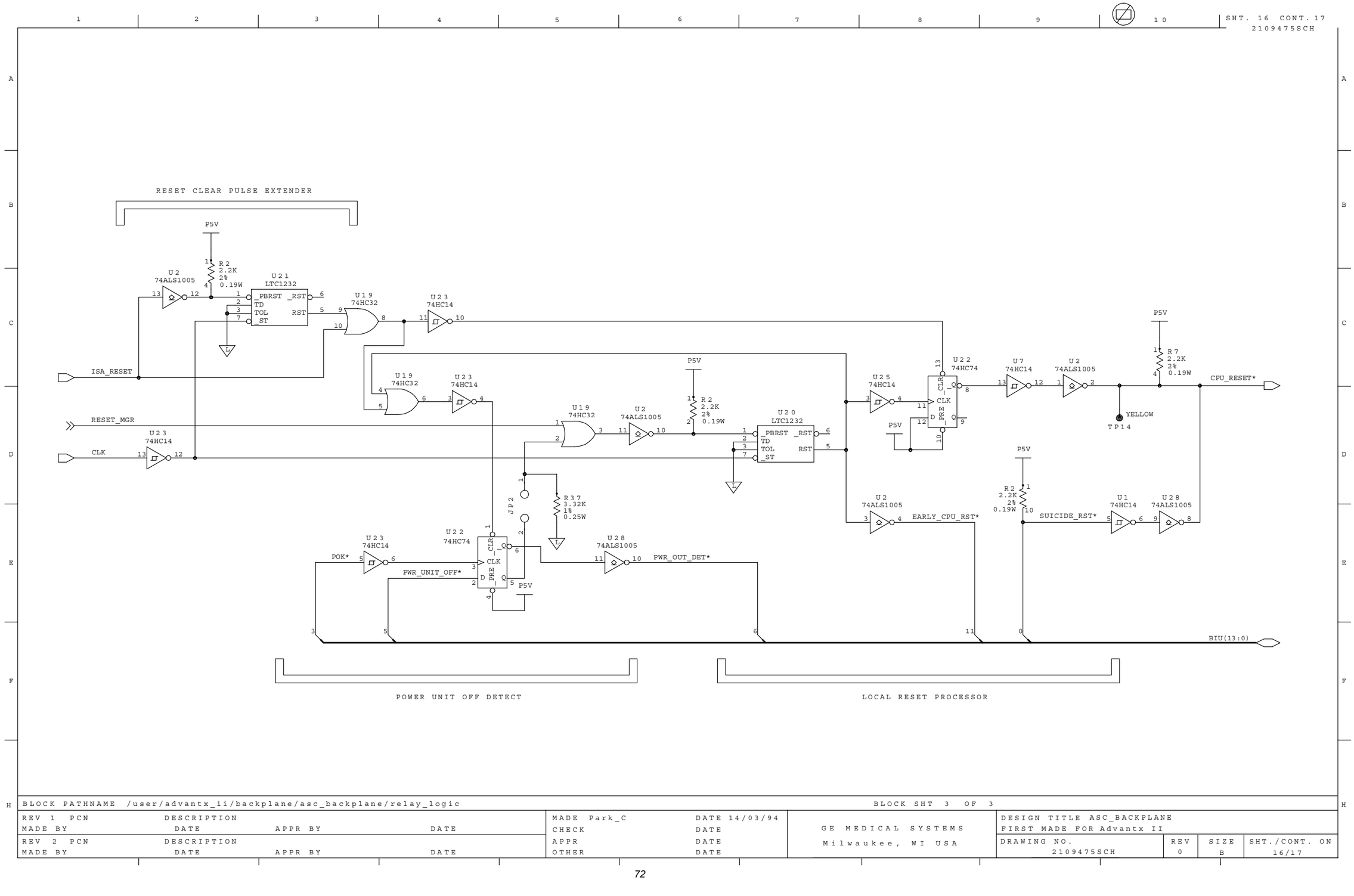


BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/relay_logic			BLOCK SHT 1 OF 3
REV 1 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE	MADE Park_C / DATE 14/03/94 CHECK / DATE APPR / DATE OTHER / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 14/15

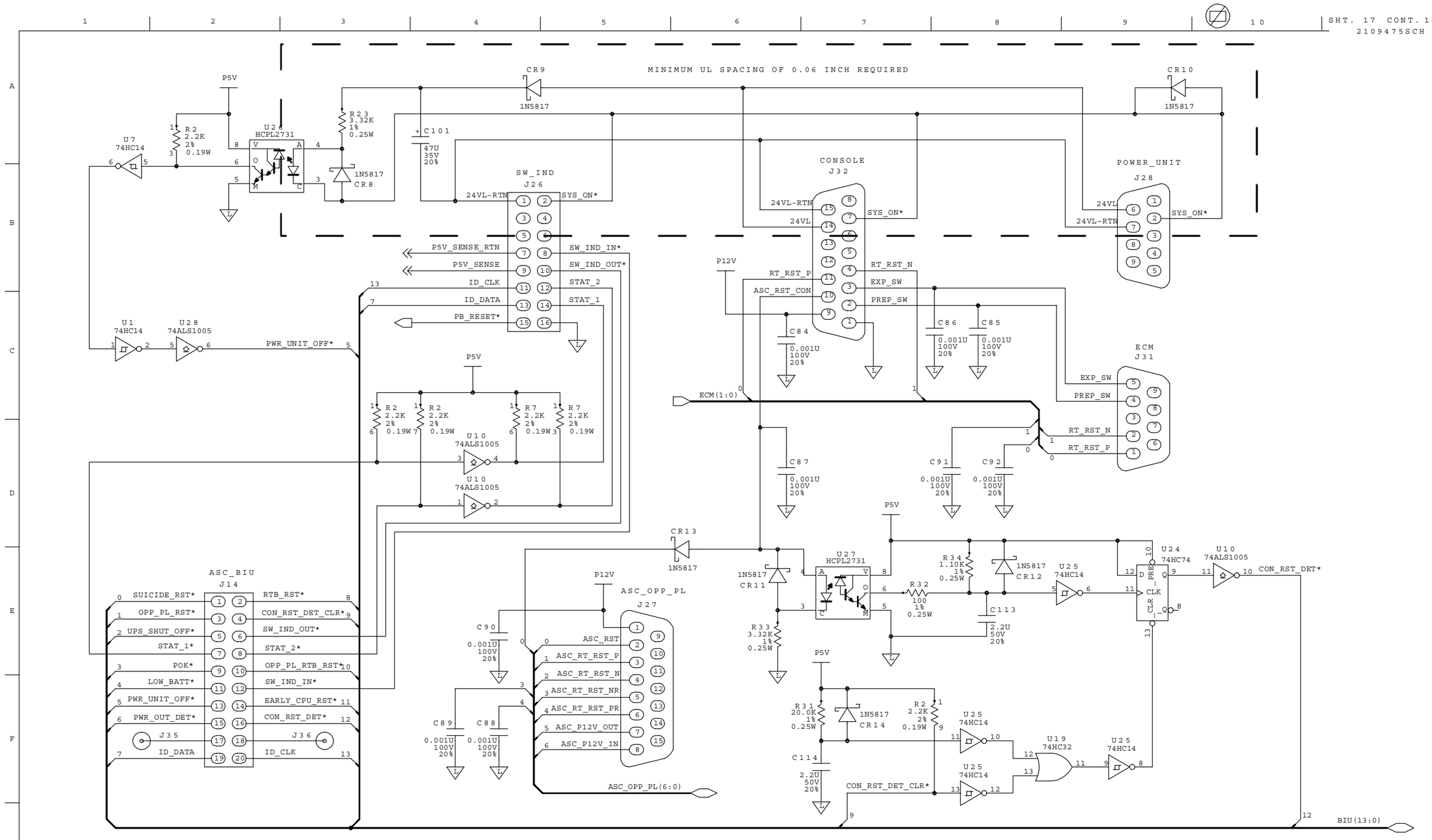
SHT. 15 CONT. 16
2109475SCH



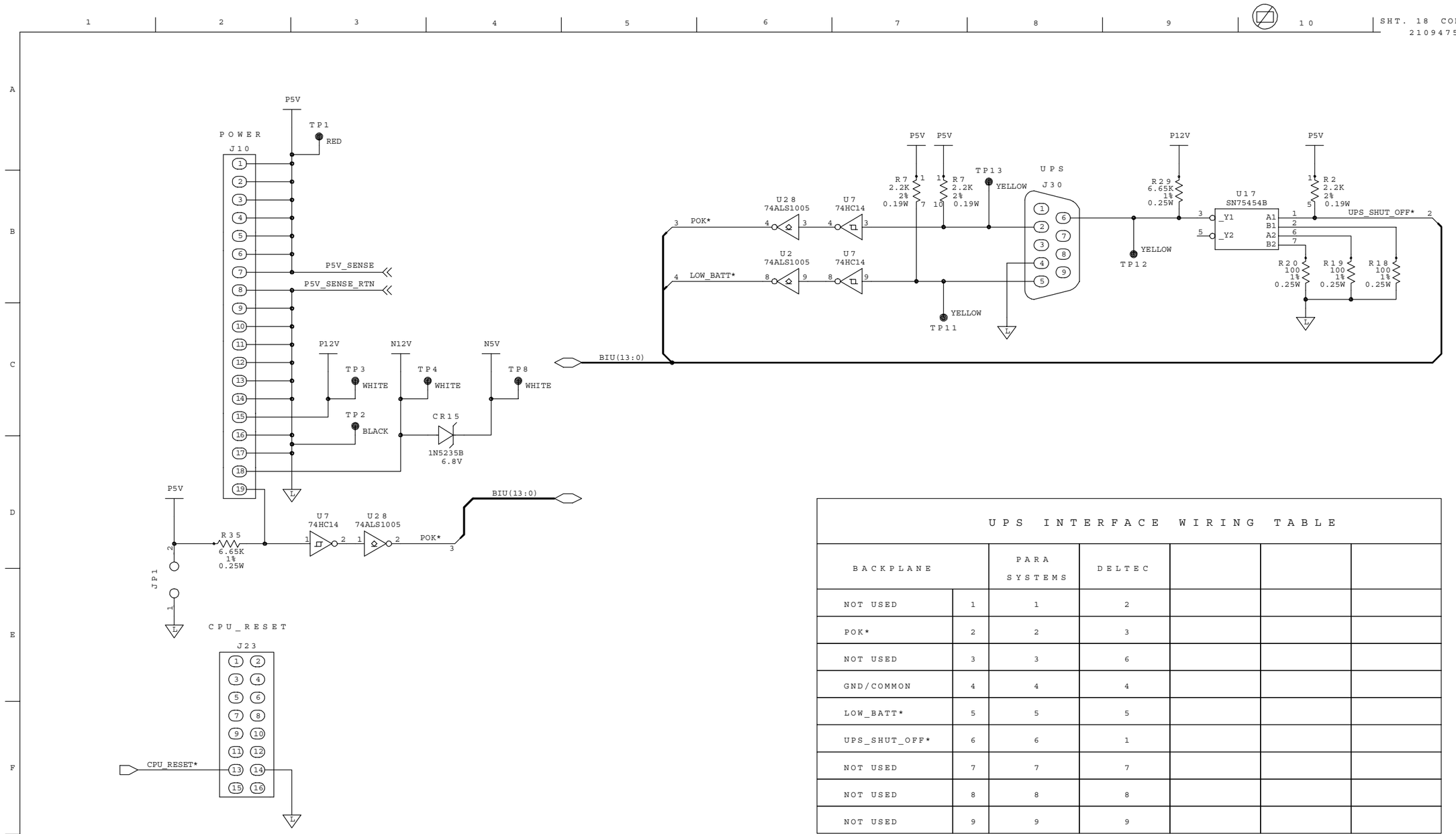
BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/relay_logic			BLOCK SHT 2 OF 3
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 15/16



BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/relay_logic			BLOCK SHT 3 OF 3
REV 1 PCN — DESCRIPTION MADE BY — DATE — APPR BY — DATE	MADE Park_C — DATE 14/03/94 CHECK — DATE APPR — DATE OTHER — DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
REV 2 PCN — DESCRIPTION MADE BY — DATE — APPR BY — DATE			DRAWING NO. 2109475SCH — REV 0 — SIZE B — SHT./CONT. ON 16/17



BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/connectors				BLOCK SHT 1 OF 2	
REV 1 PCN / DESCRIPTION		MADE Park_C	DATE 14/03/94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
MADE BY / DATE / APPR BY / DATE		CHECK	DATE		
REV 2 PCN / DESCRIPTION		APPR	DATE		DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 17/18
MADE BY / DATE / APPR BY / DATE		OTHER	DATE		



UPS INTERFACE WIRING TABLE						
BACKPLANE		PARA SYSTEMS	DELTEC			
NOT USED	1	1	2			
POK*	2	2	3			
NOT USED	3	3	6			
GND/COMMON	4	4	4			
LOW_BATT*	5	5	5			
UPS_SHUT_OFF*	6	6	1			
NOT USED	7	7	7			
NOT USED	8	8	8			
NOT USED	9	9	9			

BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane/connectors
BLOCK SHT 2 OF 2

REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE Park_C DATE 14/03/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 18/19
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			

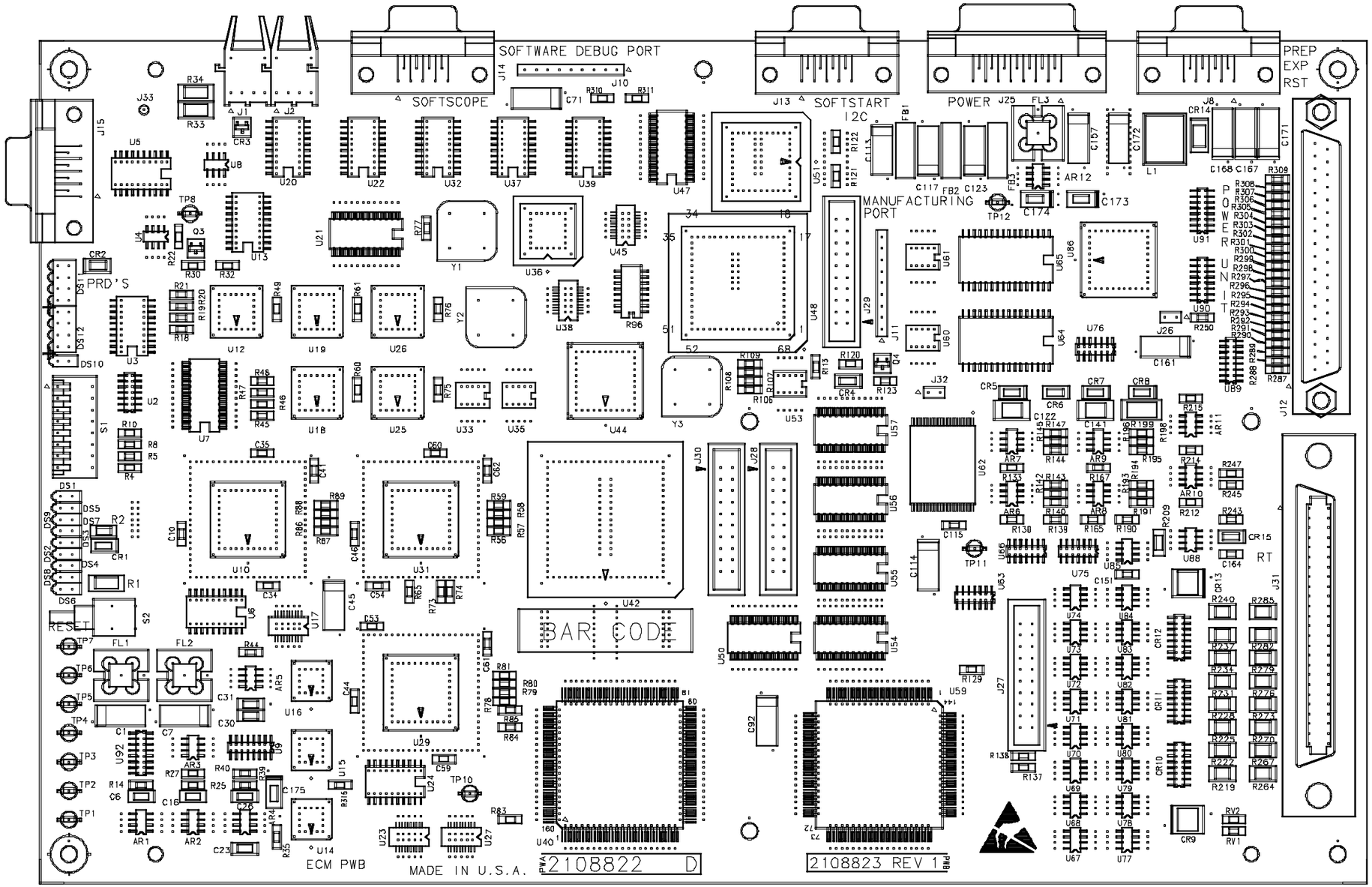
SHT. 19 CONT. - 2109475SCH



BLOCK PATHNAME /user/advantx_ii/backplane/asc_backplane				BLOCK SHT 4 OF 4	
REV 1 PCN	DESCRIPTION	MADE Park_C	DATE 14/03/94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ASC_BACKPLANE FIRST MADE FOR Advantx II
MADE BY	DATE APPR BY DATE	CHECK	DATE		
REV 2 PCN	DESCRIPTION	APPR	DATE		DRAWING NO. 2109475SCH / REV 0 / SIZE B / SHT./CONT. ON 19/-
MADE BY	DATE APPR BY DATE	OTHER	DATE		

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SECTION 10
SKL A2, 2108822 (ECM)



SHT. 1 CONT. 2
2108822SCH

SHEET_NAME	SHT NUM	REV
ECM_PWB	2	0
CONNECTOR_BLK	3	0
PR_BUS_PROTECTION	4	0
RT_BUS_PROTECTION	5	0
RT_TERMINATION	6	1
SERIES_RES	7	0
CPU	8	0
80C186_87_BLK	9	1
ADDRESS_LATCH	10	0
TRANSCEIVER	11	0
MEMORY_BLK	12	0
INPUT_OUTPUT_BLK	13	0
INPUT_OUTPUT_BLK	14	0
INPUT_OUTPUT_BLK	15	0
CONTROL_BLK	16	0
CONTROL_BLK	17	1
INTERRUPT_BLK	18	0
BIU	19	0
ETL	20	0
PREP_EXPOSE_SW_RCVRS	21	0
PWR_SUPPLY_DIAGNOSTIC	22	0
ETL_FPGA_FUNCTIONS	23	0
SYSTEM_TIMERS	24	0
SYSTEM_TIMERS	25	0
AEC_REFERENCE_UPDATE	26	0
ABC_AEC_CONTROL	27	0
POWER_UNIT_IF	28	0
PWR_CAPS_UNUSED_DEVICES	29	0
PWR_CAPS_UNUSED_DEVICES	30	1

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	DA/MTH/YR	INIT
B		24AUG94	GA
0		5-DEC-94	JWW
1	180519	25JAN95	GAA

NOTE:

VERIFY THIS PRINT IS THE LATEST REVISION USING GE PRODUCT STRUCTURE SYSTEM (PSS).

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2108822 D
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.1W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

BLOCK PATHNAME /user/xr_pwa/ecm_asm/ecm_pwb/cover_sheet

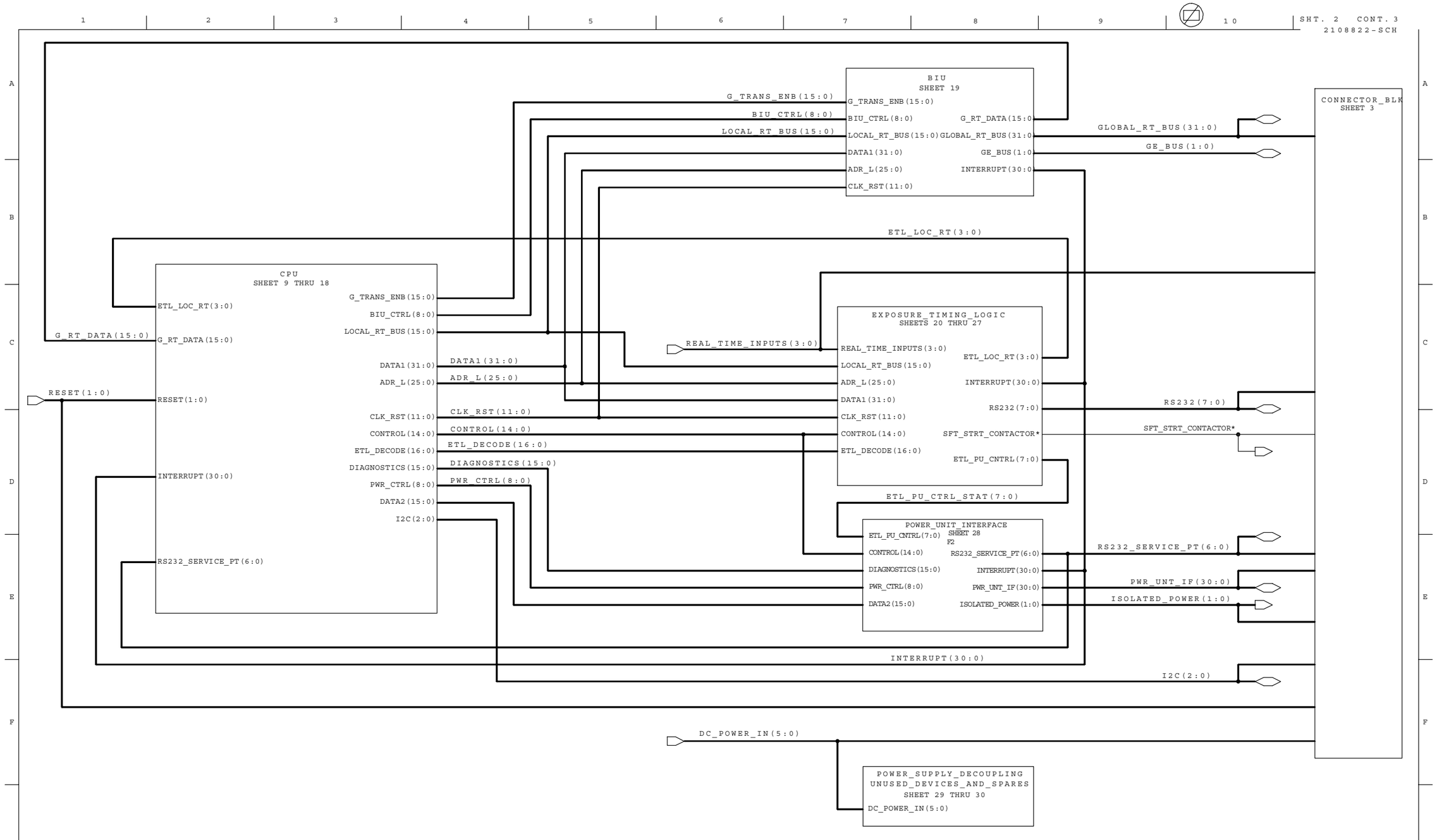
BLOCK SHT 1 OF 1

REV 1 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	MADE J. Dwyer	DATE 5-DEC-94
REV 2 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	CHECK / APPR / OTHER	DATE / DATE / DATE

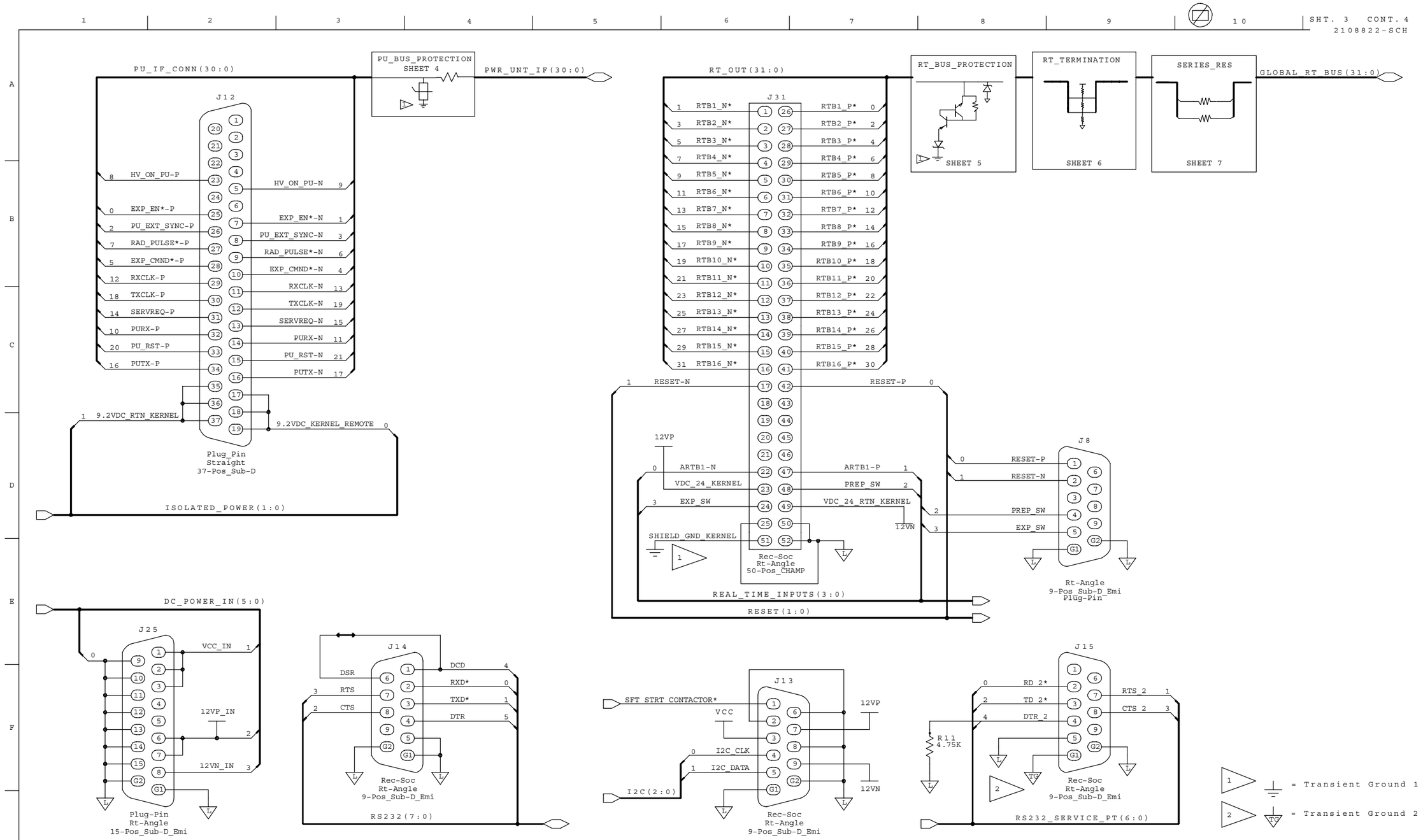
GE MEDICAL SYSTEMS
Milwaukee, WI USA

DESIGN TITLE ECM_PWB
FIRST MADE FOR ADVANTX_II

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2108822SCH	1	B	1/2



BLOCK PATHNAME /user/advantx_ii/ecm_ASM.cab/ecm_pwb				BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE J. Dwyer DATE 94-APR-10 CHECK DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II		
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE	APPR DATE OTHER DATE		DRAWING NO. 2108822-SCH	REV 0	SIZE B	SHT./CONT. ON 2/3



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/connector_blk					BLOCK SHT 1 OF 1		
REV 1 PCN	DESCRIPTION			MADE J.Dwyer	DATE 94-APR-10	GE MEDICAL SYSTEMS	DESIGN TITLE ECM_PWB
MADE BY	DATE	APPR BY	DATE	CHECK	DATE		FIRST MADE FOR ADVANTX_II
REV 2 PCN	DESCRIPTION			APPR	DATE	Milwaukee, WI USA	DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 3/4
MADE BY	DATE	APPR BY	DATE	OTHER	DATE		

SHT. 4 CONT. 5
2108822-SCH

PU_IF_CONN(30:0)

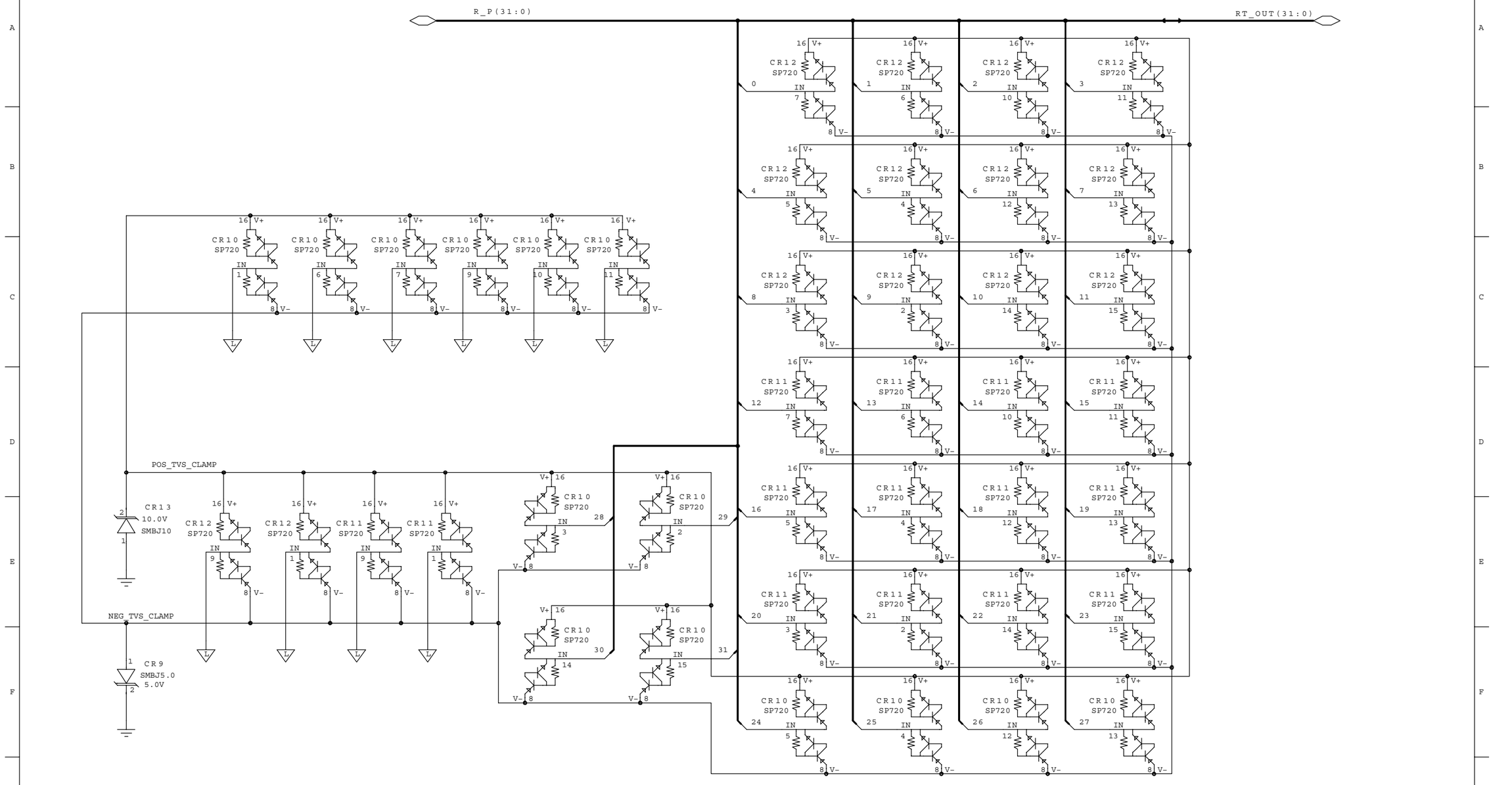
PWR_UNT_IF(30:0)

R289 33.2	R290 33.2	R291 33.2	R293 33.2	R296 33.2	R294 33.2	R295 33.2	R292 33.2	R287 33.2	R288 33.2	R303 33.2	R304 33.2	R297 33.2	R298 33.2	R301 33.2	R302 33.2	R307 33.2	R308 33.2	R299 33.2	R300 33.2	R305 33.2	R306 33.2
RV5 VC080505C150	RV6 VC080505C150	RV7 VC080505C150	RV9 VC080505C150	RV12 VC080505C150	RV10 VC080505C150	RV11 VC080505C150	RV8 VC080505C150	RV3 VC080505C150	RV4 VC080505C150	RV19 VC080505C150	RV20 VC080505C150	RV13 VC080505C150	RV14 VC080505C150	RV17 VC080505C150	RV18 VC080505C150	RV23 VC080505C150	RV24 VC080505C150	RV15 VC080505C150	RV16 VC080505C150	RV21 VC080505C150	RV22 VC080505C150

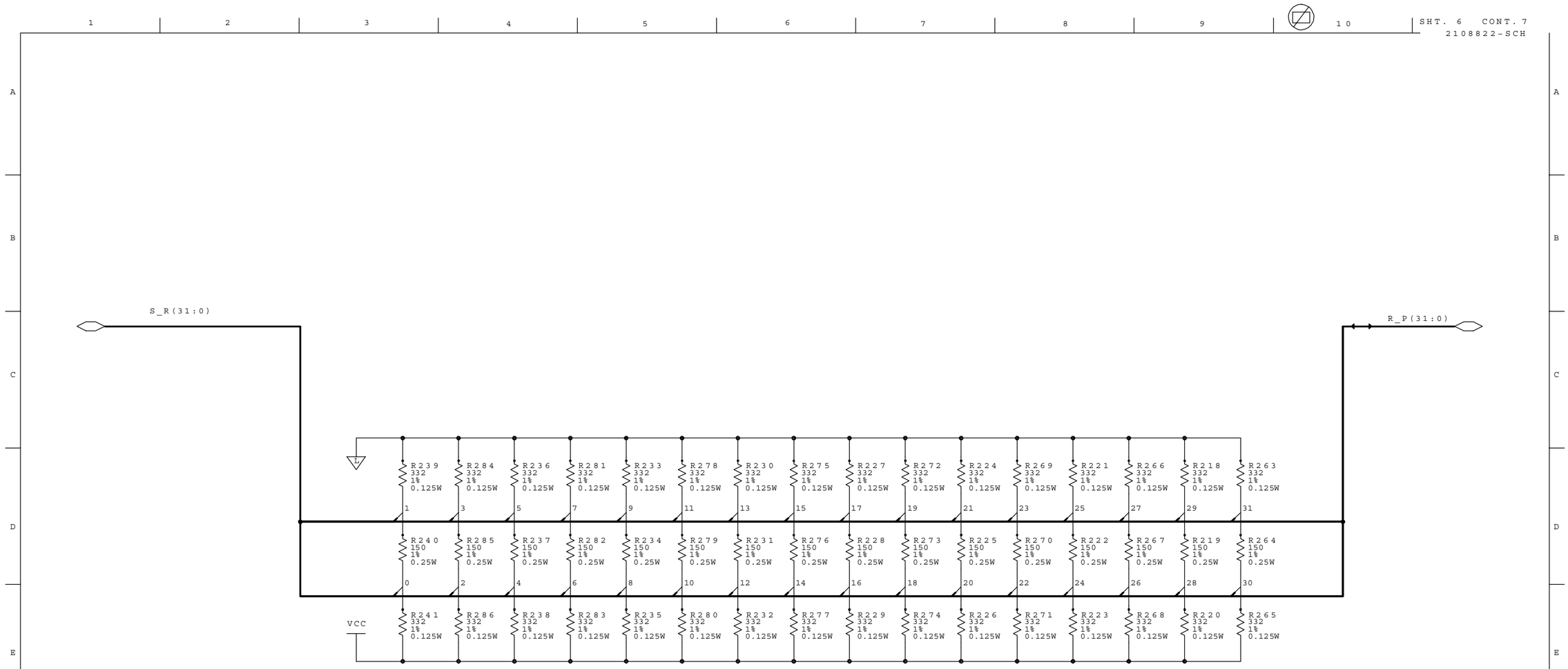
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/connector_blk/pu_bus_protection					BLOCK SHT 1 OF 1				
REV 1 PCN	DESCRIPTION			MADE F.Boehm	DATE 94-APR-10	GE MEDICAL SYSTEMS	DESIGN TITLE ECM_PWB		
MADE BY	DATE	APPR BY	DATE	CHECK	DATE		FIRST MADE FOR ADVANTX II		
REV 2 PCN	DESCRIPTION			APPR	DATE	Milwaukee, WI USA	DRAWING NO.	REV	SIZE
MADE BY	DATE	APPR BY	DATE	OTHER	DATE		2108822-SCH	0	B

SHT./CONT. ON 4/5

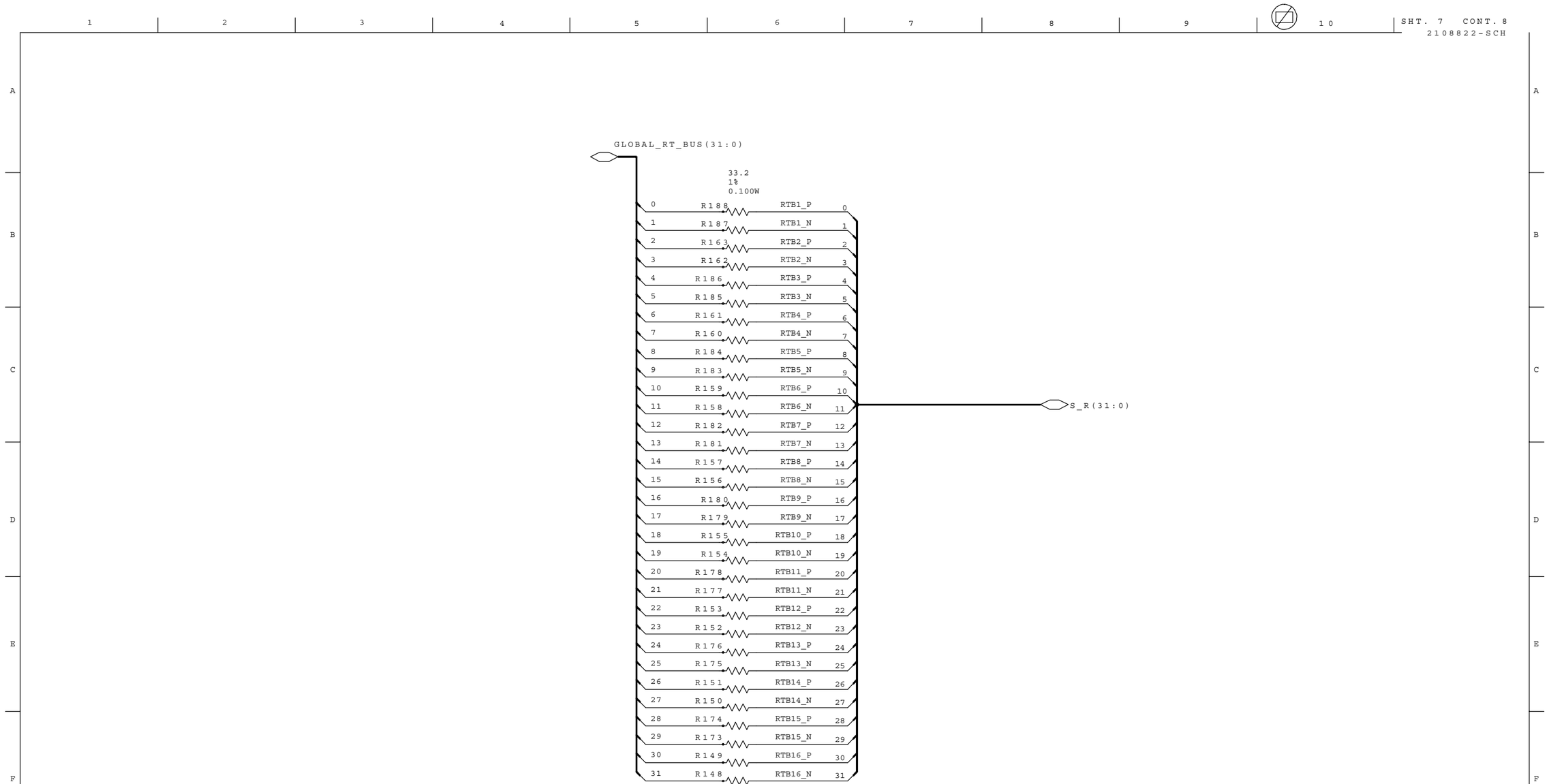
SHT. 5 CONT. 6
2108822-SCH



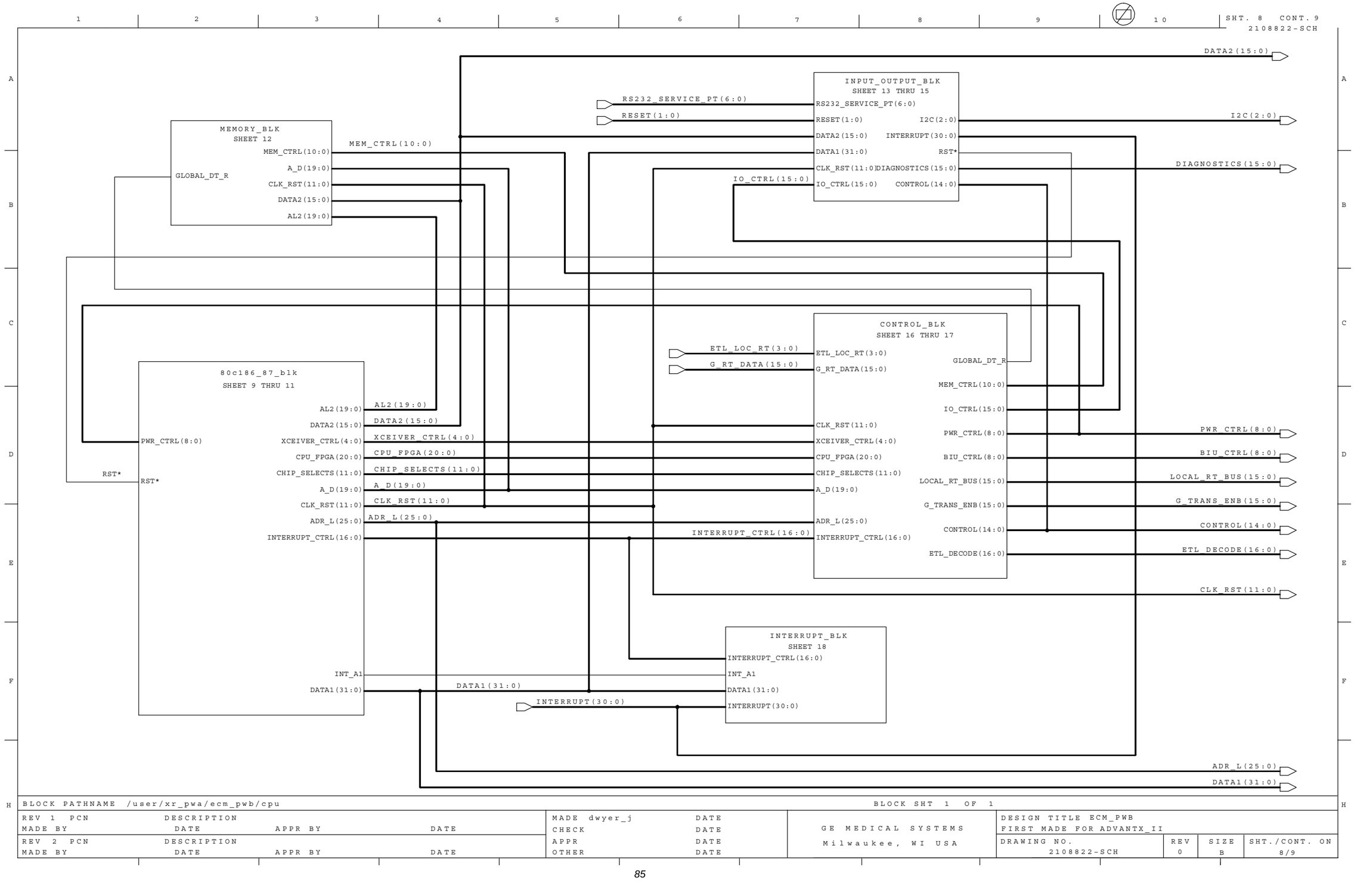
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/connector_blk/rt_bus_protection			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DATE / APPR BY / DATE	MADE J.Dwyer DATE 94-APR-10 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH · REV 0 · SIZE B · SHT./CONT. ON 5/6

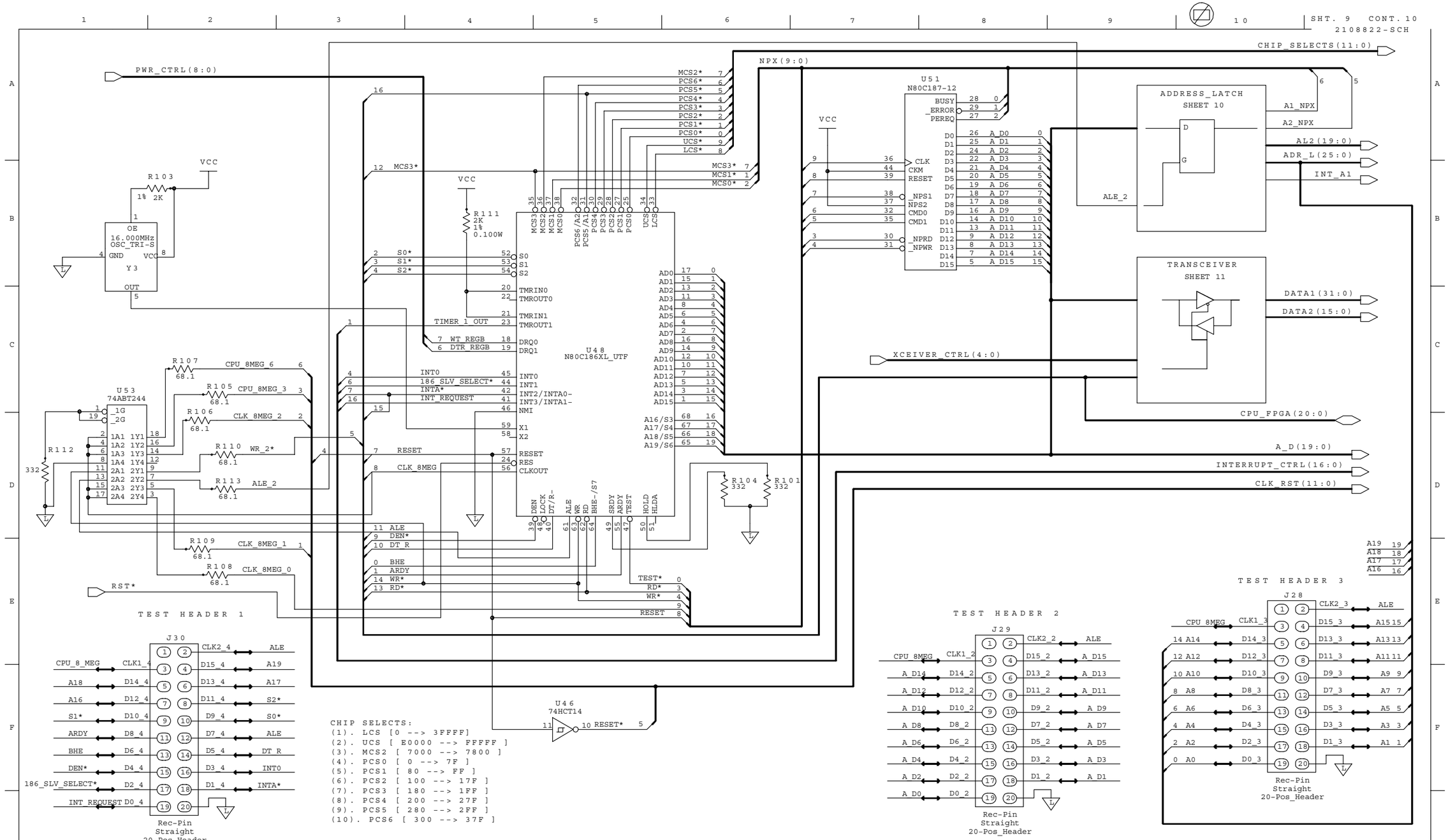


BLOCK PATHNAME /user/xr_pwa/ecm_pwb/connector_blk/rt_termination		BLOCK SHT 1 OF 1	
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH · REV 1 · SIZE B · SHT./CONT. ON 6/7



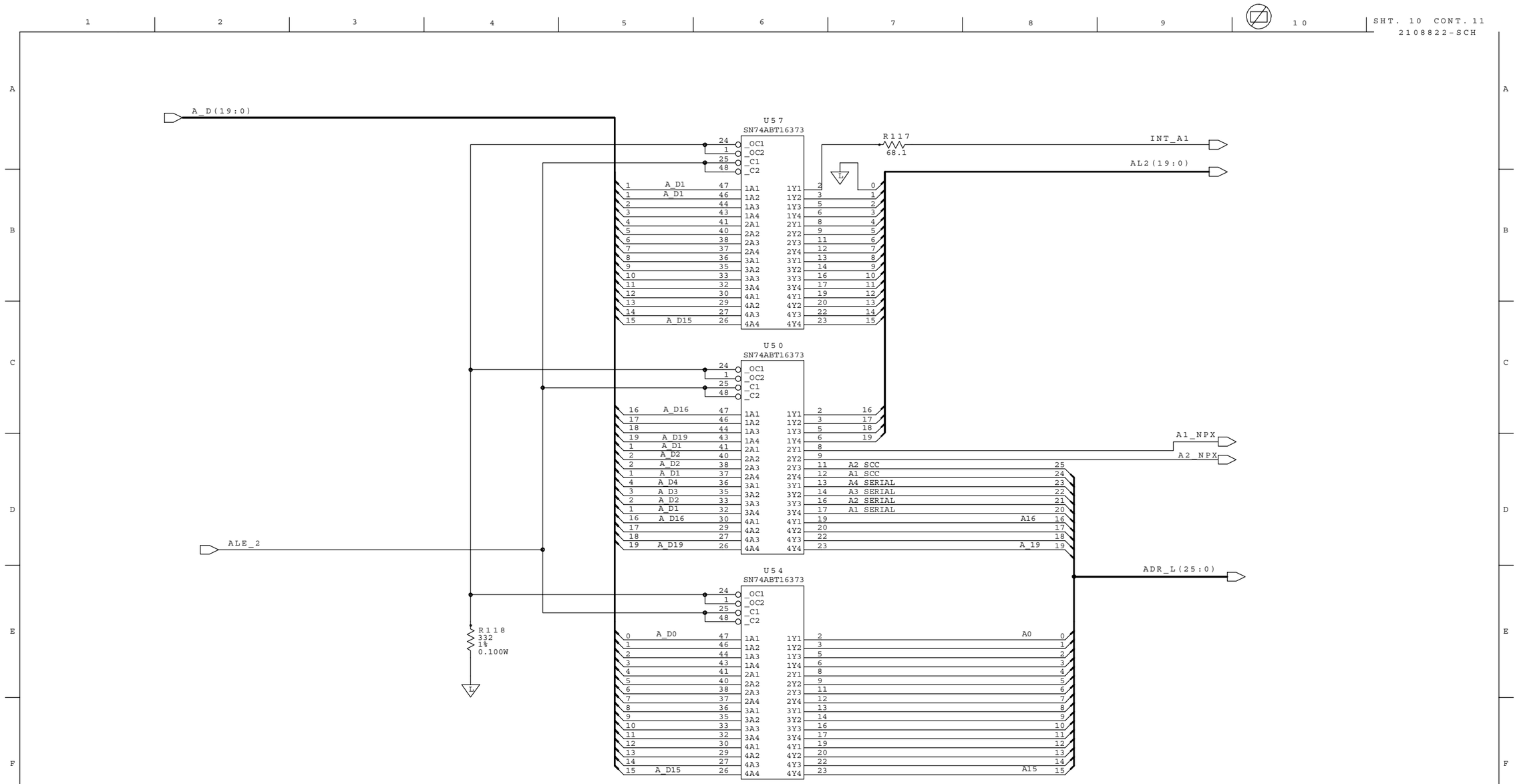
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/connector_blk/series_res			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 7/8


SHT. 8 CONT. 9
2108822-SCH
MEMORY_BLK
SHEET 12
MEM_CTRL(10:0)
A_D(19:0)
CLK_RST(11:0)
DATA2(15:0)
AL2(19:0)
GLOBAL_DT_R
INPUT_OUTPUT_BLK
SHEET 13 THRU 15
RS232_SERVICE_PT(6:0)
RESET(1:0)
DATA2(15:0)
DATA1(31:0)
CLK_RST(11:0)
IO_CTRL(15:0)
I2C(2:0)
INTERRUPT(30:0)
RST*
DIAGNOSTICS(15:0)
CONTROL(14:0)
80c186_87_blk
SHEET 9 THRU 11
PWR_CTRL(8:0)
RST*
AL2(19:0)
DATA2(15:0)
XCEIVER_CTRL(4:0)
CPU_FPGA(20:0)
CHIP_SELECTS(11:0)
A_D(19:0)
CLK_RST(11:0)
ADR_L(25:0)
INTERRUPT_CTRL(16:0)
INT_A1
DATA1(31:0)
CONTROL_BLK
SHEET 16 THRU 17
ETL_LOC_RT(3:0)
G_RT_DATA(15:0)
GLOBAL_DT_R
MEM_CTRL(10:0)
IO_CTRL(15:0)
PWR_CTRL(8:0)
BIU_CTRL(8:0)
LOCAL_RT_BUS(15:0)
G_TRANS_ENB(15:0)
CONTROL(14:0)
ETL_DECODE(16:0)
INTERRUPT_BLK
SHEET 18
INTERRUPT(30:0)
DATA2(15:0)
I2C(2:0)
DIAGNOSTICS(15:0)
PWR_CTRL(8:0)
BIU_CTRL(8:0)
LOCAL_RT_BUS(15:0)
G_TRANS_ENB(15:0)
CONTROL(14:0)
ETL_DECODE(16:0)
CLK_RST(11:0)
ADR_L(25:0)
DATA1(31:0)
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu
BLOCK SHT 1 OF 1
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE dwyer_j
CHECK
APPR
OTHER
DATE
GE MEDICAL SYSTEMS
Milwaukee, WI USA
DESIGN TITLE ECM_PWB
FIRST MADE FOR ADVANTX_II
DRAWING NO. 2108822-SCH
REV 0
SIZE B
SHT./CONT. ON 8/9

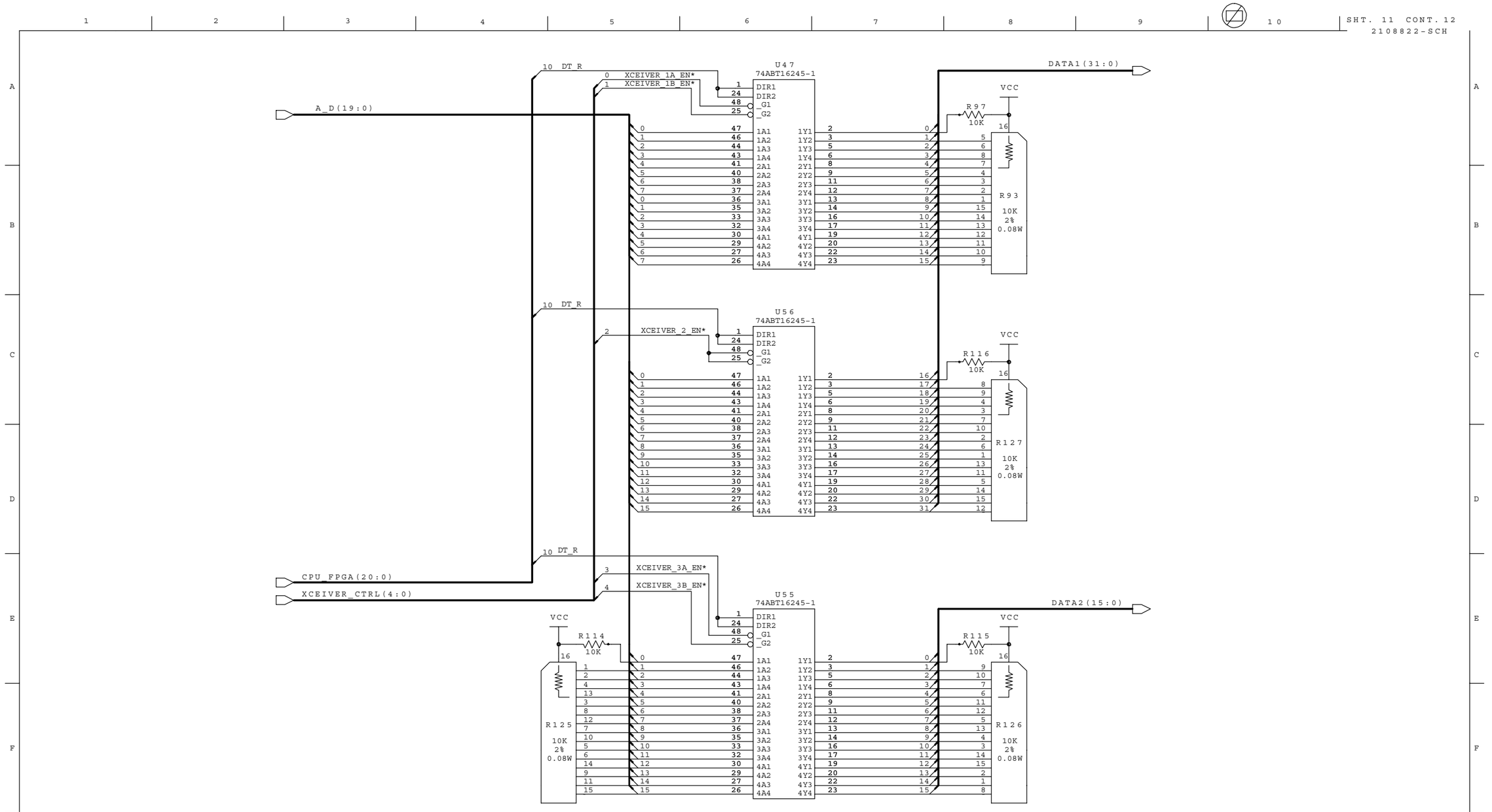


BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/80C186_87_blk			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY DATE	DESCRIPTION APPR BY DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA
REV 2 PCN MADE BY DATE	DESCRIPTION APPR BY DATE		

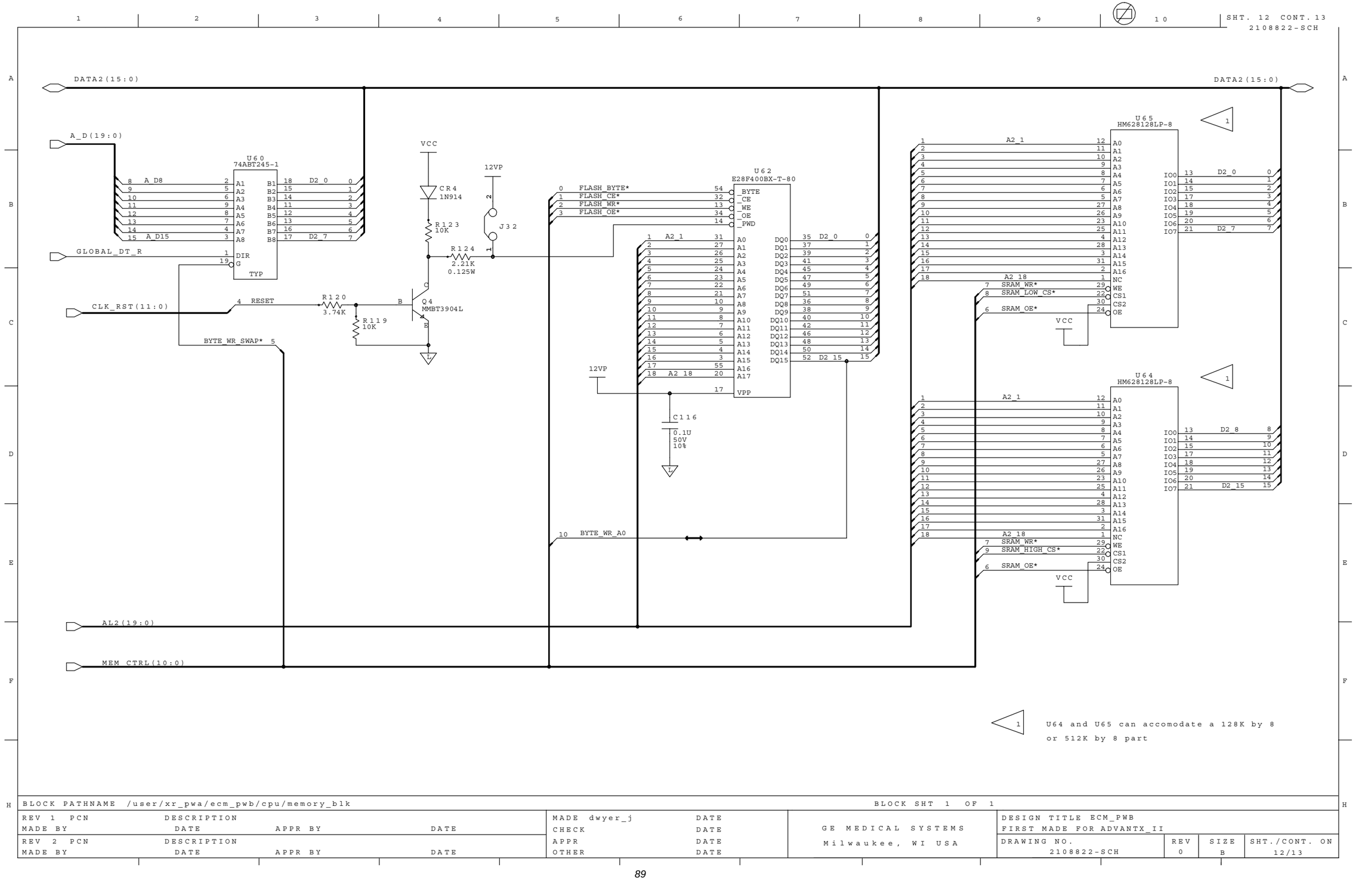
DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II			
DRAWING NO.	REV	SIZE	SHT./CONT. ON
2108822-SCH	1	B	9/10



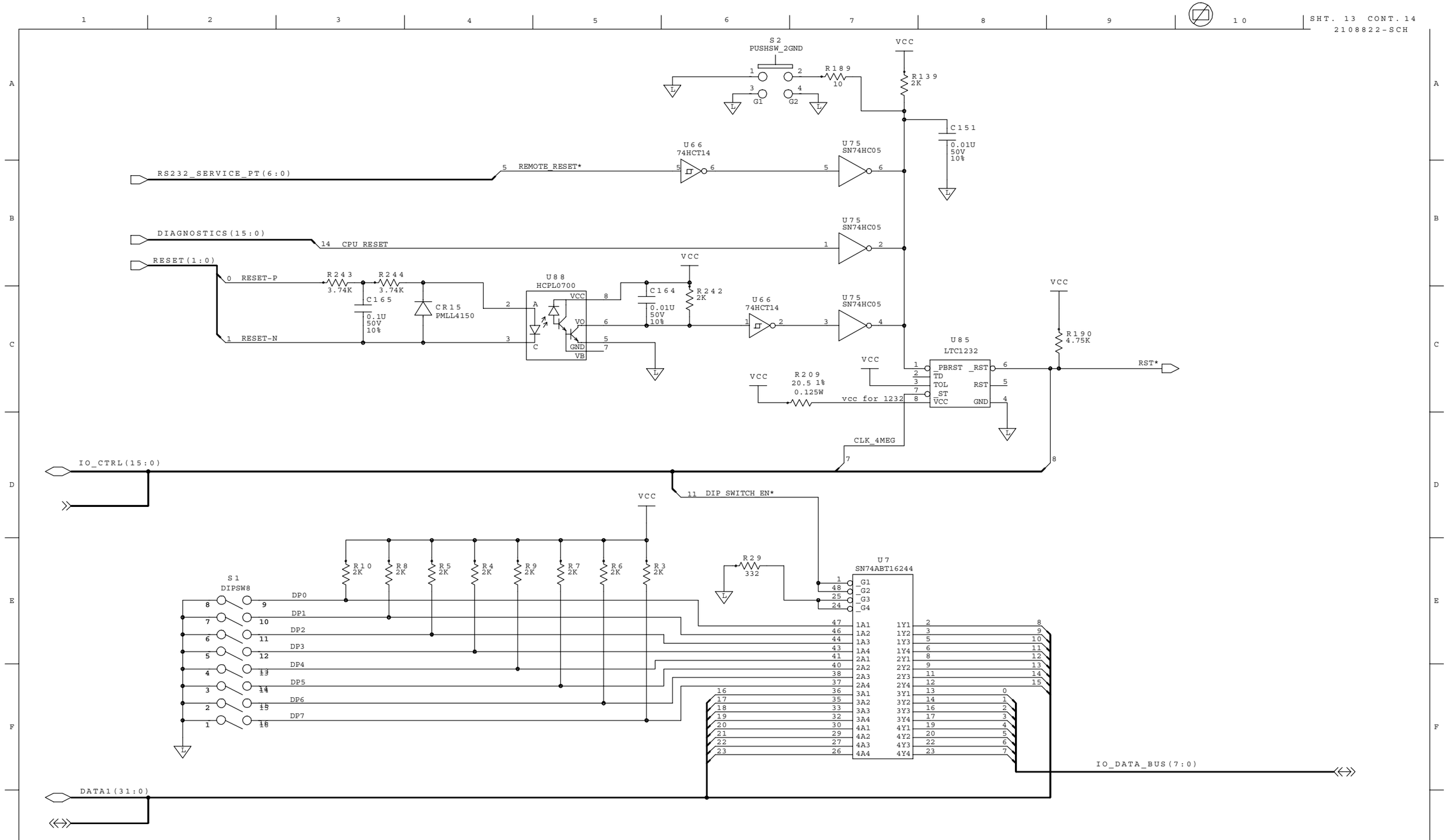
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/address_latch			BLOCK SHT 1 OF 1
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE dwyer_j / DATE CHECK / DATE APPR / DATE OTHER / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 10/11



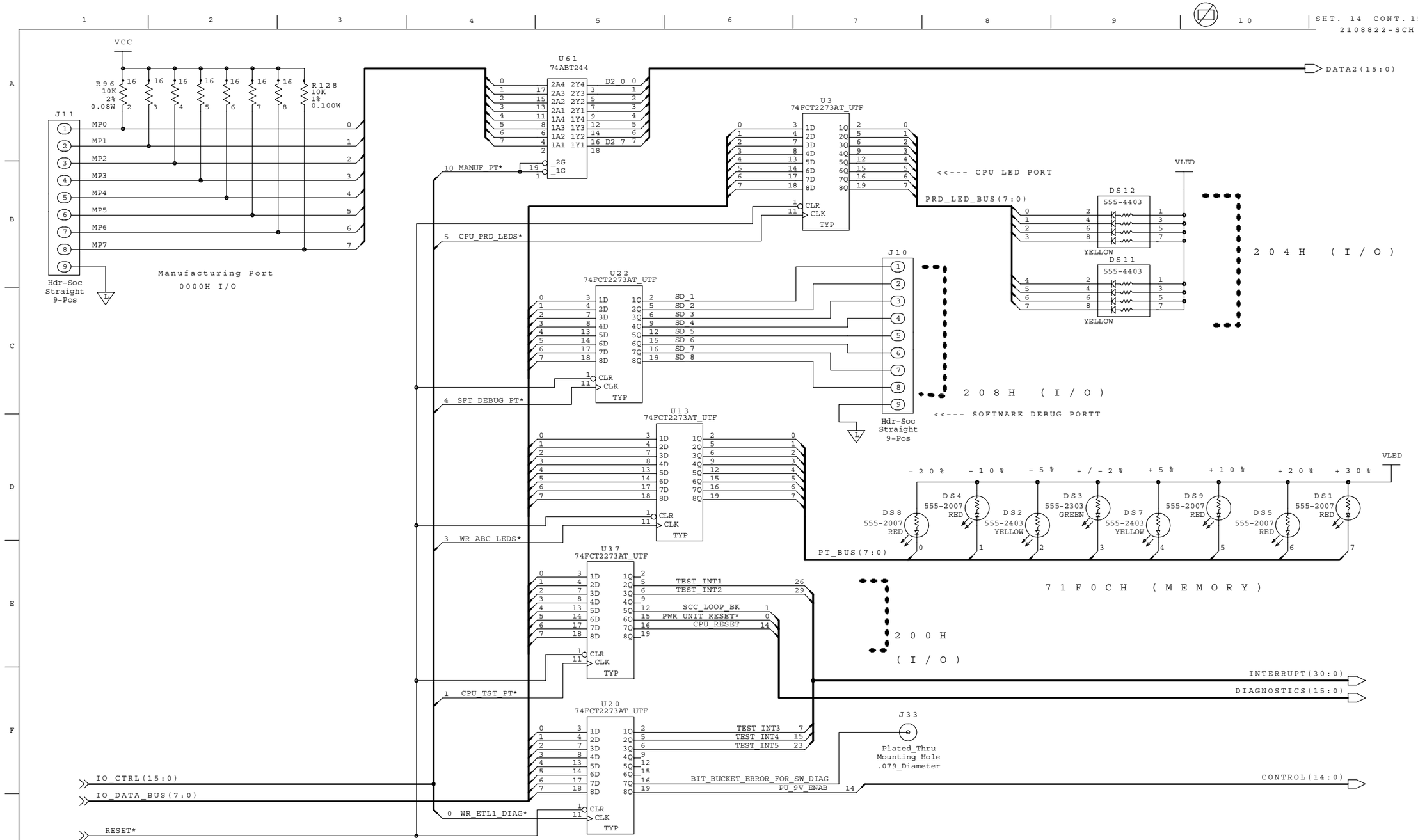
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/transceivers			BLOCK SHT 1 OF 1
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 11/12



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/memory_blk		BLOCK SHT 1 OF 1	
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH · REV 0 · SIZE B · SHT./CONT. ON 12/13



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/input_output_blk			BLOCK SHT 1 OF 3
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE dwyer_j / CHECK / APPR / OTHER — DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 13/14



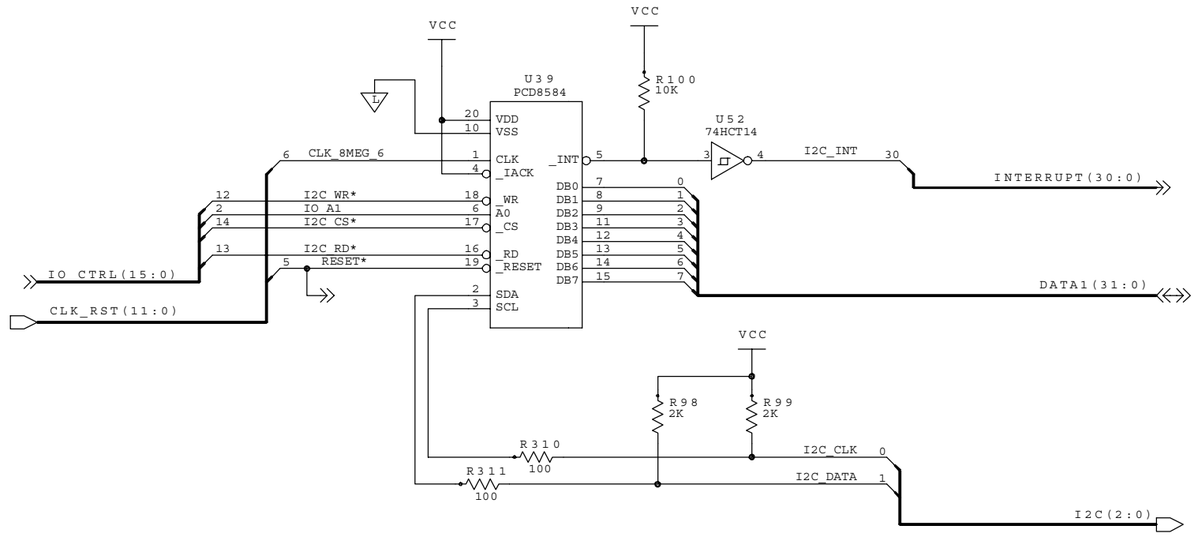
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/input_output_blk			BLOCK SHT 2 OF 3		
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE dwyer_j / CHECK / APPR / OTHER	DATE / DATE / DATE / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II	
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE				DRAWING NO. 2108822-SCH	REV 0 / SIZE B / SHT./CONT. ON 14/15

SHT. 15 CONT. 16
2108822-SCH

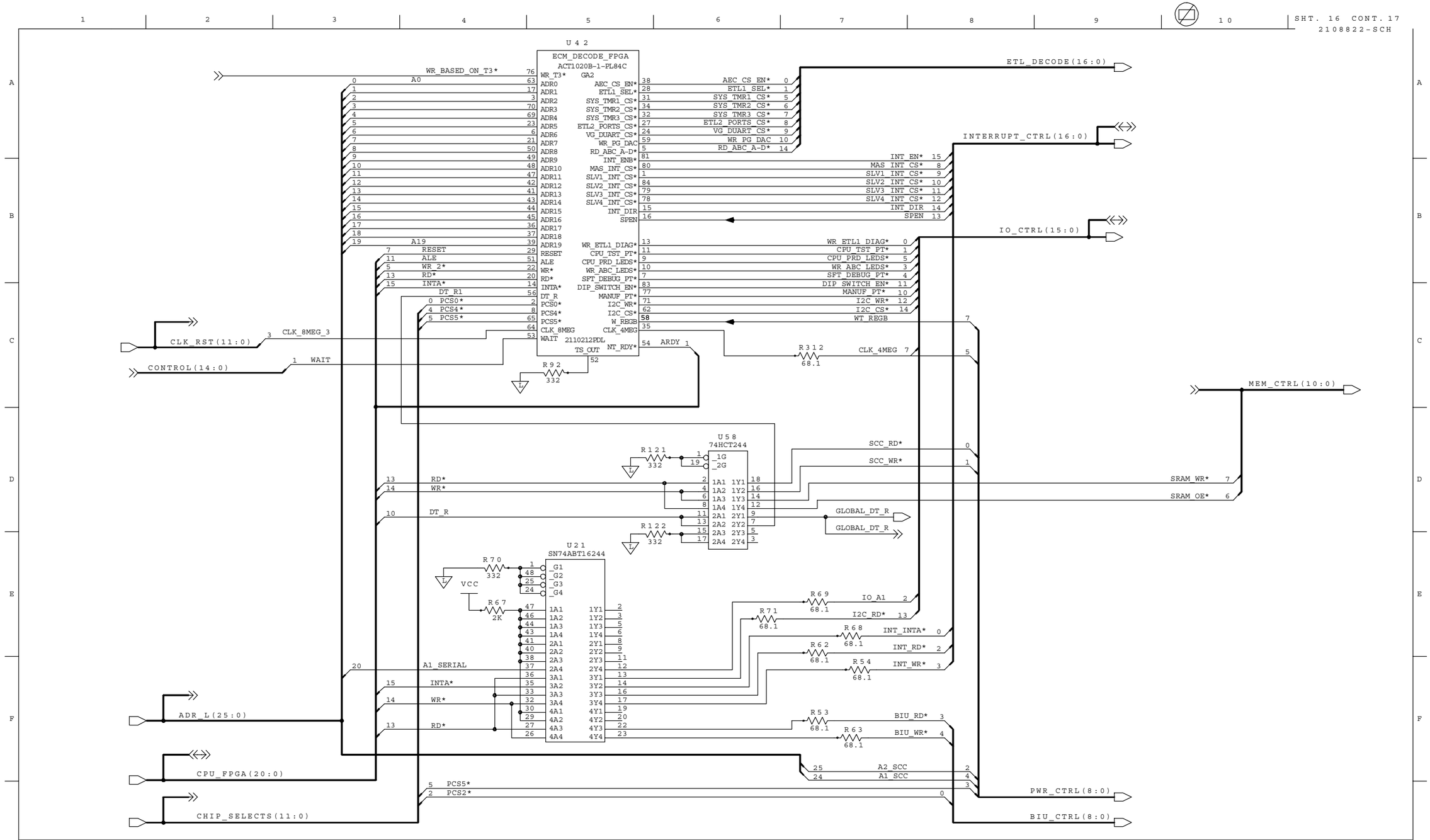
NOTES:

(1). The software driver for I2C must be written with two (nop) cycles after each read or write access. This will create at least 6 T-Cycles between accesses to the I2C master controller.

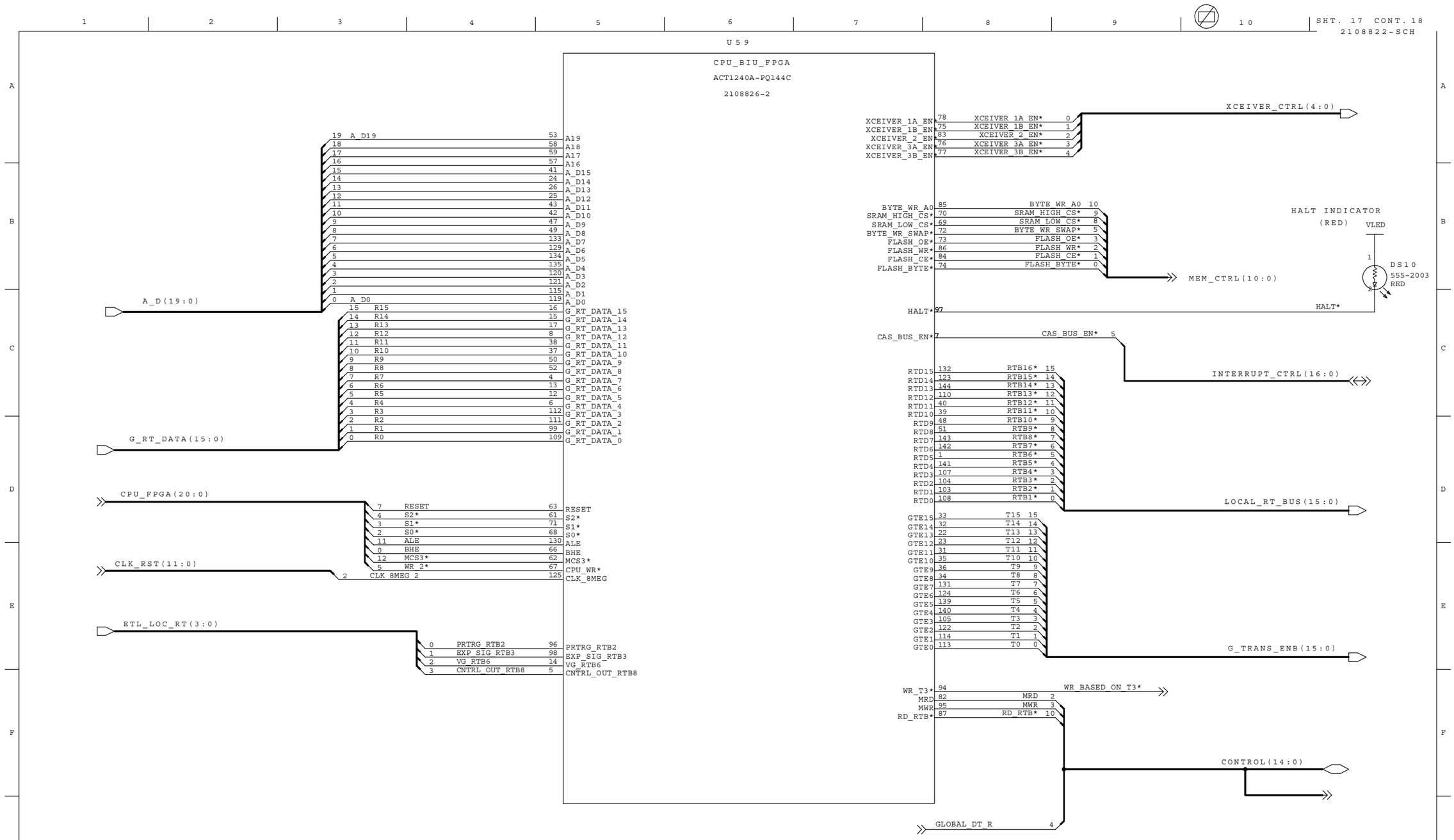
(2). The controller is addressable at addresses 02A0 IO and 02A2 IO.



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/input_output_blk		BLOCK SHT 3 OF 3	
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE dwyer_j / DATE CHECK / DATE APPR / DATE OTHER / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 15/16



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/control_blk			BLOCK SHT 1 OF 2
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 16/17



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/control_blk			BLOCK SHT 2 OF 2		
REV 1 PCN	DESCRIPTION	MADE dwyer_j	DATE	GE MEDICAL SYSTEMS	DESIGN TITLE ECM_PWB
MADE BY	DATE	APPR BY	DATE	CHECK	DATE		FIRST MADE FOR ADVANTX_II
REV 2 PCN	DESCRIPTION	APPR	DATE	Milwaukee, WI USA	DRAWING NO. 2108822-SCH	REV 1	SIZE B	SHT./CONT. ON 17/18
MADE BY	DATE	APPR BY	DATE	OTHER	DATE			

SHT. 18 CONT. 19
2108822-SCH

INTERRUPT(30:0)
CAS(14:0)
INTERRUPT_CTRL(16:0)
INT_A1
DATA1(31:0)
PIC_DATA(8:0)
I86_SLV_SEL* 6
CAS_BUS_EN* 5
ARCNET_INT 25
TESET_INT1 26
SCCINT 27
SERVICE_REQUEST 28
I2C_INT 30
TEST_INT2 29
INT_REQUEST 16
INT INTA* 0
INT_RD* 2
INT_WR* 3
MAS_INT_CS* 8
INT0 4
SLV1_INT_CS* 9
SPEN 13
INT_EN* 15
INT_DIR 14
DAT0_L
DAT7_L

U33 74ABT244
U35 74ABT244
U52 74HCT14
U49 74HCT11
U52 74HCT14
U45 74FCT2245AT_UTF TYP
U19 I8259A-2
U26 I8259A-2
U25 I8259A-2
U12 I8259A-2
U18 I8259A-2
MAX

R61 2K 1%
R76 2K 1%
R75 2K 1%
R49 2K 1%
R60 2K 1%
R66 332
R45 10K
R18 10K
R46 10K
R19 10K
R47 10K
R20 10K
R48 10K
R21 10K

PREP_EXP_TRANS
RCPTR_RDY_LOSS
WTCHDG_TMO
ABC_SMPL_RDY
TEST_INT3
TIMER5
TIMER15
RECIPE_PROCESS*
FLUORO_TMO
TEST_INT4
TIMER_1_OUT
TIMER6
CLK_50MS
EXP_STRETCHED
EXP_SIGNAL*
EXP_GATE*
TIMER10
TIMER9
TEST_INT5
SLV2_INT_CS*
SLV3_INT_CS*
SLV4_INT_CS*

BLOCK PATHNAME /user/xr_pwa/ecm_pwb/cpu/interrupt_blk			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE dwyer_j DATE CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH · REV 0 · SIZE B · SHT./CONT. ON 18/19

REAL-TIME BUS INTERFACE

LOCAL_RT_BUS(15:0)
G_TRANS_ENB(15:0)

U84 SN75176B
U74 SN75176B
U83 SN75176B
U73 SN75176B
U82 SN75176B
U72 SN75176B
U81 SN75176B
U71 SN75176B
U80 SN75176B
U70 SN75176B
U79 SN75176B
U69 SN75176B
U78 SN75176B
U68 SN75176B
U77 SN75176B
U67 SN75176B

T0 T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15
R0 R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15
RTB1* RTB2* RTB3* RTB4* RTB5* RTB6* RTB7* RTB8* RTB9* RTB10* RTB11* RTB12* RTB13* RTB14* RTB15* RTB16*
RTB1-P* RTB1-N* RTB2-P* RTB2-N* RTB3-P* RTB3-N* RTB4-P* RTB4-N* RTB5-P* RTB5-N* RTB6-P* RTB6-N* RTB7-P* RTB7-N* RTB8-P* RTB8-N*
RTB9-P* RTB9-N* RTB10-P* RTB10-N* RTB11-P* RTB11-N* RTB12-P* RTB12-N* RTB13-P* RTB13-N* RTB14-P* RTB14-N* RTB15-P* RTB15-N* RTB16-P* RTB16-N*

R208 R207 R206 R205 332

GLOBAL_RT_BUS(31:0)
G_RT_DATA(15:0)

GE BUS INTERFACE

U36 COM20020
ADR_L(25:0)
DATA1(31:0)
CLK_RST(11:0)
BIU_CTRL(8:0)
A1_SERIAL A2_SERIAL A3_SERIAL
DAT8_L DAT15_L
RESET* BIU_RD* BIU_WR* PCS2*
A0_MUX A1 A2_ALE AD0 AD1 AD2 D3 D4 D5 D6 D7 _RST _RD_DS _WR-DIR _CS XTAL1 XTAL2 RXIN _INTR
_PULSE1 _PULSE2 _TXEN TX_ENABLE

VCC
R34 82.5 1% 0.500W
R33 82.5 1% 0.500W
GE_BUS(1:0)
ARC_XMIT
J1 HFBR1527 AN CAT
CR3 BAV70
U8 SN75454B A1 B1 A2 B2 _Y1 _Y2

R77 2K
Y1 OSC_TRI-S 20.000MHz GND VCC OE OUT
R64 1.0K
U52 74HCT14
RXIN
ARC_RCV
J2 HFBR2521 VO GND RL VCC
C50 0.1U 50V 10%

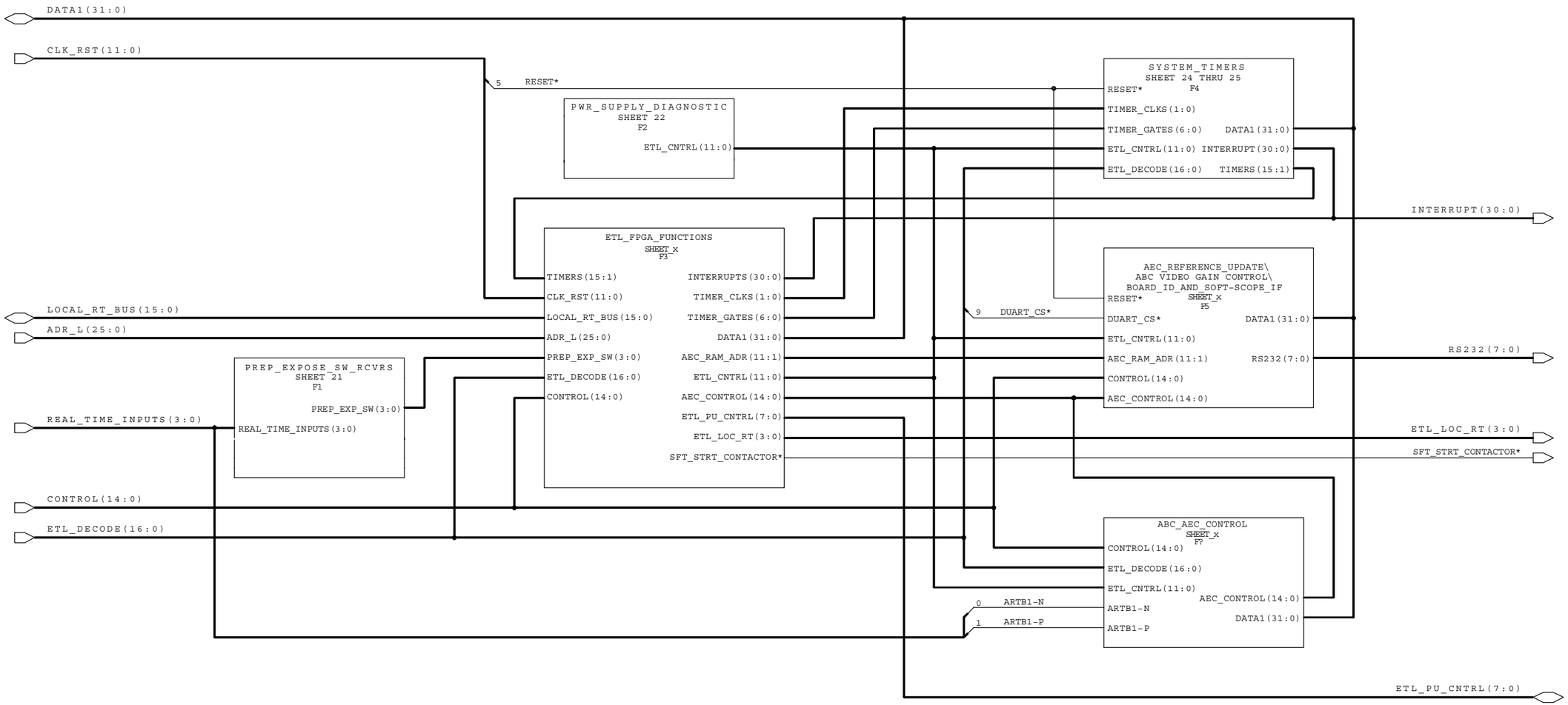
U2 74HCT14
ARCNET_INT
INTERRUPT(30:0)

J27
CLK1_2 CLK2_2
R137 R138 2K
D15_2 D14_2 D13_2 D12_2 D11_2 D10_2 D9_2 D8_2 D7_2 D6_2 D5_2 D4_2 D3_2 D2_2 D1_2 D0_2
LRTB_16 15 LRTB_14 13 LRTB_12 11 LRTB_10 9 LRTB_8 7 LRTB_6 5 LRTB_4 3 LRTB_2 1
Rec-Pin Straight 20-Pos_Header

BLOCK PATHNAME /user/xr_pwa/ecm_pwb/biu			BLOCK SHT 1 OF 1		
REV 1 PCN / MADE BY	DESCRIPTION / DATE	APPR BY / DATE	MADE dwyer_j / CHECK / APPR / OTHER	DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB; FIRST MADE FOR ADVANTX_II
REV 2 PCN / MADE BY	DESCRIPTION / DATE	APPR BY / DATE				DRAWING NO. 2108822-SCH; REV 0; SIZE B; SHT./CONT. ON 19/20

1 2 3 4 5 6 7 8 9 10 SHT. 20 CONT. 21 2108822-SCH

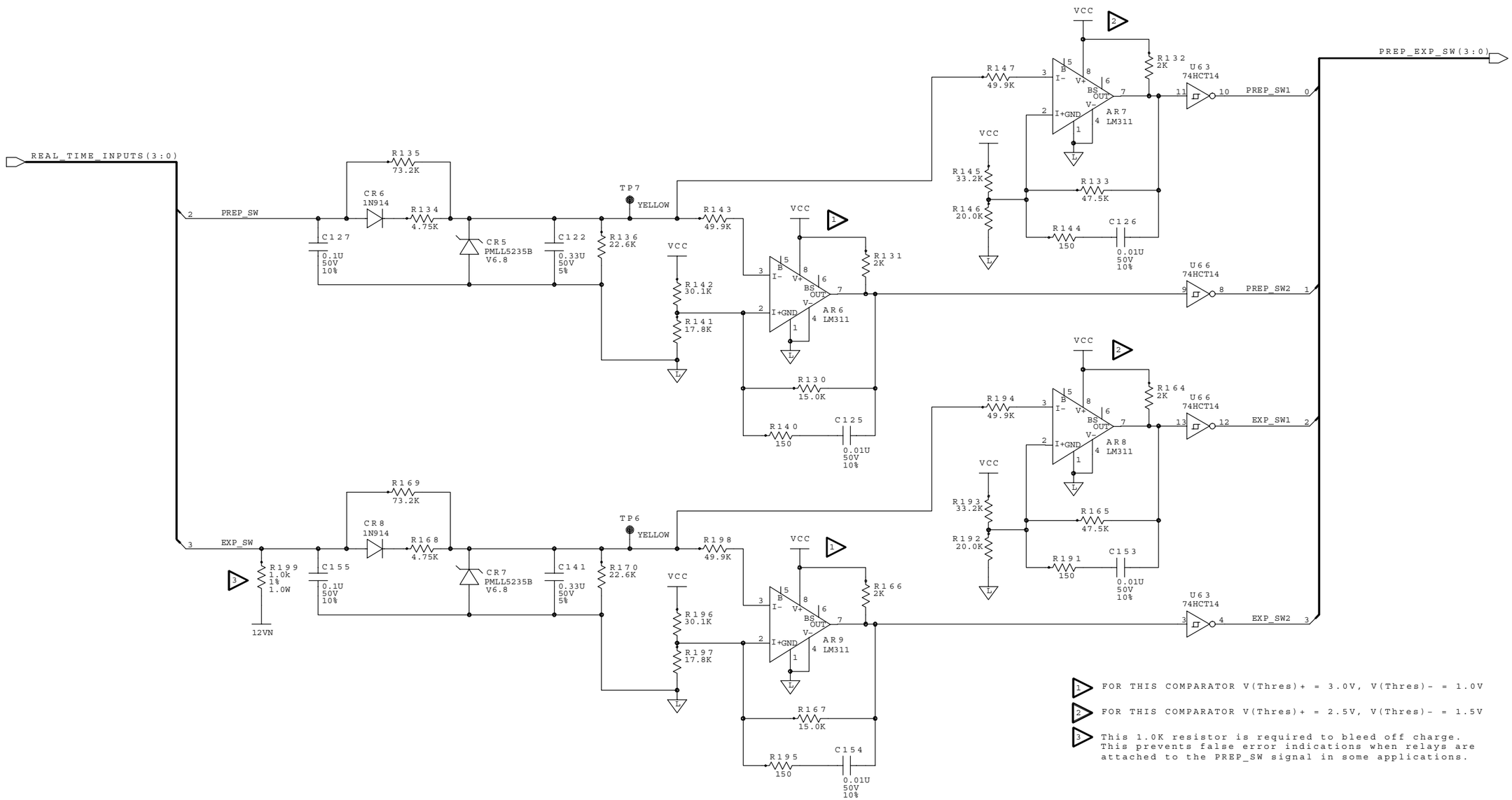
EXPOSURE TIMING LOGIC FUNCTIONS



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl				BLOCK SHT 1 OF 1	
REV 1 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	MADE F.BOEHM	DATE 94-APR-10	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / MADE BY	DESCRIPTION / DATE / APPR BY / DATE	CHECK APPR OTHER	DATE DATE DATE		DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 20/21

SHT. 21 CONT. 22
2108822-SCH

PREP / EXPOSE SWITCH RECEIVERS
(F1)



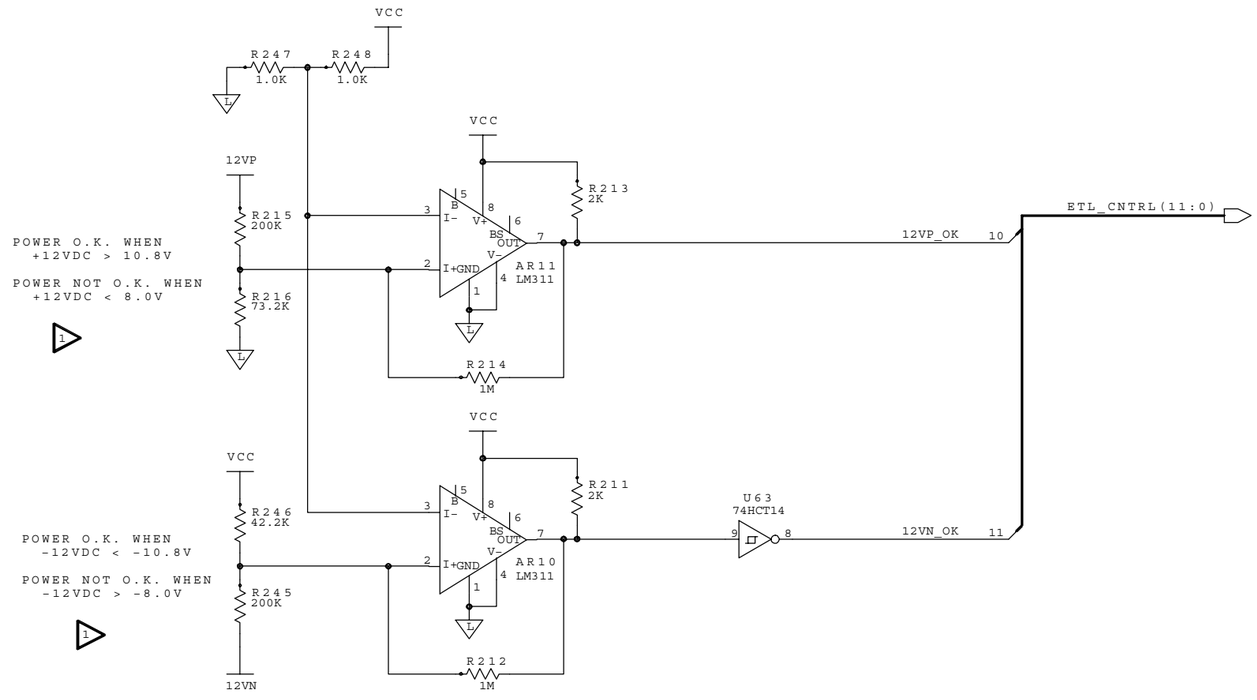
1. FOR THIS COMPARATOR V(Thres)+ = 3.0V, V(Thres)- = 1.0V
2. FOR THIS COMPARATOR V(Thres)+ = 2.5V, V(Thres)- = 1.5V
3. This 1.0K resistor is required to bleed off charge. This prevents false error indications when relays are attached to the PREP_SW signal in some applications.

BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl/prep_exp_sw_rcvrs		BLOCK SHT 1 OF 1	
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE F.BOEHM DATE 94-APR-10 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 21/22

SHT. 22 CONT. 23
2108822-SCH

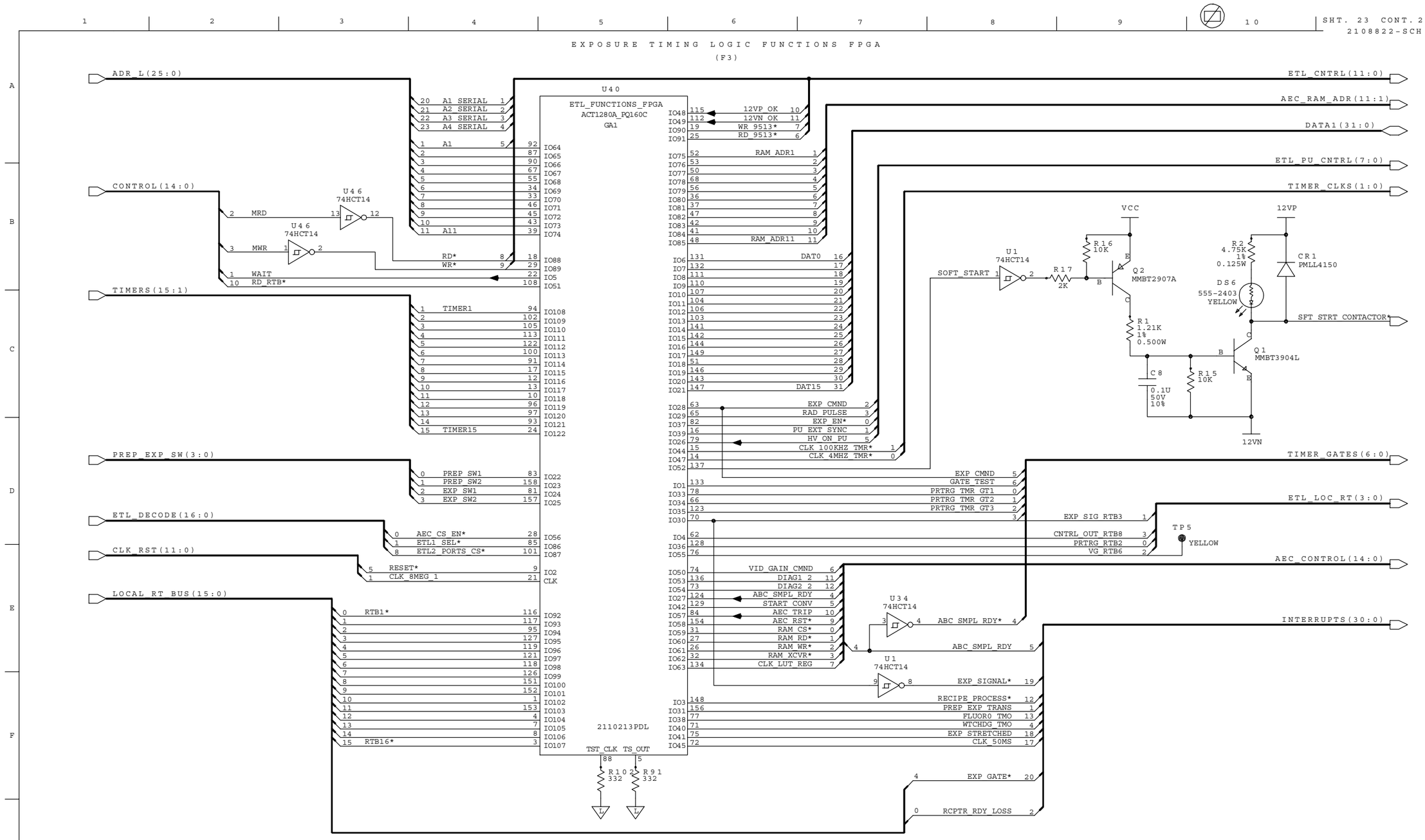
POWER SUPPLY DIAGNOSTICS

(F2)



1 Voltages indicted are worst case assuming Vcc(min) = 4.75V or Vcc(max) = 5.25V and worst case resistance values

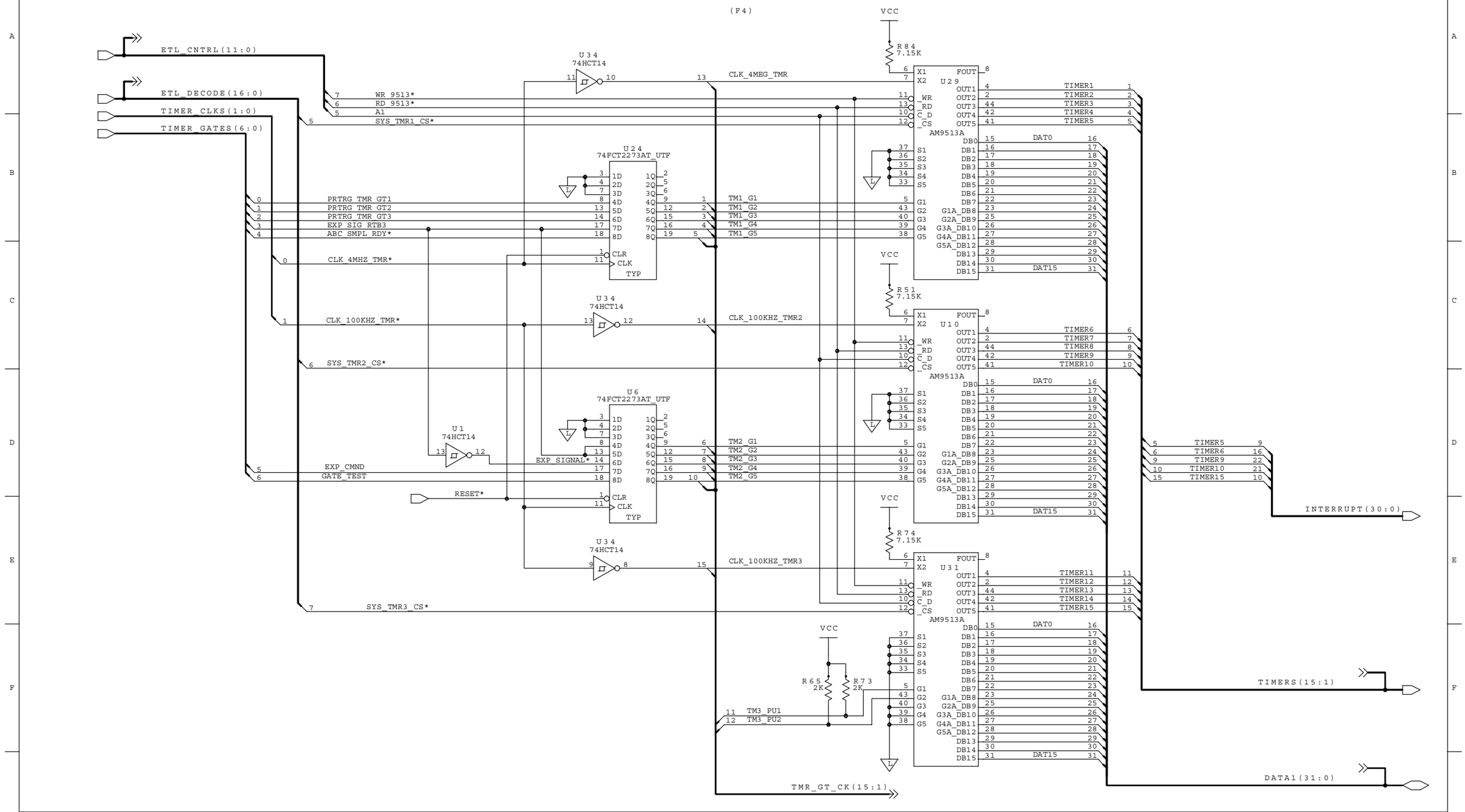
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/et1/pwr_supply_diag			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE F.BOEHM DATE 94-APR-10 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH · REV 0 · SIZE B · SHT./CONT. ON 22/23


SHT. 23 CONT. 24
2108822-SCH
EXPOSURE TIMING LOGIC FUNCTIONS FPGA
(F3)
U40
ETL_FUNCTIONS_FPGA
ACT1280A_PQ160C
GA1
ADR_L(25:0)
CONTROL(14:0)
TIMERS(15:1)
PREP_EXP_SW(3:0)
ETL_DECODE(16:0)
CLK_RST(11:0)
LOCAL_RT_BUS(15:0)
A1 SERIAL
A2 SERIAL
A3 SERIAL
A4 SERIAL
A1
A11
MRD
MWR
WAIT
RD_RTB*
RD*
WR*
TIMER1
TIMER15
PREP SW1
PREP SW2
EXP SW1
EXP SW2
AEC_CS_EN*
ETL1_SEL*
ETL2_PORTS_CS*
RESET*
CLK_8MEG_1
RTB1*
RTB16*
U46
74HCT14
2110213PDL
TST_CLK
TS_OUT
R102
R91
332
12VP_OK
12VN_OK
WR_9513*
RD_9513*
RAM_ADR1
RAM_ADR11
DAT0
DAT15
EXP_CMND
RAD_PULSE
EXP_EN*
PU_EXT_SYNC
HV_ON_PU
CLK_100KHZ_TMR*
CLK_4MHZ_TMR*
GATE_TEST
PRTRG_TMR_GT1
PRTRG_TMR_GT2
PRTRG_TMR_GT3
VID_GAIN_CMND
DIAG1_2
DIAG2_2
ABC_SMPL_RDY
START_CONV
AEC_TRIP
AEC_RST*
RAM_CS*
RAM_RD*
RAM_WR*
RAM_XCVR*
CLK_LUT_REG
RECIPE_PROCESS*
PREP_EXP_TRANS
FLUOR0_TMO
WTCHDG_TMO
EXP_STRETCHED
CLK_50MS
EXP_GATE*
RCPTR_RDY_LOSS
EXP_SIG_RTB3
CNTRL_OUT_RTB8
PRTRG_RTB2
VG_RTB6
ABC_SMPL_RDY*
ABC_SMPL_RDY
EXP_SIGNAL*
ETL_CNTRL(11:0)
AEC_RAM_ADR(11:1)
DATA1(31:0)
ETL_PU_CNTRL(7:0)
TIMER_CLKS(1:0)
TIMER_GATES(6:0)
ETL_LOC_RT(3:0)
AEC_CONTROL(14:0)
INTERRUPTS(30:0)
SOFT_START
SFT_STRT_CONTACTOR*
VCC
12VP
12VN
R16 10K
R17 2K
R1 1.21K 1% 0.500W
R2 4.75K 1% 0.125W
R15 10K
C8 0.1U 50V 10%
CR1 PMLL4150
DS6 555-2403 YELLOW
Q1 MMBT3904L
Q2 MMBT2907A
TP5
YELLOW
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl/etl_fpga
BLOCK SHT 1 OF 1
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE F.BOEHM
DATE 94-APR-10
CHECK
DATE
APPR
DATE
OTHER
DATE
GE MEDICAL SYSTEMS
Milwaukee, WI USA
DESIGN TITLE ECM_PWB
FIRST MADE FOR ADVANTX II
DRAWING NO. 2108822-SCH
REV 0
SIZE B
SHT./CONT. ON 23/24

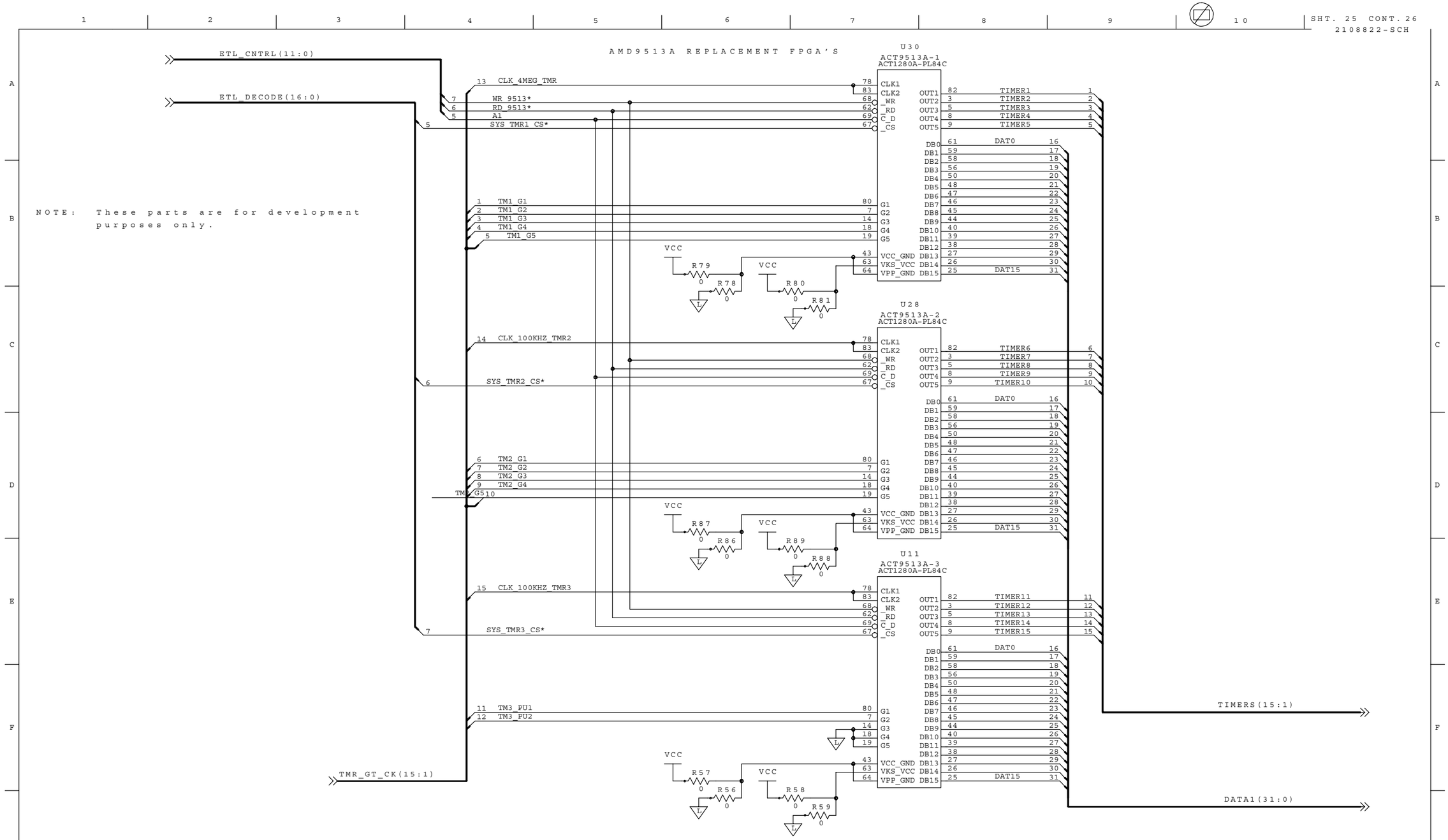
SHT. 24 CONT. 25
2108822-SCH

ECM SYSTEM TIMERS

(F4)



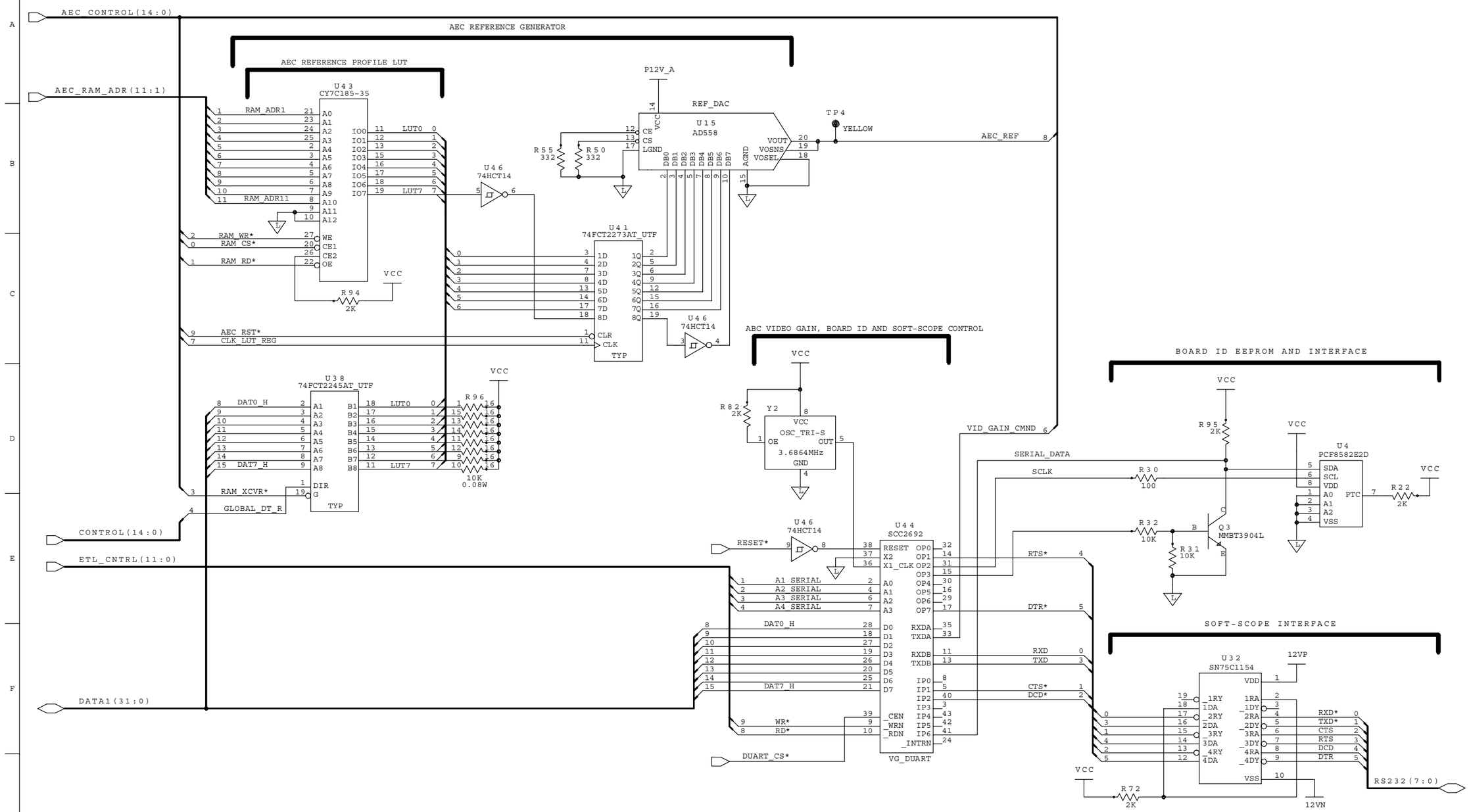
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl/system_timers			BLOCK SHT 1 OF 2
REV 1 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE	MADE F.BOEHM / DATE 94-APR-10 CHECK / DATE APPR / DATE OTHER / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / DESCRIPTION / MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 24/25



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/system_timers		BLOCK SHT 2 OF 2	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE F.BOEHM DATE 94-APR-10 CHECK DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE	APPR DATE OTHER DATE		DRAWING NO. 2108822-SCH · REV 0 · SIZE B · SHT/CONT. ON 25/26

SHT. 26 CONT. 27
2108822-SCH

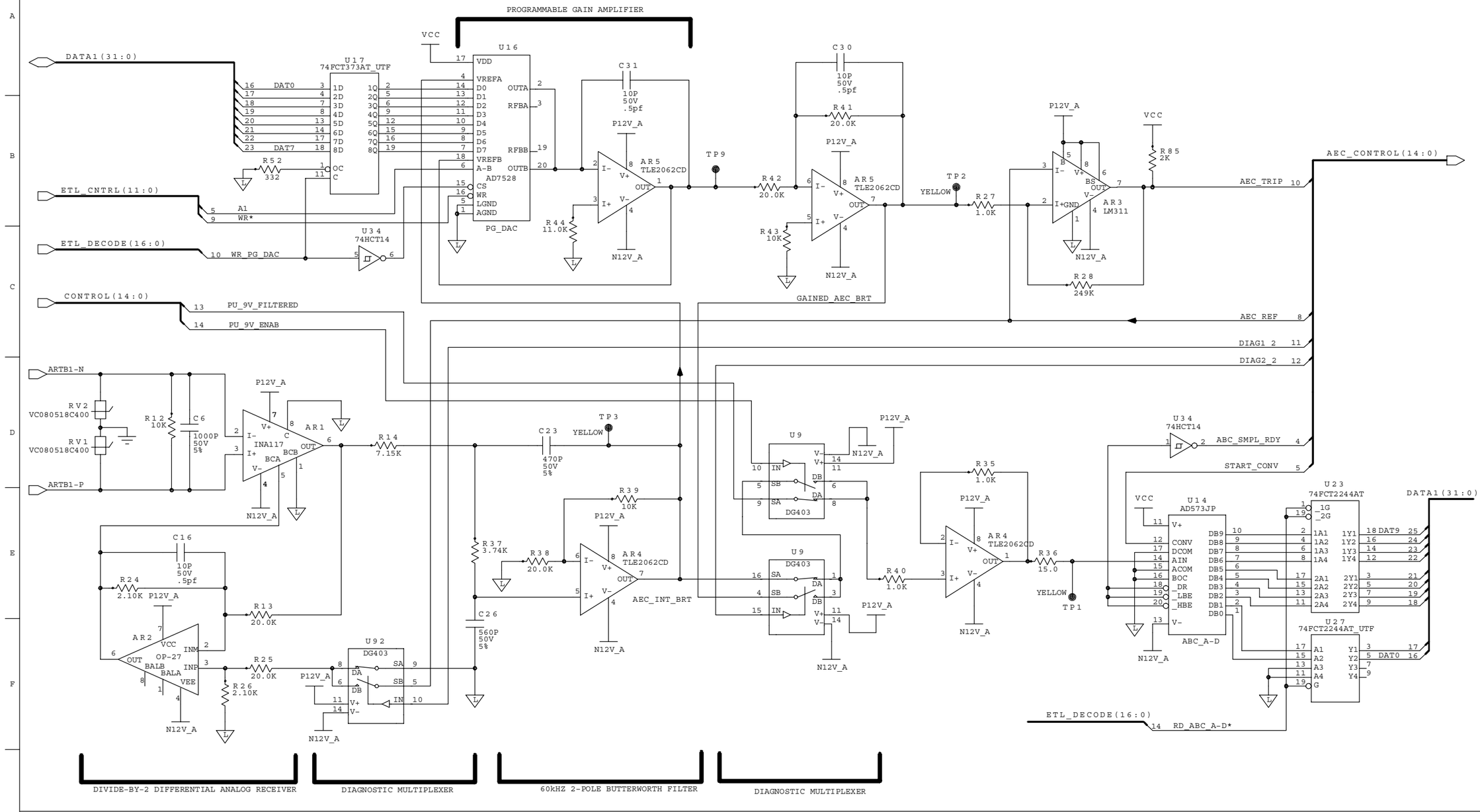
AEC REFERENCE UPDATE, ABC VIDEO GAIN, BOARD ID AND SOFT SCOPE INTERFACE
(F5)



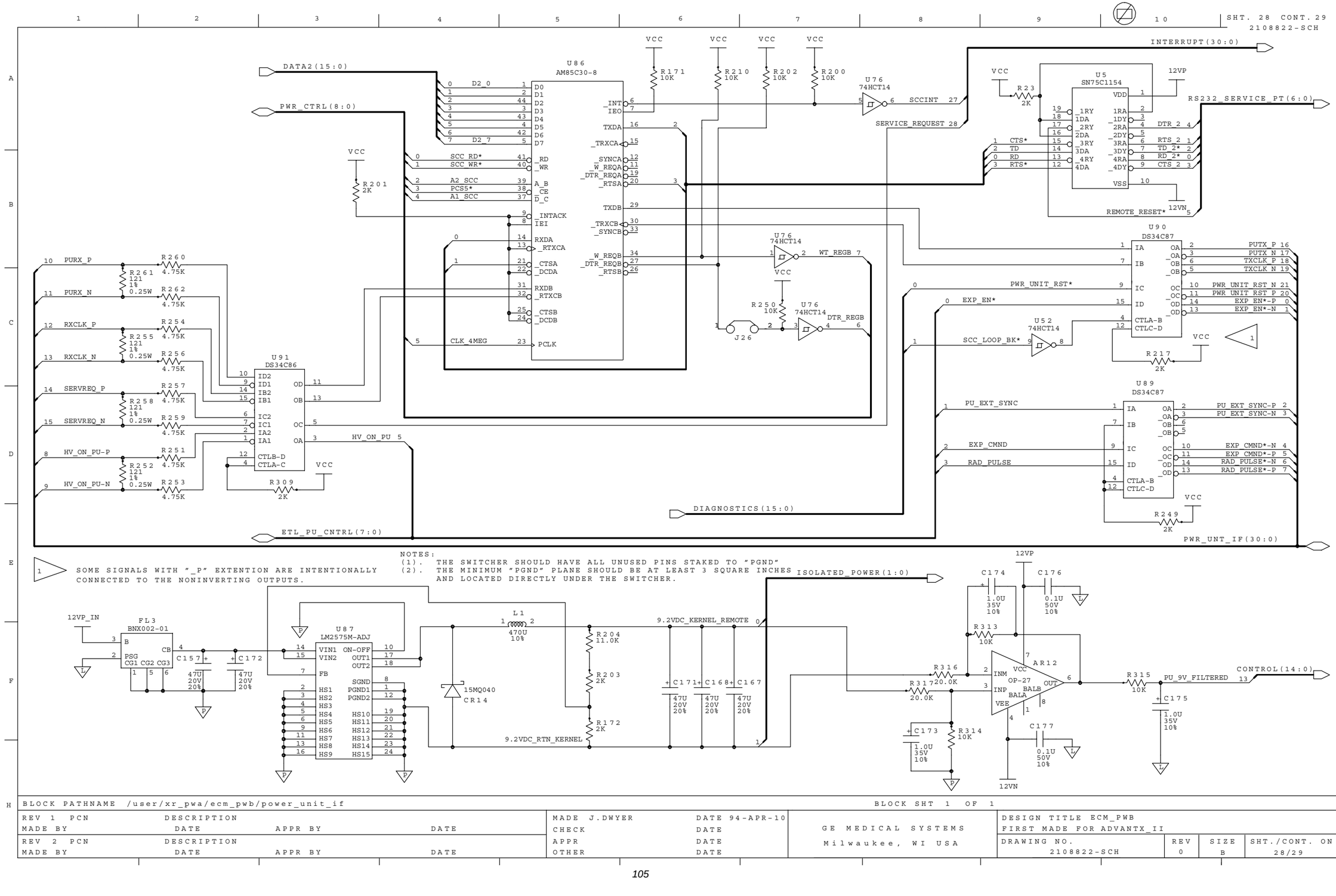
BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl/aec_ref_video_gain			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE F.BOEHM	DATE 94-APR-10	DESIGN TITLE ECM_PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	CHECK / APPR / OTHER	DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA
			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 26/27

SHT. 27 CONT. 28
2108822-SCH

AEC CONTROL AND ABC SAMPLING
(F6)



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/etl/abc_aec_control			BLOCK SHT 1 OF 1
REV 1 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE	MADE B.BRANECKY / DATE 94-APR-10 CHECK / DATE APPR / DATE OTHER / DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ECM PWB FIRST MADE FOR ADVANTX II
REV 2 PCN / DESCRIPTION MADE BY / DATE / APPR BY / DATE			DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 27/28



BLOCK PATHNAME /user/xr_pwa/ecm_pwb/power_unit_if			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE J.DWYER	DATE 94-APR-10	GE MEDICAL SYSTEMS Milwaukee, WI USA
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	CHECK / APPR / OTHER	DATE / DATE / DATE	DESIGN TITLE ECM_PWB; FIRST MADE FOR ADVANTX_II; DRAWING NO. 2108822-SCH; REV 0; SIZE B; SHT./CONT. ON 28/29

SHT. 29 CONT. 30
2108822-SCH

POWER SUPPLY DECOUPLING

ACTEL FPGA MODE PIN PULL-DOWN RESISTOR

GA1_MODE_PD — R83 10K
GA2_MODE_PD — R90 10K
GA3_MODE_PD — R129 10K

C9 C97 C108 C93 C106 C107 C102 C101 C44 C59 C105 C104 C103 C53 C61 C47 C54 C46 C34 C41 C48 C60 C10 C11 C62
C130 C75 C136 C76 C80 C115 C13 C70 C158 C68 C118 C95 C146 C88 C132 C42 C124 C120 C166 C2 C142 C19 C90 C85 C27
C150 C87 C81 C163 C51 C100 C152 C52 C91 C98 C147 C74 C133 C56 C119 C160 C77 C67 C128 C94 C73 C72 C64 C57 C32
C82 C156 C38 C86 C139 C169 C109 C112 C148 C43 C134 C36 C138 C140 C84 C89 C129 C22 C69 C131 C20 C49 C83 C159 C35
C58 C110 C96 C170 C21 C137 C149 C12 C135 C3 C65 C121 C79 C78 C111 C145 C63 C144 C55 C37 C143 C66 C99 C162

0.1U 50V 10%

DC_POWER_IN(5:0)

1 VCC_IN — FB3 — VCC — CR2 PRLL5817 — VLED

+C71 +C123 +C161 +C45 +C114 +C92 — 47U 10V 10%

TP11 BLACK
TP12 BLACK
TP10 BLACK
TP8 BLACK

ETL ANALOG SECTION POWER DECOUPLING

2 12VP_IN — FB2 — 12VP

+C117 22U 20V 10%
+C113 22U 20V 10%

3 12VN_IN — FB1 — 12VN

FL2 BNX002-01
FL1 BNX002-01
B, CB, PSG, CG1 CG2 CG3; pins 1 5 6

P12V_A

+C7 10U 25V 20%
C14 C40 C17 C24 C4 C28 — 0.1U 50V 10%

+C1 10U 25V 20%
C29 C25 C5 C33 C39 C15 C18 — 0.1U 50V 10%

N12V_A

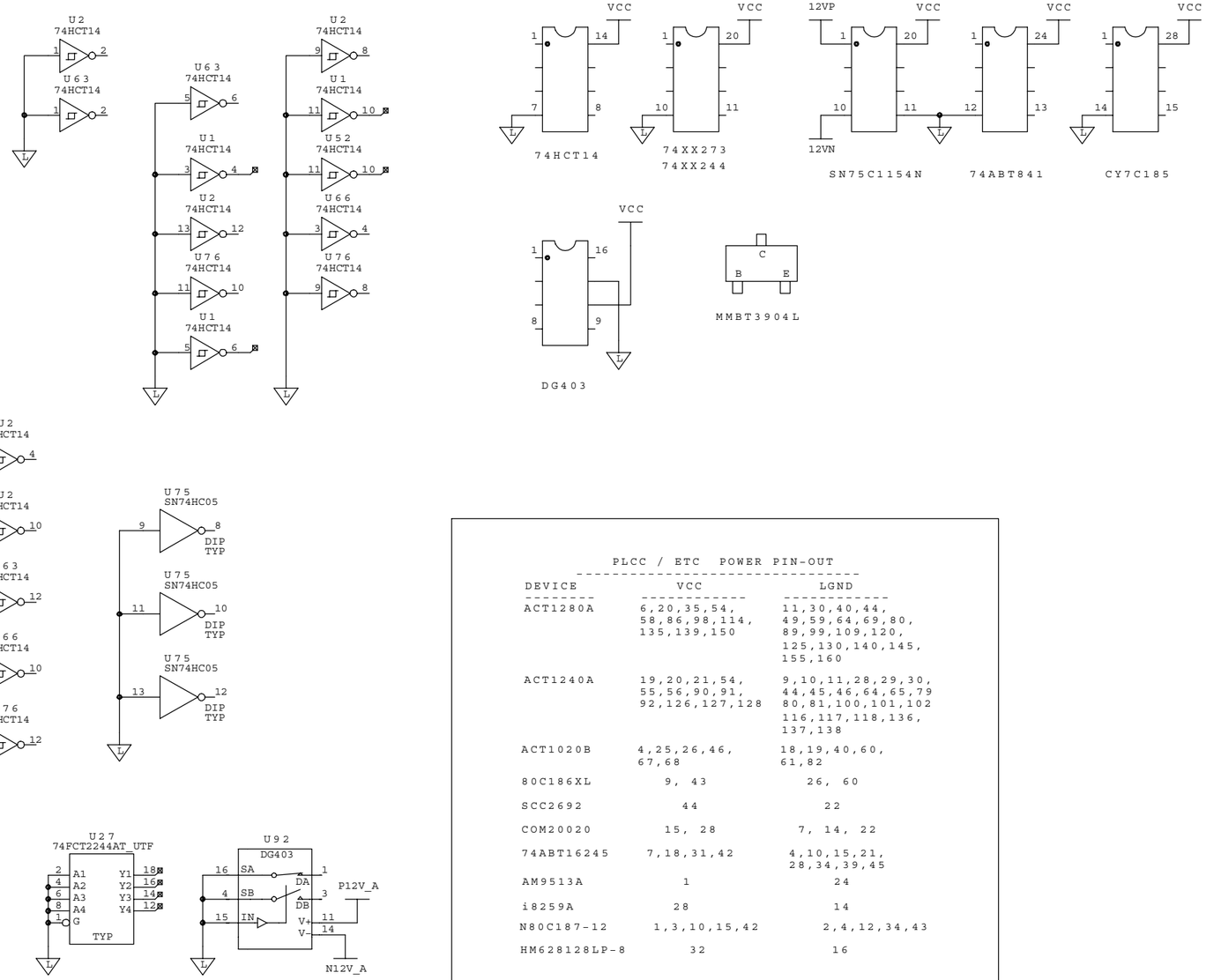
J35 J34 J36 J40 J39 J41 J38 J37
Plated_Thru Mounting_Hole .140_Diameter

BLOCK PATHNAME /user/xr_pwa/ecm_pwb/pwr_caps_unused_devices
BLOCK SHT 1 OF 2

REV 1 PCN	DESCRIPTION	MADE J.DWYER	DATE 94-APR-10	GE MEDICAL SYSTEMS	DESIGN TITLE ECM_PWB
MADE BY	DATE APPR BY DATE	CHECK	DATE	Milwaukee, WI USA	FIRST MADE FOR ADVANTX II
REV 2 PCN	DESCRIPTION	APPR	DATE		DRAWING NO. 2108822-SCH / REV 0 / SIZE B / SHT./CONT. ON 29/30
MADE BY	DATE APPR BY DATE	OTHER	DATE		

SHT. 30 CONT. - 2108822SCH

U N U S E D G A T E S , D E V I C E S C O D E S A N D S P A R E I C L O C A T I O N S



PLCC / ETC POWER PIN-OUT

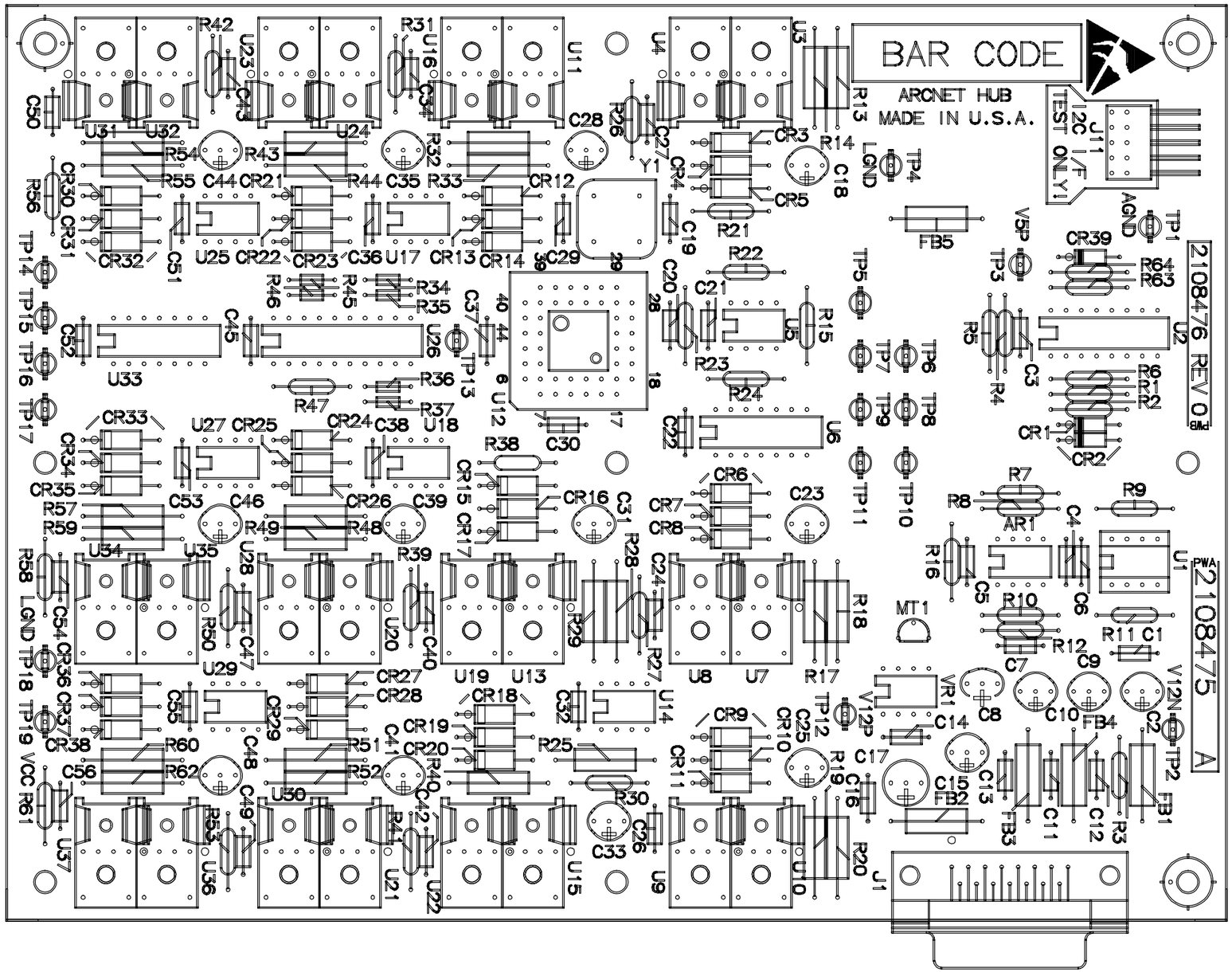
DEVICE	VCC	LGND
ACT1280A	6,20,35,54, 58,86,98,114, 135,139,150	11,30,40,44, 49,59,64,69,80, 89,99,109,120, 125,130,140,145, 155,160
ACT1240A	19,20,21,54, 55,56,90,91, 92,126,127,128	9,10,11,28,29,30, 44,45,46,64,65,79 80,81,100,101,102 116,117,118,136, 137,138
ACT1020B	4,25,26,46, 67,68	18,19,40,60, 61,82
80C186XL	9, 43	26, 60
SCC2692	44	22
COM20020	15, 28	7, 14, 22
74ABT16245	7,18,31,42	4,10,15,21, 28,34,39,45
AM9513A	1	24
i8259A	28	14
N80C187-12	1,3,10,15,42	2,4,12,34,43
HM628128LP-8	32	16

BLOCK PATHNAME /user/xr_pwa/ecm_pwb/pwr_caps_unused_devices

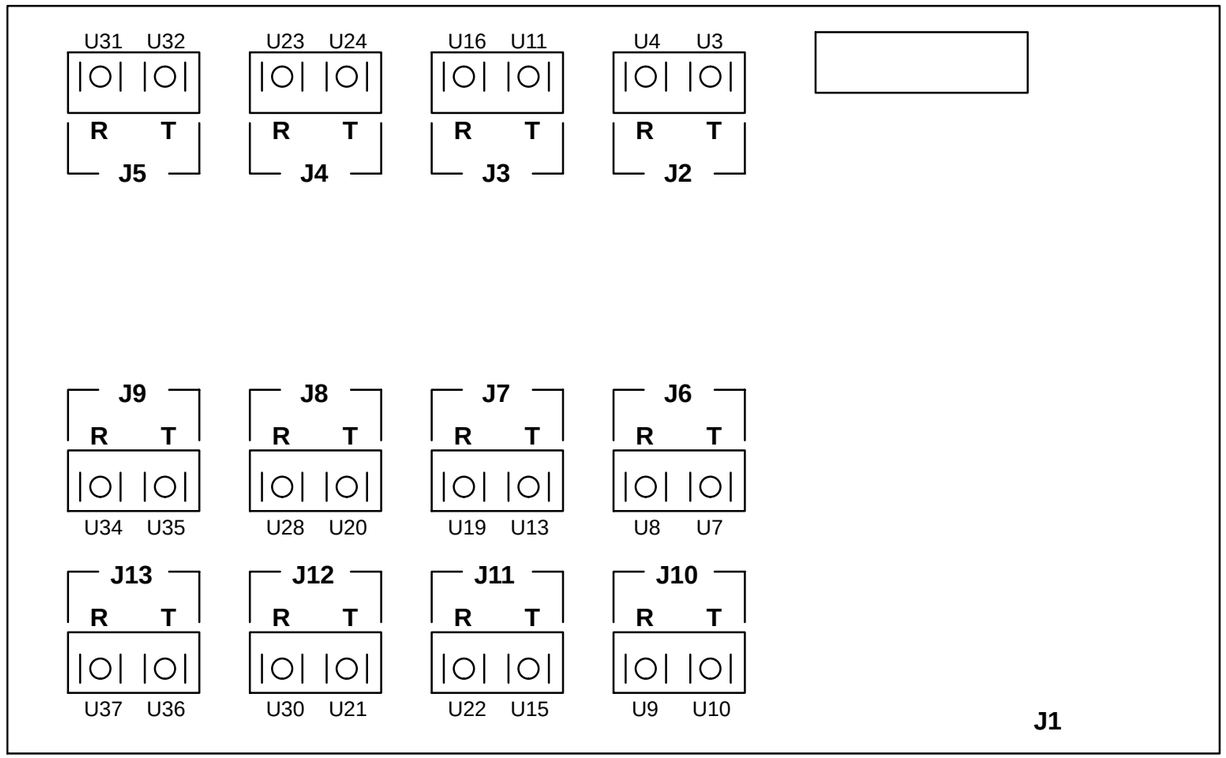
BLOCK SHT 2 OF 2

REV 1 PCN	DESCRIPTION			MADE J. Dwyer	DATE 94-APR-10	GE MEDICAL SYSTEMS	DESIGN TITLE ECM_PWB
MADE BY	DATE	APPR BY	DATE	CHECK	DATE		FIRST MADE FOR ADVANTX_II
REV 2 PCN	DESCRIPTION			APPR	DATE	Milwaukee, WI USA	DRAWING NO. 2108822SCH / REV 1 / SIZE B / SHT./CONT. ON 30/-
MADE BY	DATE	APPR BY	DATE	OTHER	DATE		

SECTION 11
SKL A3, 2111391, (ADW) AND 2108475SCH (HUB)



MODULE COVER TO CIRCUIT BOARD DESIGNATOR CROSS−REFERENCE DIAGRAM



R=Blue T=Gray

U## designators refer to the Arcnet receivers and transmitters located on the circuit board beneath the cover.

1 2 3 4 5 6 7 8 9 10

SHT. 1 CONT. 2
2108475SCH

SHEET_NAME	SHT NUM	REV
COVER_SHEET	1	0
BLOCK_DIAG-SH 1	2	0
BLOCK_DIAG-SH 2	3	0
FIBER_XCVRS-SH 1	4	0
FIBER_XCVRS-SH 2	5	0
FIBER_XCVRS-SH 3	6	0
HUB_CONTROLLER	7	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------		
0	------		

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2108475
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.25W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

NOTE:

VERIFY THIS PRINT IS THE LATEST REVISION USING GE PRODUCT STRUCTURE SYSTEM (PSS).

BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub/cover_sheet

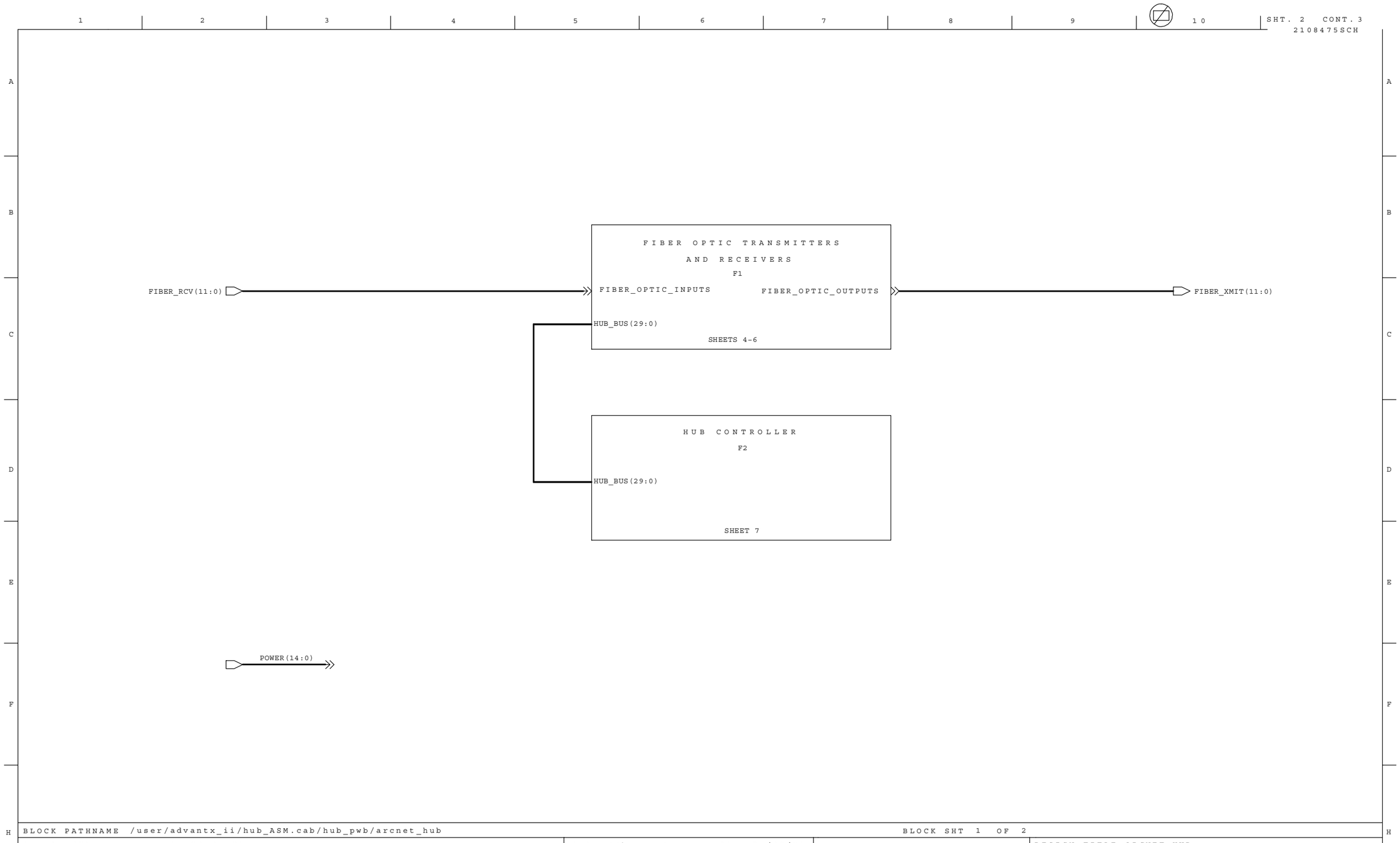
BLOCK SHT 1 OF 1

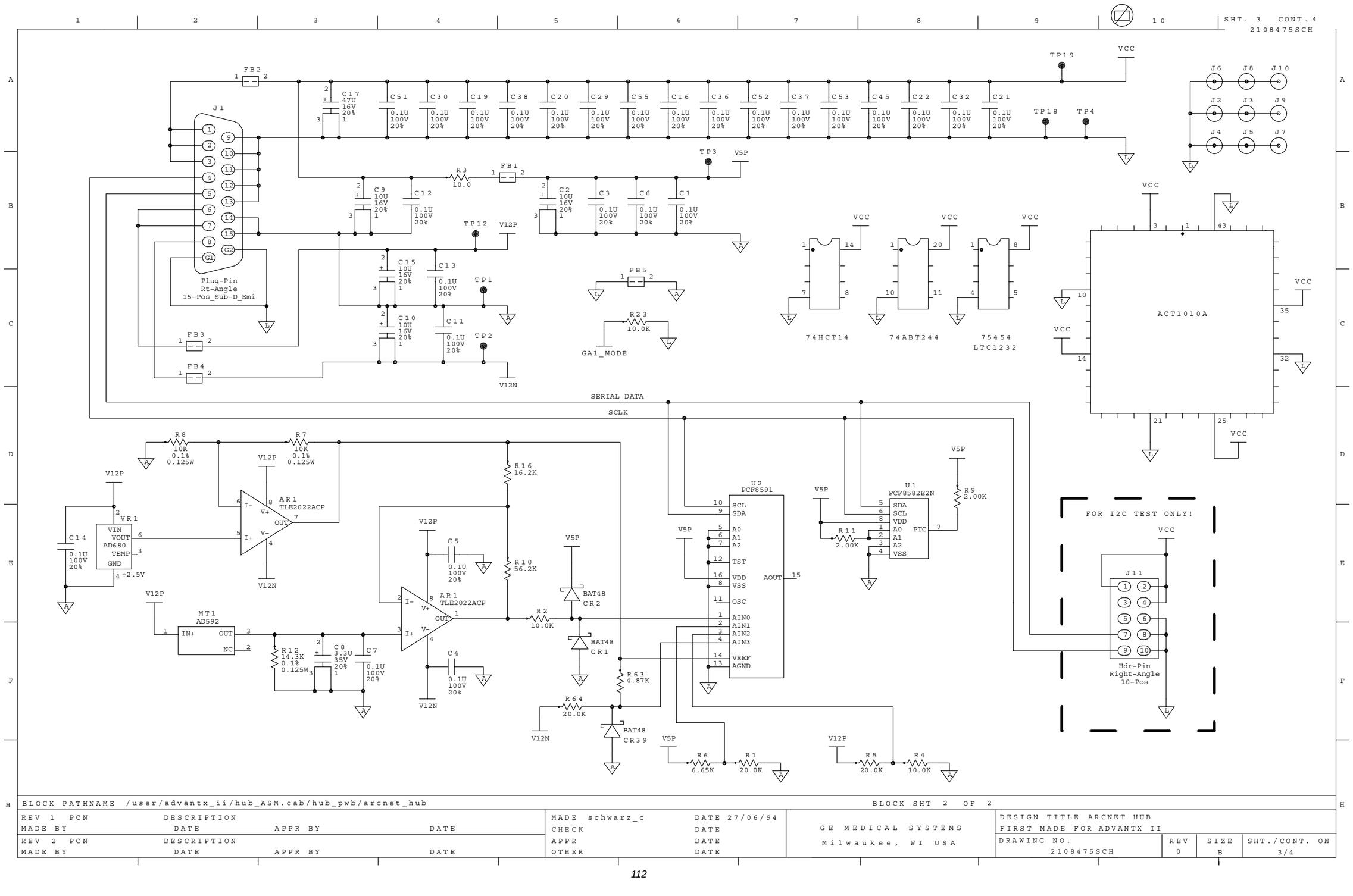
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE schwarz_c CHECK APPR OTHER	DATE 27/06/94 DATE DATE DATE
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE		

GE MEDICAL SYSTEMS
Milwaukee, WI USA

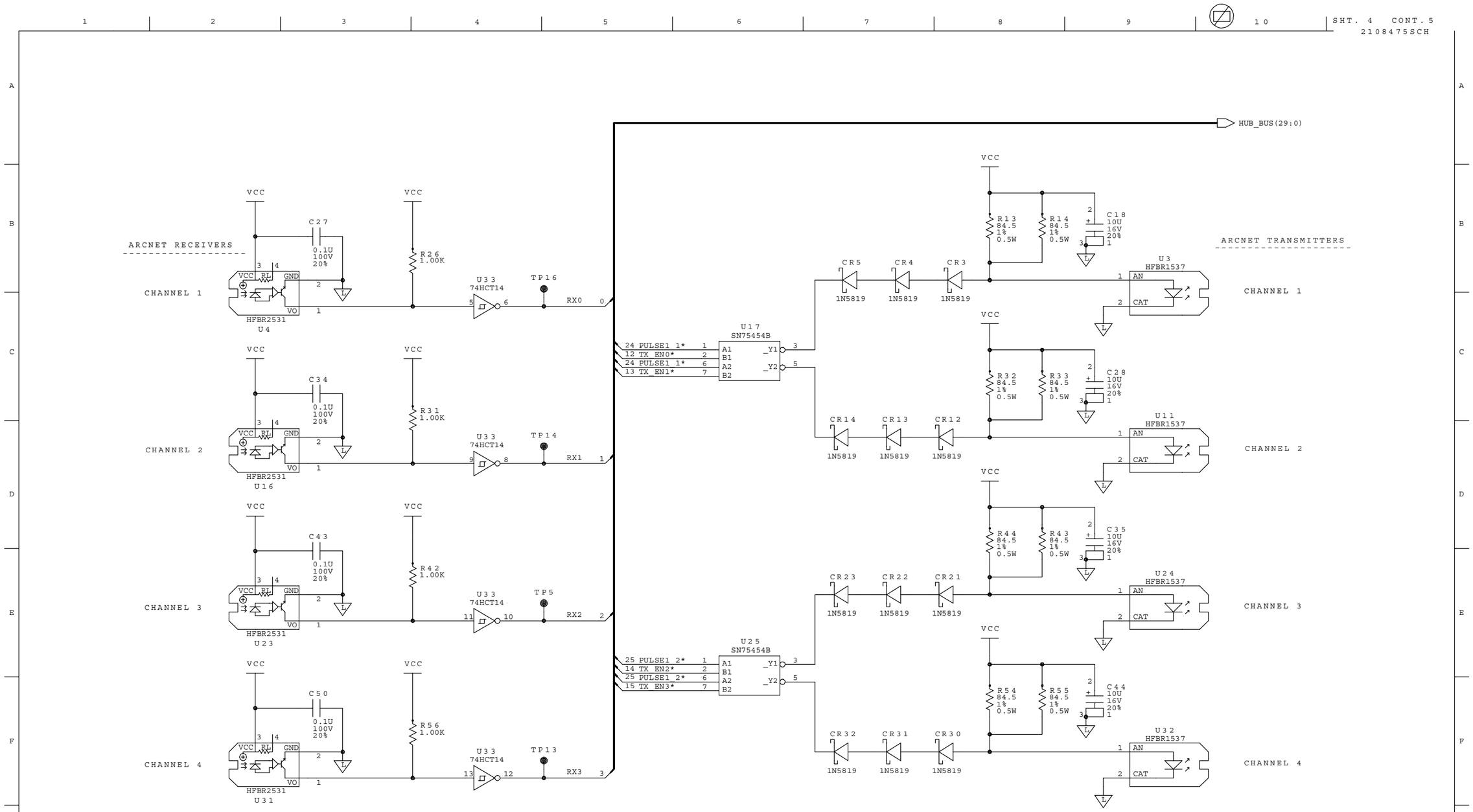
DESIGN TITLE ARCNET HUB
FIRST MADE FOR ADVANTX II

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2108475SCH	0	B	1/2

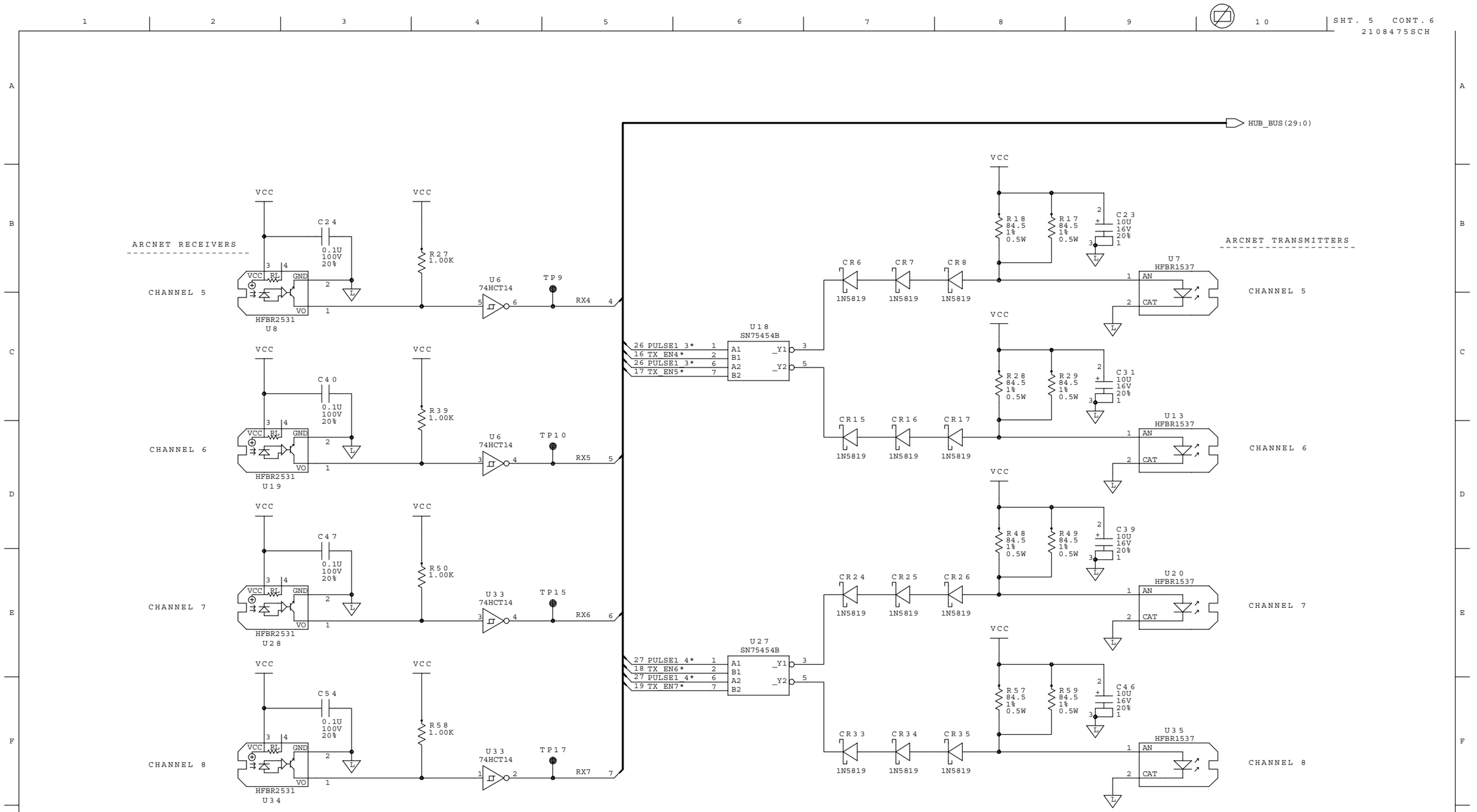

1
2
3
4
5
6
7
8
9
10
SHT. 2 CONT. 3
2108475SCH
A
B
C
D
E
F
H
FIBER OPTIC TRANSMITTERS
AND RECEIVERS
F1
FIBER_RCV(11:0)
FIBER_OPTIC_INPUTS
FIBER_OPTIC_OUTPUTS
FIBER_XMIT(11:0)
HUB_BUS(29:0)
SHEETS 4-6
HUB CONTROLLER
F2
HUB_BUS(29:0)
SHEET 7
POWER(14:0)
BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub
BLOCK SHT 1 OF 2
REV 1 PCN
DESCRIPTION
MADE BY
DATE
APPR BY
DATE
REV 2 PCN
DESCRIPTION
MADE BY
DATE
APPR BY
DATE
MADE schwarz_c
DATE 27/06/94
CHECK
DATE
APPR
DATE
OTHER
DATE
GE MEDICAL SYSTEMS
Milwaukee, WI USA
DESIGN TITLE ARCNET HUB
FIRST MADE FOR ADVANTX II
DRAWING NO.
2108475SCH
REV
0
SIZE
B
SHT./CONT. ON
2/3



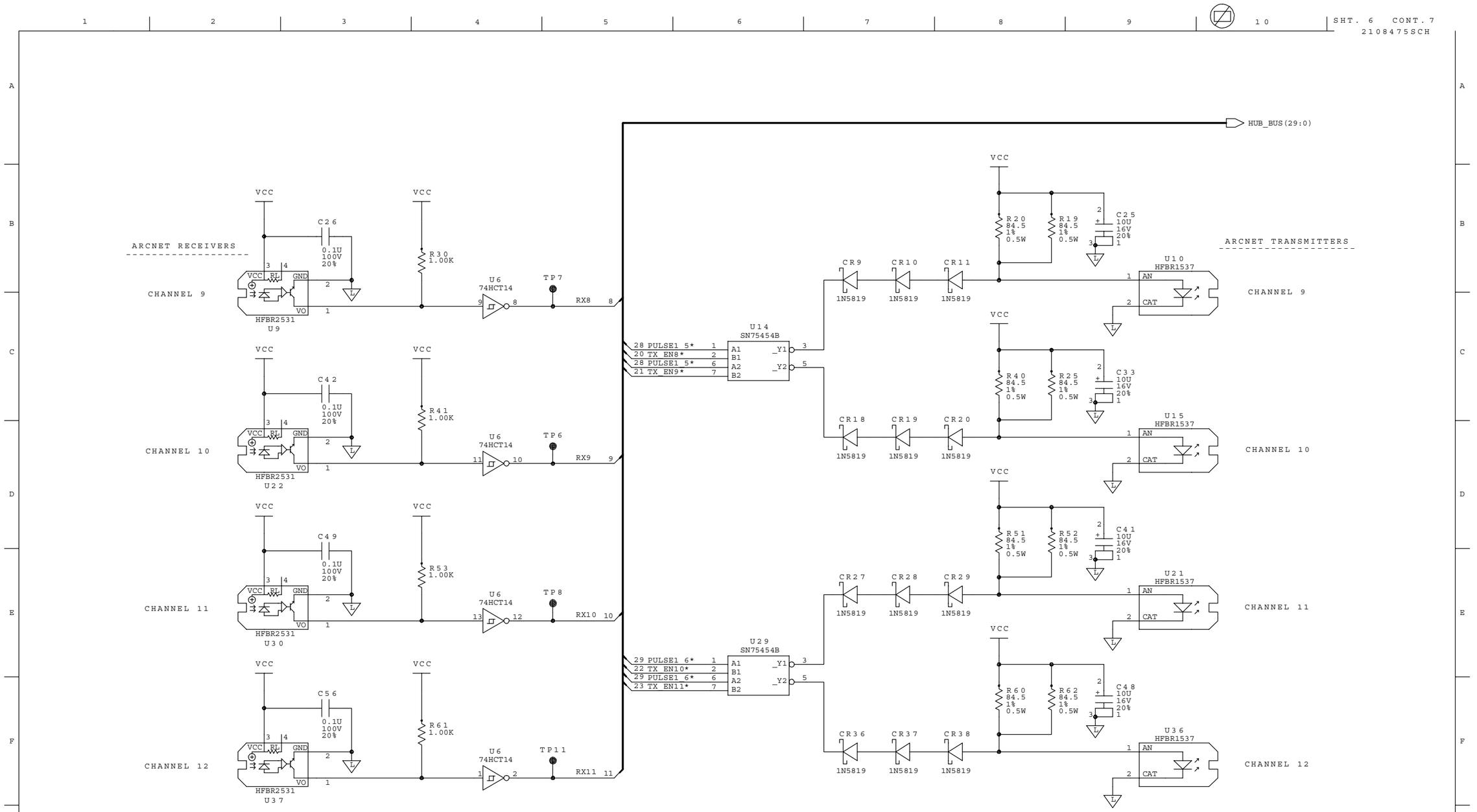
BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub				BLOCK SHT 2 OF 2	
REV 1 PCN	DESCRIPTION	MADE schwarz_c	DATE 27/06/94	GE MEDICAL SYSTEMS	DESIGN TITLE ARCNET HUB
MADE BY	DATE APPR BY DATE	CHECK	DATE	Milwaukee, WI USA	FIRST MADE FOR ADVANTX II
REV 2 PCN	DESCRIPTION	APPR	DATE		DRAWING NO. 2108475SCH / REV 0 / SIZE B / SHT./CONT. ON 3/4
MADE BY	DATE APPR BY DATE	OTHER	DATE		



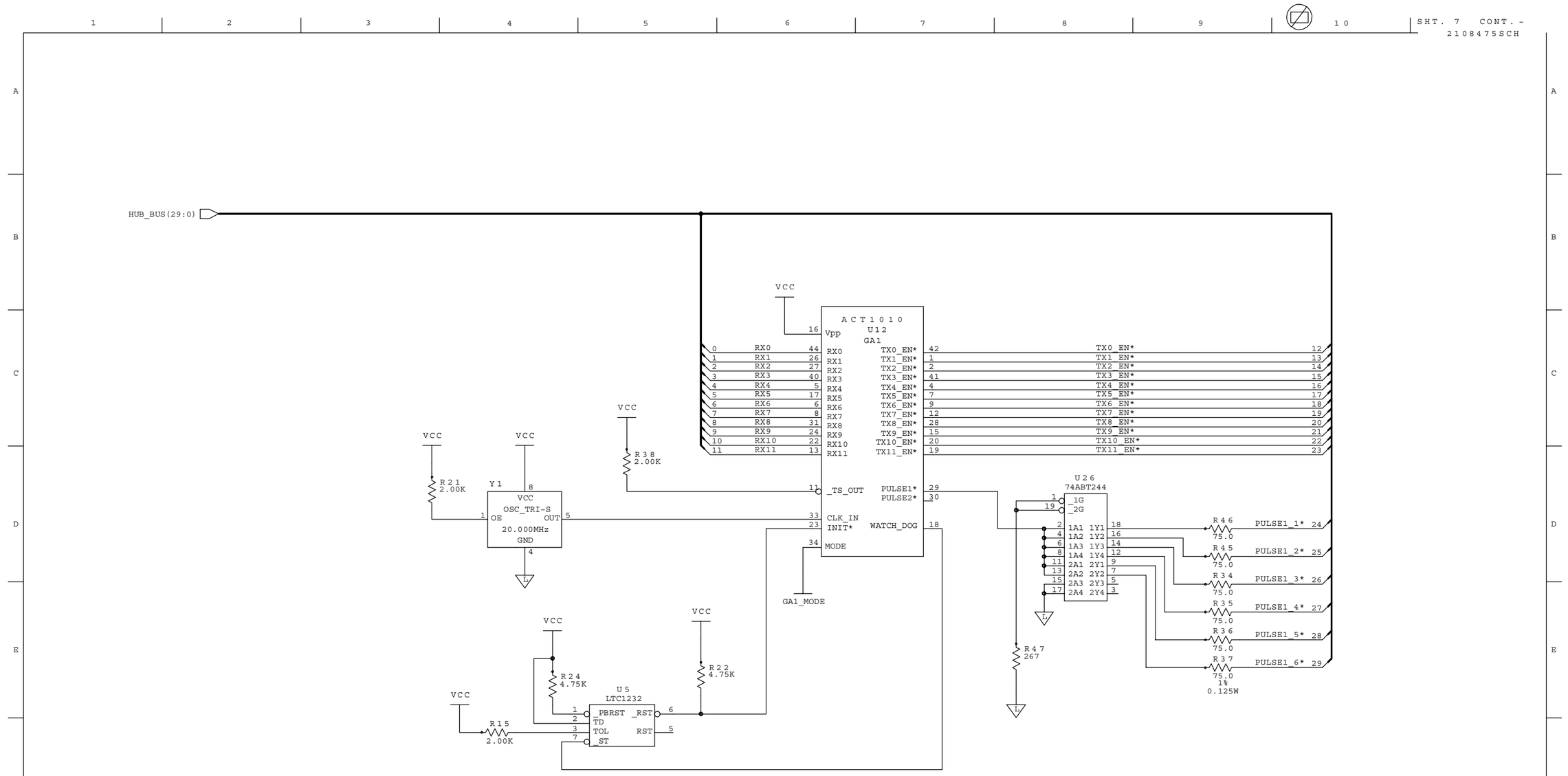
BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub/fiber_xcvrs			BLOCK SHT 1 OF 3
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE schwarz_c DATE 27/06/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ARCNET HUB FIRST MADE FOR ADVANTX II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108475SCH / REV 0 / SIZE B / SHT./CONT. ON 4/5



BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub/fiber_xcvrs				BLOCK SHT 2 OF 3	
REV 1 PCN	DESCRIPTION	MADE schwarz_c	DATE 27/06/94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ARCNET HUB FIRST MADE FOR ADVANTX II
MADE BY	DATE APPR BY DATE	CHECK	DATE		
REV 2 PCN	DESCRIPTION	APPR	DATE	DRAWING NO. 2108475SCH	REV 0 / SIZE B / SHT./CONT. ON 5/6
MADE BY	DATE APPR BY DATE	OTHER	DATE		

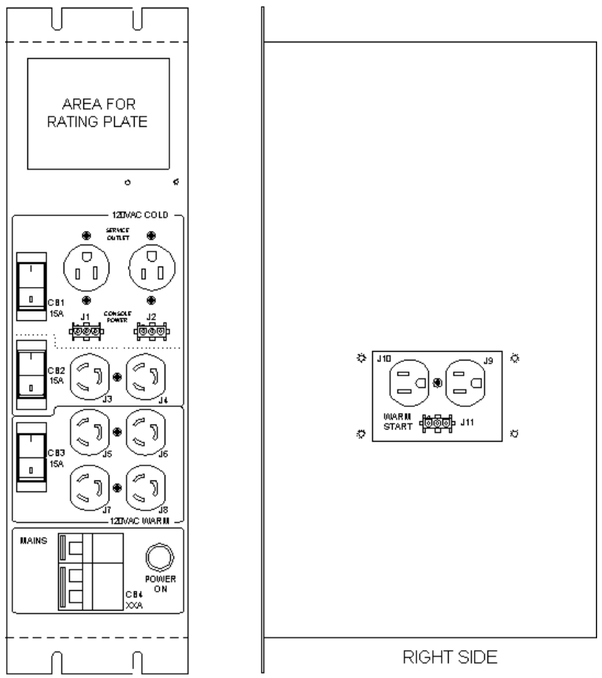


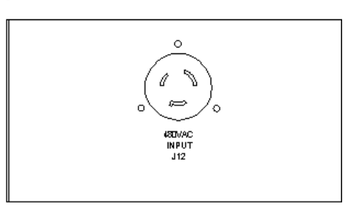
BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub/fiber_xcvrs				BLOCK SHT 3 OF 3	
REV 1 PCN	DESCRIPTION	MADE schwarz_c	DATE 27/06/94	GE MEDICAL SYSTEMS	DESIGN TITLE ARCNET HUB
MADE BY	DATE APPR BY DATE	CHECK	DATE	Milwaukee, WI USA	FIRST MADE FOR ADVANTX II
REV 2 PCN	DESCRIPTION	APPR	DATE	DRAWING NO. 2108475SCH	REV 0 / SIZE B / SHT./CONT. ON 6/7
MADE BY	DATE APPR BY DATE	OTHER	DATE		



BLOCK PATHNAME /user/advantx_ii/hub_ASM.cab/hub_pwb/arcnet_hub/hub_controller			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE schwarz_c DATE 27/06/94 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ARCNET HUB FIRST MADE FOR ADVANTX II
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2108475SCH · REV 0 · SIZE B · SHT./CONT. ON 7/-

SECTION 12
SKL A4, 2192776 (AC DISTRIBUTION)





SHT. 1 CONT. –
2192776SCH

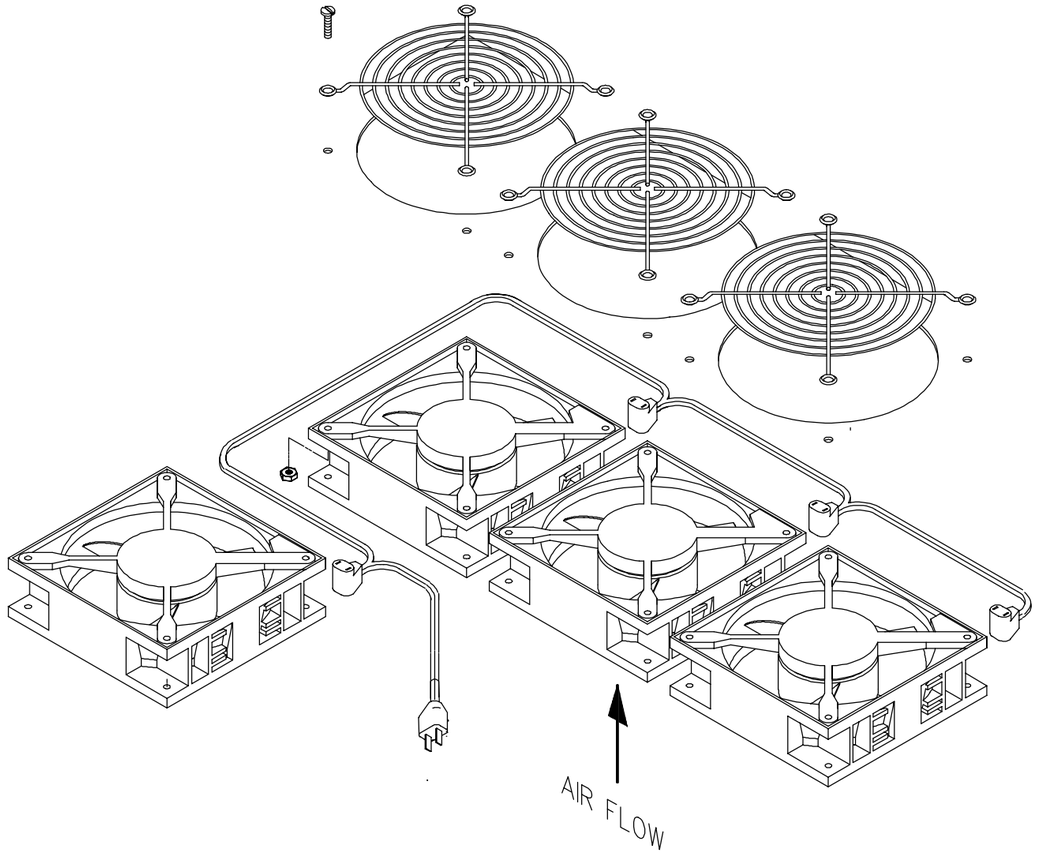
DS1
POWER ON
1/4 A
CB1 15A
CB2 15A
RMT TRIP
480VAC IN
J12
L1
L2
GND
CB4 15A
190C
A2 FILTER
A1 TAP SWITCH REGULATOR
J1
J2
K1
TAPS
T1
J11
24V COLD
WARM START*
N.C.
WARM START
D1
CB3 15A
J9
J10
SERVICE OUTLET
CONSOLE POWER
CONSOLE POWER
120VAC COLD
J3
J4
J5
J6
J7
J8
120VAC WARM
SKL A4
SYSTEM CABINET PDU

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2192776.ILF (INTERLEAF 5.0)

REV 1 PCN: 209064 DESCRIPTION: CHANGED PINOUTS OF J1 AND J2. MADE BY: DAVID D. VOIGHT DATE: 99JAN05 APPR BY: DAVID D. VOIGHT DATE: 99JAN05	MADE: DAVID D. VOIGHT DATE: 98OCT12 CHECK: DATE:	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: SYSTEM CABINET POWER DISTRIBUTION UNIT FIRST MADE FOR: EAGLE1
REV 2 PCN: DESCRIPTION: MADE BY: DATE: APPR BY: DATE:	APPR: *DAVID D. VOIGHT* DATE: *98NOV25* OTHER: DATE:		DRAWING NO. 2192776SCH / REV 1 / SIZE B / SHT. / CONT. ON 1 / –

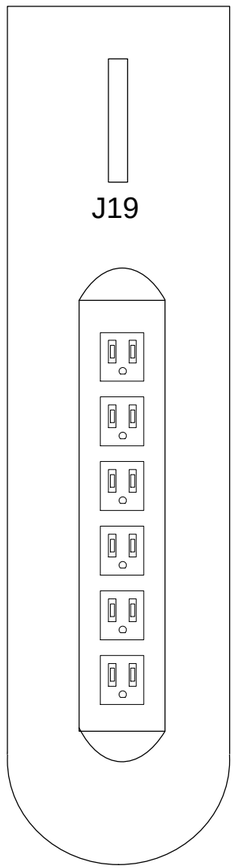
SECTION 13
SKL A5 (CABINET FANS)

See 2190397SCH for connections.



SECTION 14
SKL A6 (POWER STRIP PANEL)

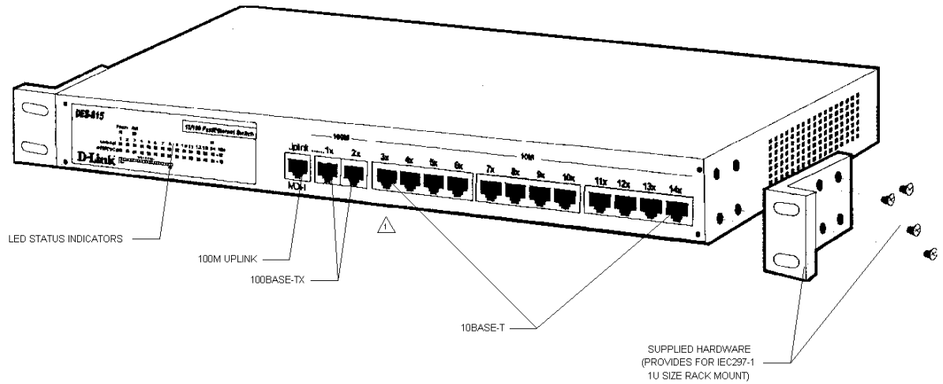
No Schematic available



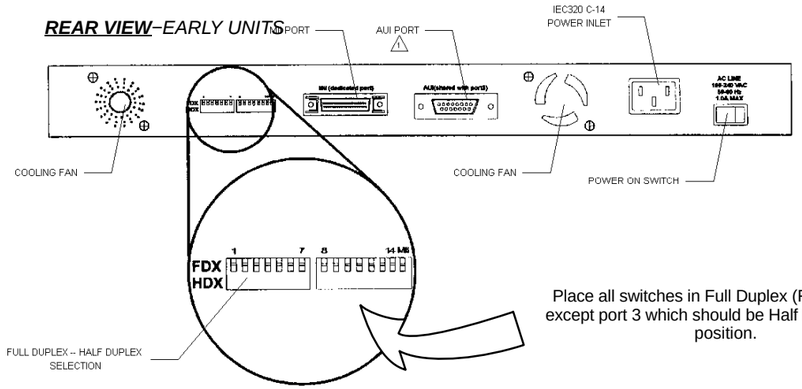
SECTION 15
ETHERNET HUBS

15-1 DES−815: (SKL A7)

SCHEMATIC NOT AVAILABLE

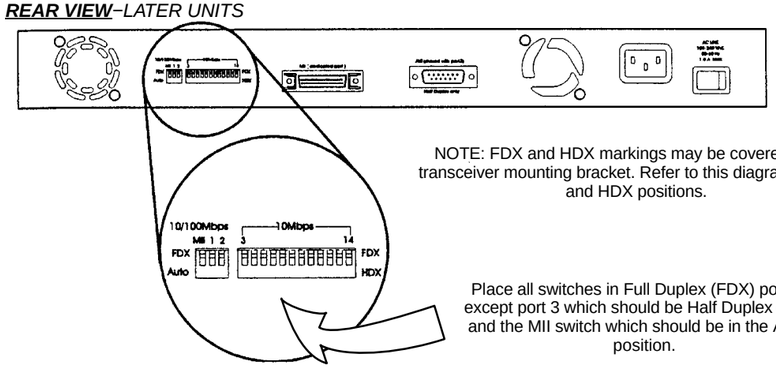


REAR VIEW−*EARLY UNITS*



Place all switches in Full Duplex (FDX) position except port 3 which should be Half Duplex (HDX) position.

REAR VIEW−*LATER UNITS*



NOTE: FDX and HDX markings may be covered by the transceiver mounting bracket. Refer to this diagram for FDX and HDX positions.

Place all switches in Full Duplex (FDX) position except port 3 which should be Half Duplex (HDX) and the MII switch which should be in the AUTO position.

15-1-1 Indicators

Power: illuminated GREEN when power is supplied

Link/Act: illuminated GREEN when the respective port is properly connected to a powered−on device, blinks GREEN when packets are being transmitted or received

FDX/Collision: illuminated GREEN when the respective port is operating in full−duplex mode, off when operating in half−duplex mode, and blinks GREEN when collisions are occurring

System Load Meter: indicates that the switch is currently operating and at what level (low to high).

AUI: illuminated GREEN when the AUI transceiver port is connected to a 10Mbps Ethernet device via an AUI transceiver.

15-1-2 SWITCHES

Duplex Mode: down is half−duplex, up is full duplex, and numbers correspond to port numbers

15-1-3 PORTS

10Mbps: standard RJ−45 for use with unshielded or shielded twisted−pair (UTP/STP) wiring, 10Mbps for half−duplex, and 20Mbps for full−duplex

100Mbps: standard RJ−45 for use with unshielded or shielded twisted−pair (UTP/STP) wiring, 100Mbps for half−duplex, and 200Mbps for full−duplex

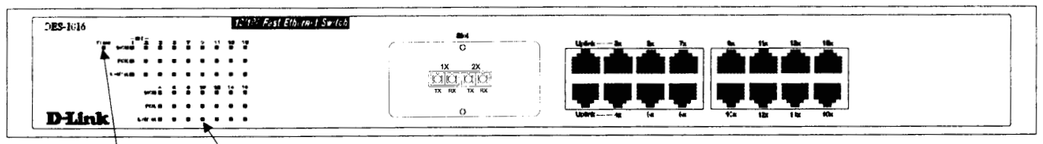
Uplink: used for higher−tier connections to more advanced switches or other network devices, renders port 1 unusable as uplink and port 1 are logically linked

AUI Transceiver: a 10Mbps port for connecting a thin or thick Ethernet segment via a transceiver, cannot be used simultaneously with port 3, port 3 has priority

MII Transceiver: a 100Mbps port for connecting a fiber optic or Fast Ethernet segment via a transceiver

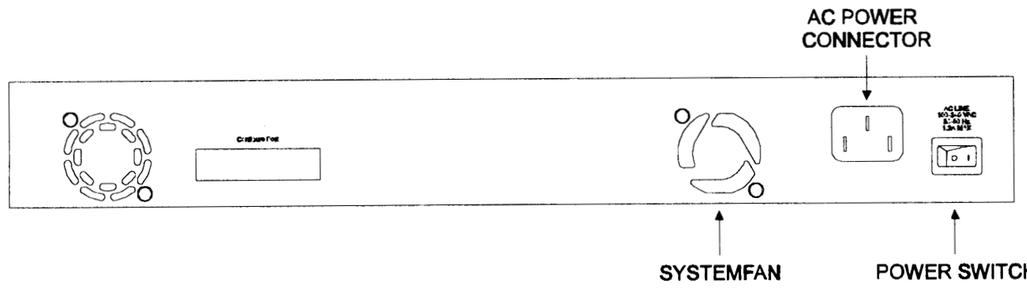
15-2 ETHERNET HUB (SKL A7, DES−1016FX: 16 RJ−45 N−WAY PORTS, 2 FX PORTS)

SCHEMATIC NOT AVAILABLE



POWER LED (Green)

STATUS LEDs:
Link/Act (Green when linked, blinks green when active)
FDX (Green when full-duplex)
100M (Green when the respective port is operating at 100Mbps)



REAR VIEW

15-2-1 INDICATORS

Power: Illuminated GREEN when power is supplied.

100M: Illuminated GREEN when a 100Mbps device is connected to a respective port or the uplink port. If a 10Mbps device is connected to a respective port or the uplink port, the LED indicator is OFF.

Link/Act: Illuminated GREEN when the respective port is securely connected (or linked) to a device. Blinks GREEN when there is a reception or transmission of data at a port.

FDX: Illuminated GREEN when a respective port is in full−duplex (FDX) mode, otherwise it is OFF for half−duplex (HDX) operation.

15-2-2 SWITCHES

Power: To turn on the system, press the switch to the “1” position; to turn off, press the switch to the “0” position. Power supply will automatically adjust to the local power source.

15-2-3 PORTS

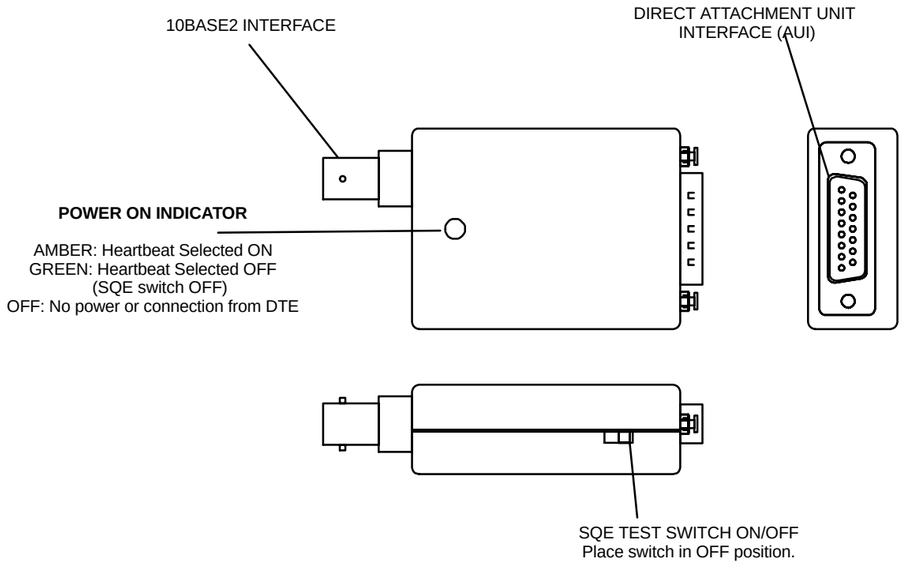
10/100 N−way: Can operate at 10/100Mbps and can auto−negotiate for full or half−duplex operation.

Uplink: To cascade 2 relative devices in 200Mbps full−duplex mode or adapt to an external interface with 2 km connectivity (100BASE−FX).

100BASE−FX: One slot (plug−in) module with 2 ports to support 100BASE−FX.

SECTION 16
SKL A7 A1 (10BASE2 AUI TRANSCEIVER, USED WITH DES−815 ONLY)

SCHEMATIC NOT AVAILABLE



SECTION 17
SKL A7 A2 (100BFX TRANSCEIVER, USED WITH DES−815 ONLY)

SCHEMATIC NOT AVAILABLE



17-1 INDICATORS

Power − illuminated when power is being received from the MII port
100MB − illuminated when operating at 100Mbps
FDX − illuminated when running at full−duplex, off when running at half−duplex
CX − illuminated when collision is occurring
TX − illuminated when data is transmitting
LINK − illuminated when LINK is sensed
RX − illuminated when data is being received

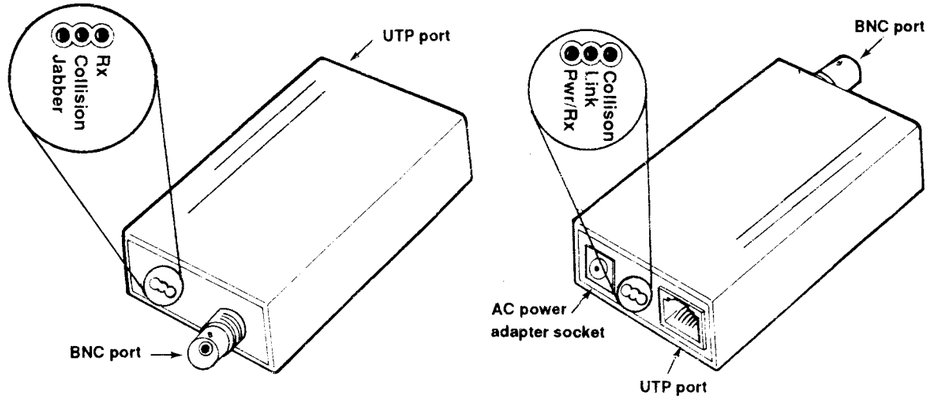
17-2 SWITCH SETTINGS

The switches in Switch Bank 1 (SW1 through SW5) should all be set to the OFF position. SW6 is not used.

The switches in Switch Bank 2 should be set as follows: SW1 − ON } Full−duplex
SW2 − ON
SW3 − OFF Enable 4B5B
SW4 − NA Not used
ON = right side depressed
OFF = left side depressed

SECTION 18
SKL A8 (MEDIA CONVERTER DE−855, USED WITH DES−1016FX ONLY)

SCHEMATIC NOT AVAILABLE



18-1 INDICATORS BNC PORT

Rx (Reception): When this LED light blinks, data is being received through the BNC port.

Collision: When this LED light blinks, data packet collisions are taking place on the thin coaxial cable segment connected to the BNC port.

Jabber: When this LED light is ON, jabber is taking place on the thin coaxial cable segment connected to the BNC port.

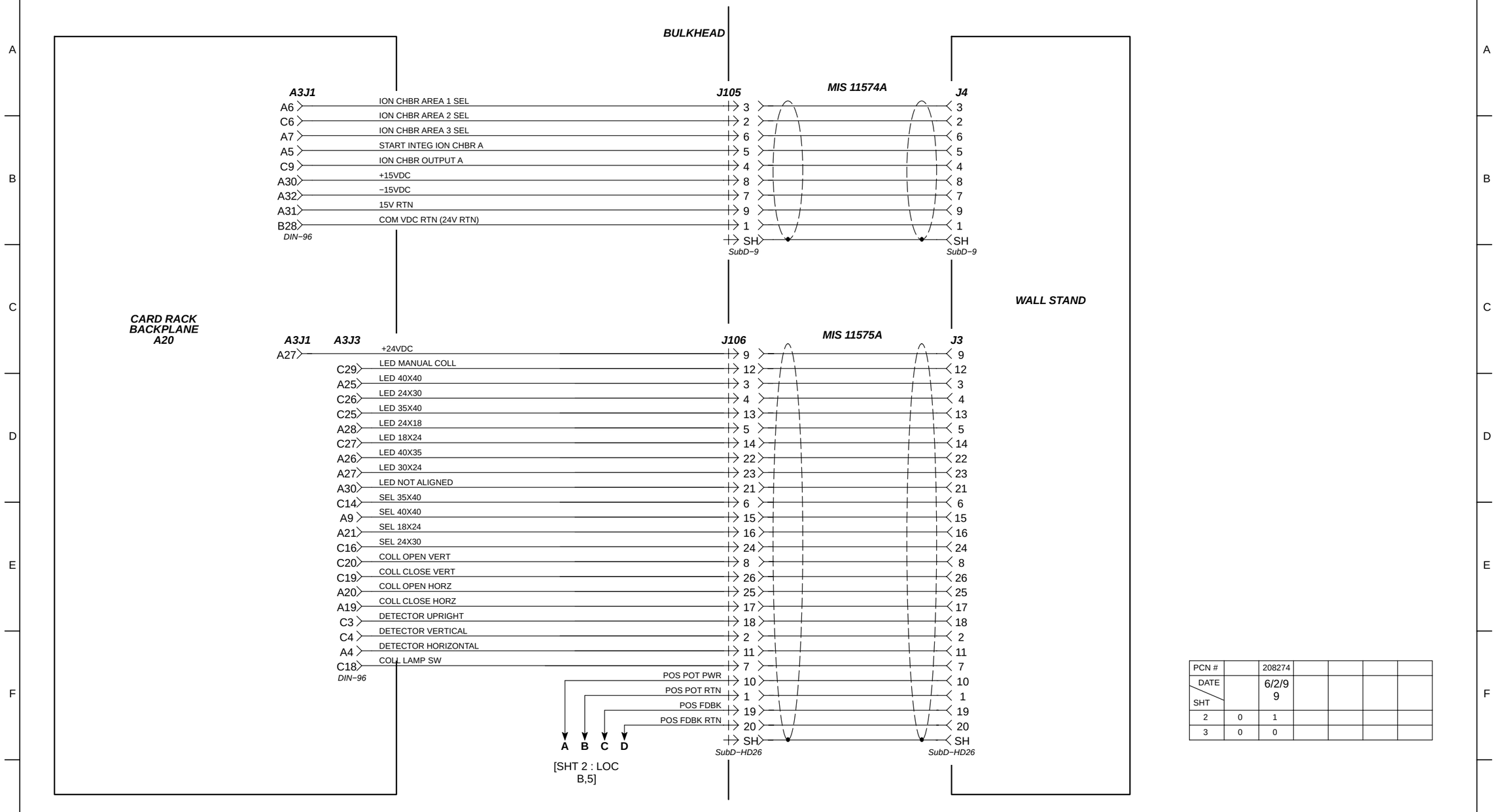
18-2 INDICATORS UTP PORT

Pwr/Rx (Power/Reception): When this LED light is continuously ON, the DE−855 is in a “power good” condition. When this LED light blinks, data is being received through the UTP port.

Link: When this LED light is ON, data link is successful between the UTP port of the DE−855 and the hub to which it is connected.

Collision: When this LED light blinks, data packet collisions are taking place on the Ethernet bus.

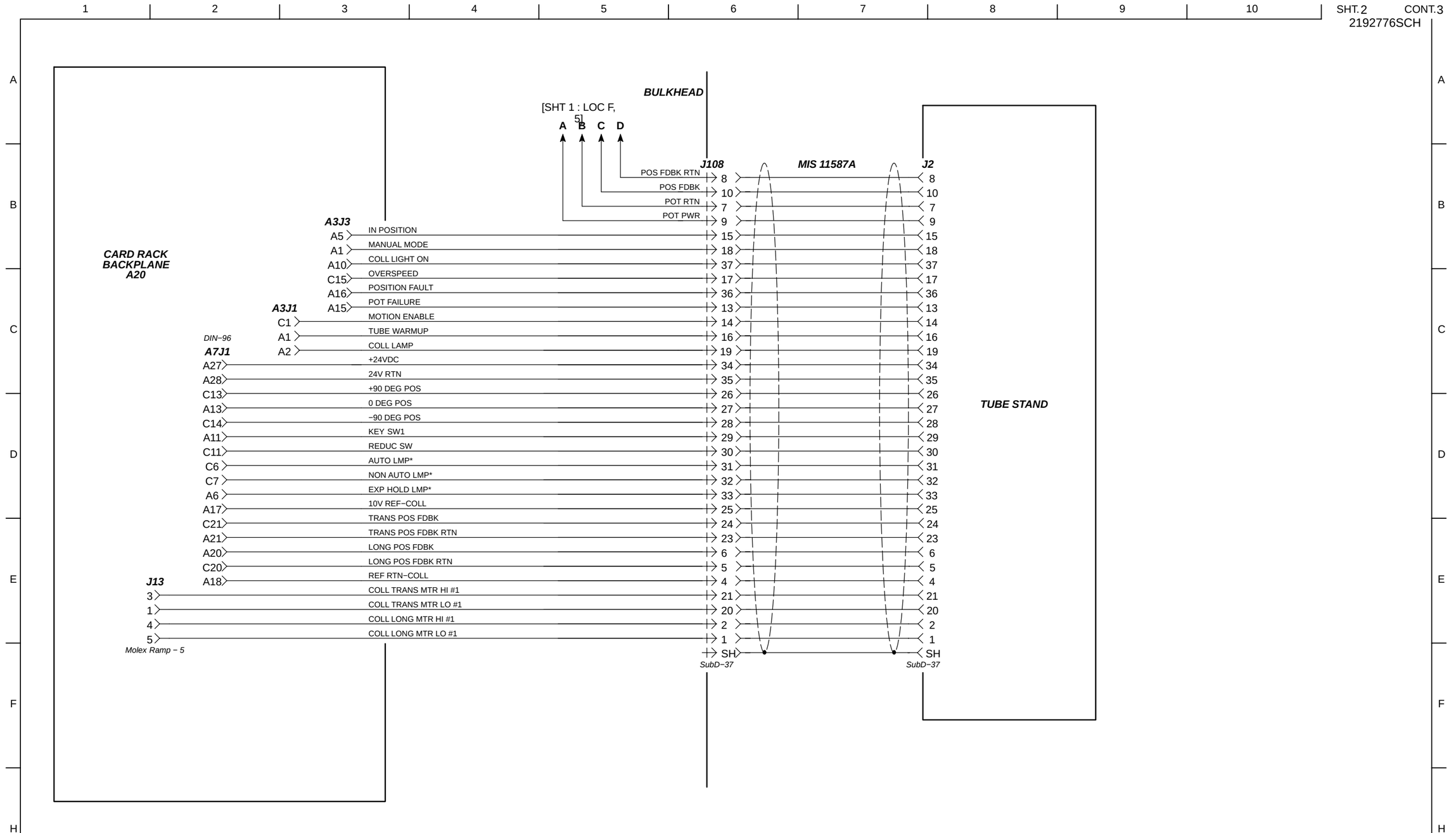
SHT. 1 CONT. 2
2192776SCH



PCN #		208274				
DATE / SHT		6/2/99				
2	0	1				
3	0	0				

PATH: XRNETAPP1/USER12/DOCSRC/SCH/2215717.ILF (INTERLEAF 5.0)

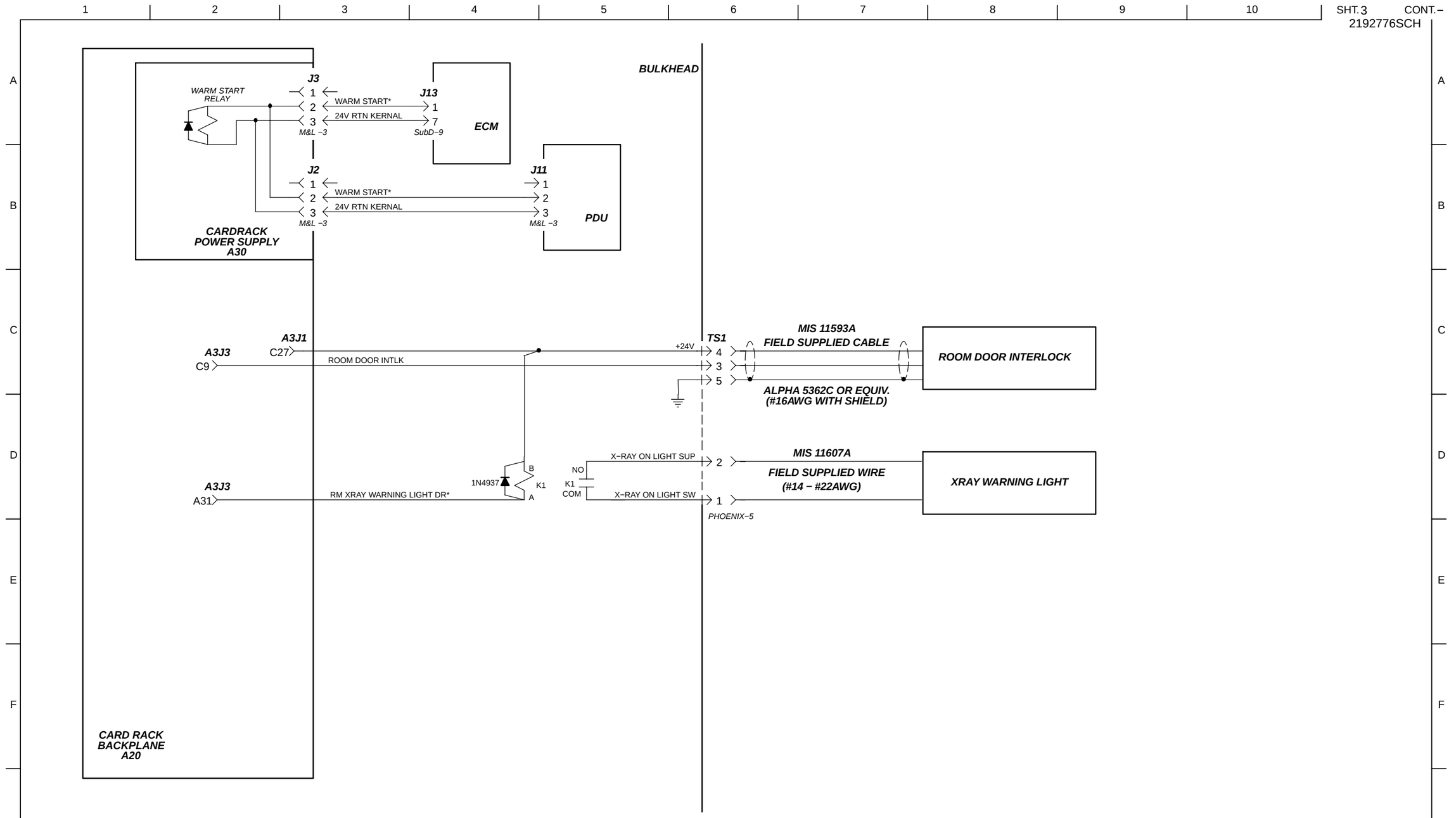
REV 1 PCN: 208274 DESCRIPTION: GENERAL CHANGES MADE BY: G. HEILERT DATE: 3JUNE99 APPR BY: DATE:	MADE: DAVID D. VOIGHT DATE: 98APR03 CHECK: DATE: APPR: DATE: OTHER: DATE:	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE SYSTEM CABINET MAIN HARNESS FIRST MADE FOR: EAGLE1
REV 2 PCN: DESCRIPTION: MADE BY: DATE: APPR BY: DATE:			DRAWING NO. 2192776SCH / REV 1 / SIZE B / SHT. / CONT. ON 1 / 2



PATH: XRNETAPP1/USER12/DOCSRC/SCH/2215717.ILF (INTERLEAF 5.0)

REV 1 PCN: 208274 DESCRIPTION: ADDED “COLL LIGHT ON” SIGNAL LINE MADE BY: G. HEILERT DATE: 3JUNE99 APPR BY: DATE:	MADE: DAVID D. VOIGHT DATE: 97JUL09 CHECK: DATE: APPR: DATE: OTHER: DATE:	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: EAGLE SYSTEM CABINET MAIN HARNESS FIRST MADE FOR: EAGLE1
REV 2 PCN: DESCRIPTION: MADE BY: DATE: APPR BY: DATE:			DRAWING NO. 2192776SCH / REV 1 / SIZE B / SHT. / CONT. ON 2 / 3

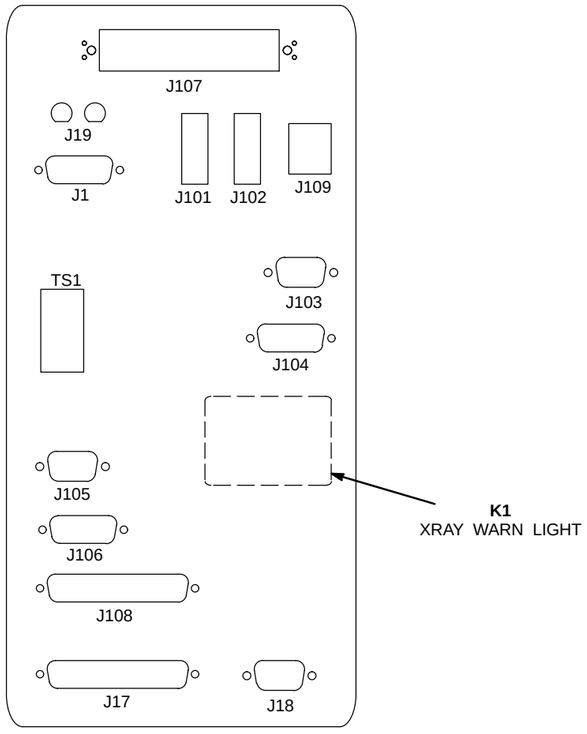
SHT. 3 CONT. –
2192776SCH



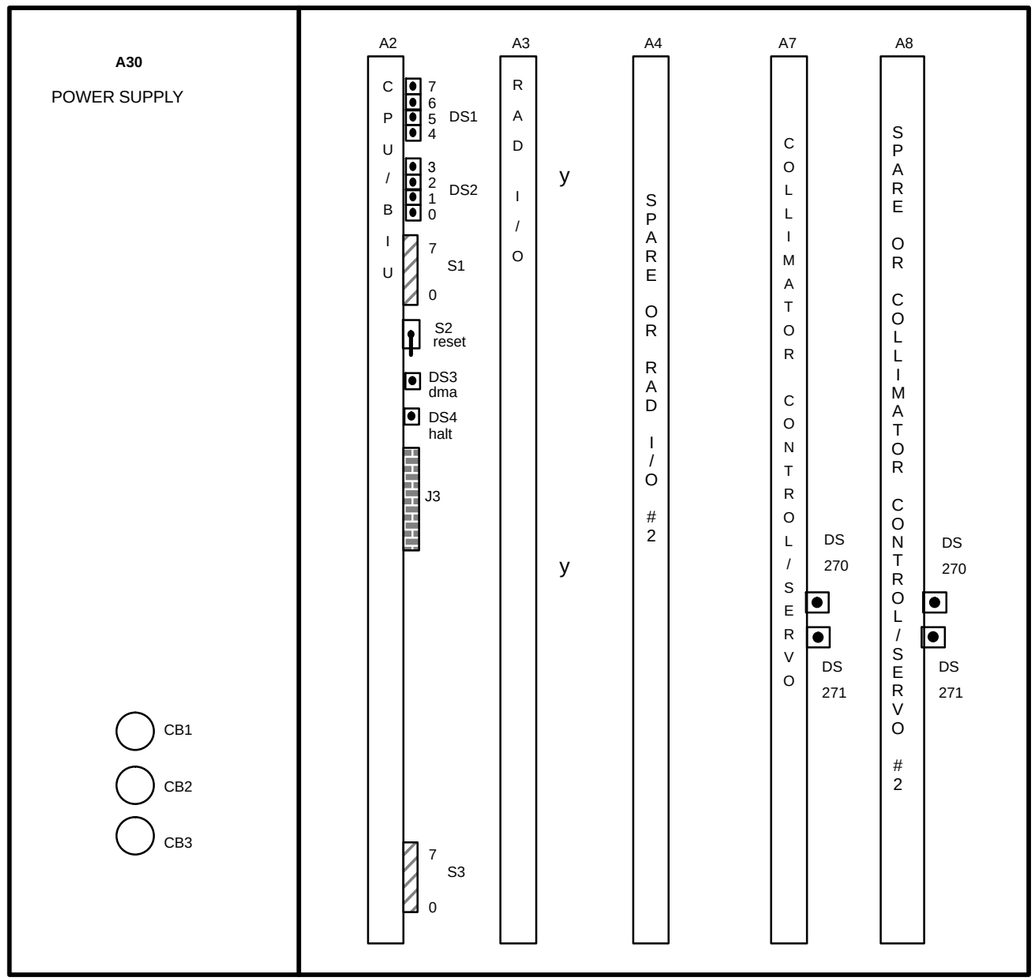
PATH: XRNETAPP1/USER12/DOCSRC/SCH/2215717.ILF (INTERLEAF 5.0)

REV 1 PCN: DESCRIPTION:	MADE: DAVID D. VOIGHT DATE: 97JUL09	GE MEDICAL SYSTEMS	DESIGN TITLE: EAGLE SYSTEM CABINET MAIN HARNESS
MADE BY: DATE: APPR BY: DATE:	CHECK: DATE:	Milwaukee, WI USA	FIRST MADE FOR: EAGLE1
REV 2 PCN: DESCRIPTION:	APPR: DATE:		DRAWING NO. 2192776SCH / REV 0 / SIZE B / SHT. / CONT. ON 3 / –
MADE BY: DATE: APPR BY: DATE:	OTHER: DATE:		

SECTION 19
SKL A25, 2215717 (CABINET BULKHEAD &MAIN HARNESS)

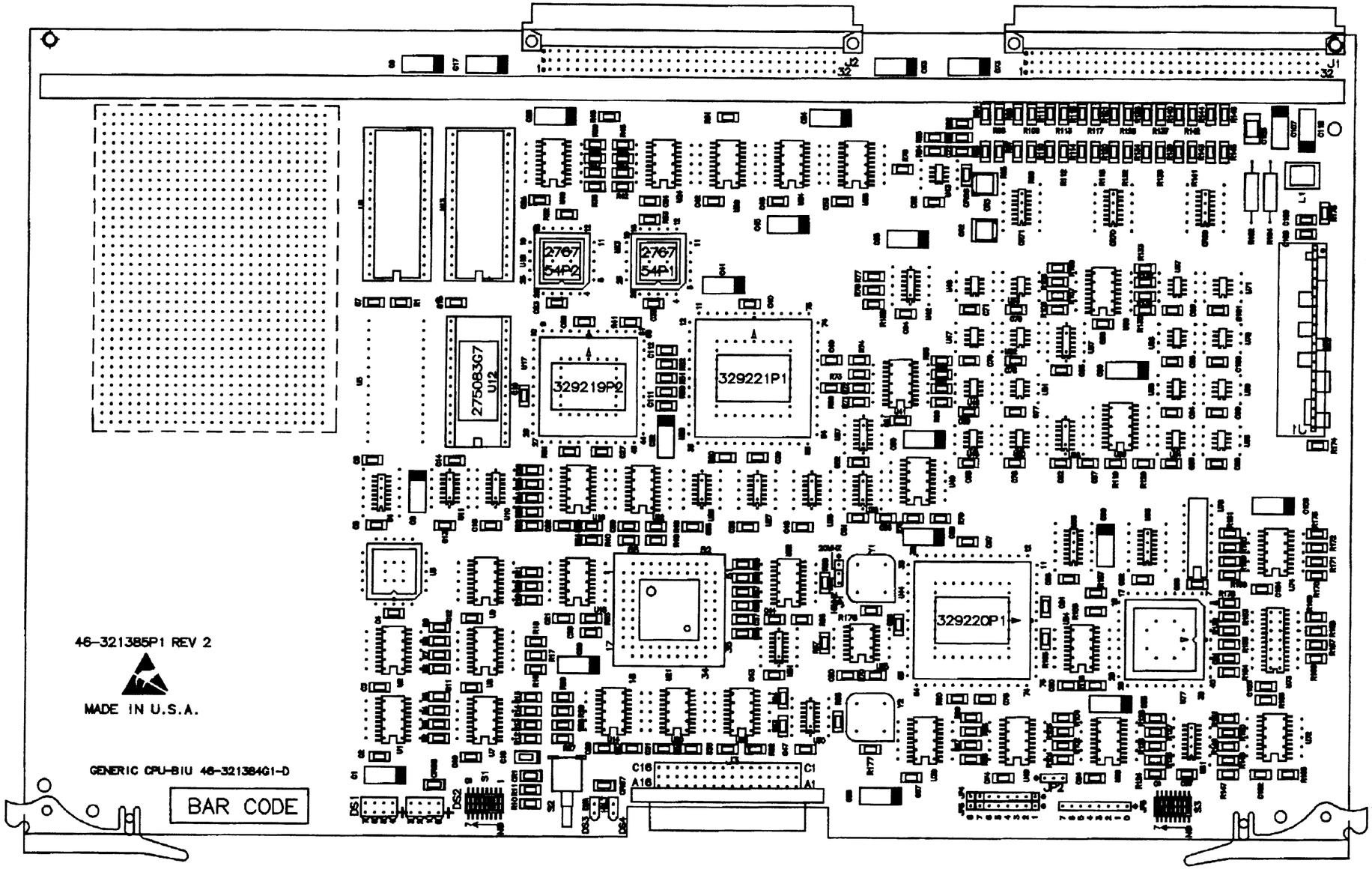


SECTION 20
SKL RPM A1 (POSITIONER ELECTRONICS)



RPM A1
POSITIONER MODULE

SECTION 21
SKL RPM A1 A2, 46-321384G4 (CPU/BIU)



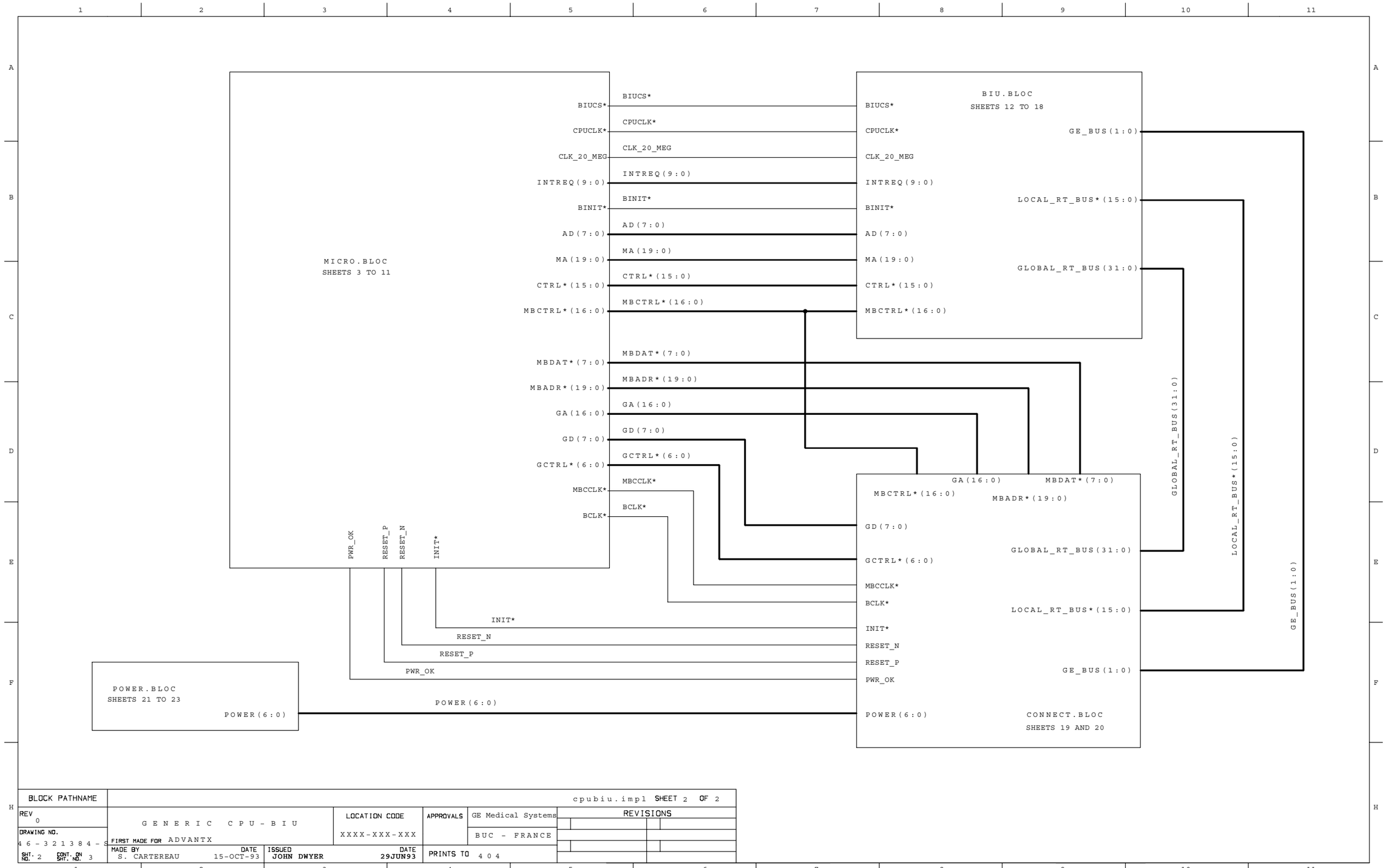
REVISION	PCN NUMBER	DATE	SIGN OFF
A	- - - - - -	03/JUN/93	
0	- - - - - -	28/JUN/93	
1	169719	28/SEP/93	
2	169751	20/DEC/93	
3	169795	27/JAN/94	

SHEET_NAME	SHT NUM	REV
CPUBIU.BOARD	2	0
MICRO	3	0
CPU (1)	4	2
CPU (2)	5	2
CTRL	6	1
RAM	7	1
MEMIT (1)	8	1
MEMIT (2)	9	0
MULTIBUS (1)	10	1
MULTIBUS (2)	11	0
BIU	12	0
DECOD	13	1
RT_BUS (1)	14	1
RT_BUS (2)	15	1
RT_BUS (3)	16	1
GE_BUS (1)	17	1
GE_BUS (2)	18	1
CONNECT (1)	19	1
CONNECT (2)	20	1
POWER (1)	21	0
POWER (2)	22	3
POWER (3)	23	1

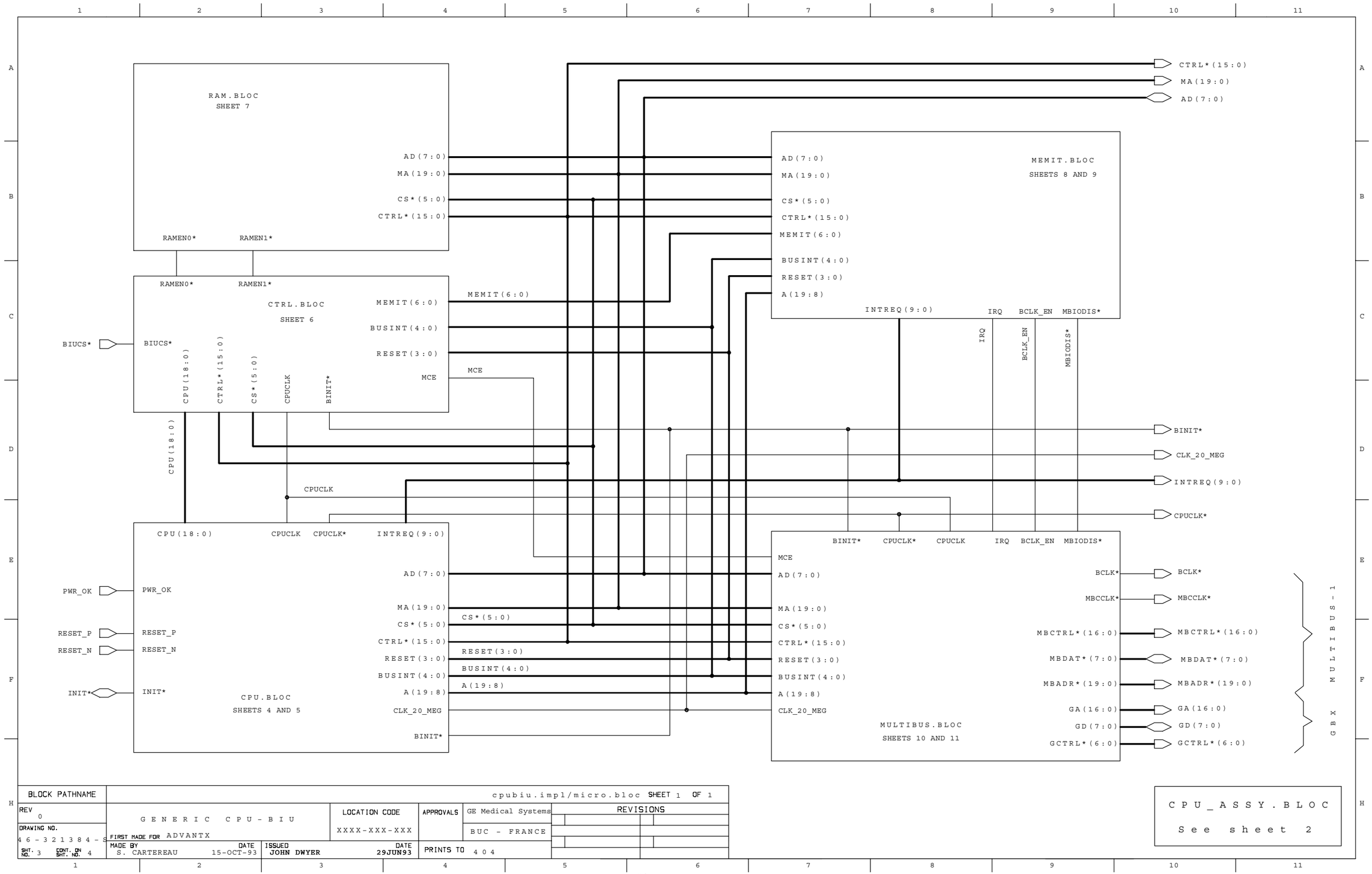
NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 46-321384G1-D, G2-B, G3-A
2. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.25W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN OHMS AT 100MHz.
3. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

BLOCK PATHNAME					cpubiu.impl SHEET 1 OF 2
REV 3	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS JWW 30JUN93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 28SEP93 PCN 169719 / 3 JWW 27JAN94 PCN 169795 / 2 GT 20DEC93 PCN 169751
SHT. NO. 1 CONT. ON SHT. NO. 2	MADE BY S. CARTEREAU DATE 14-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		



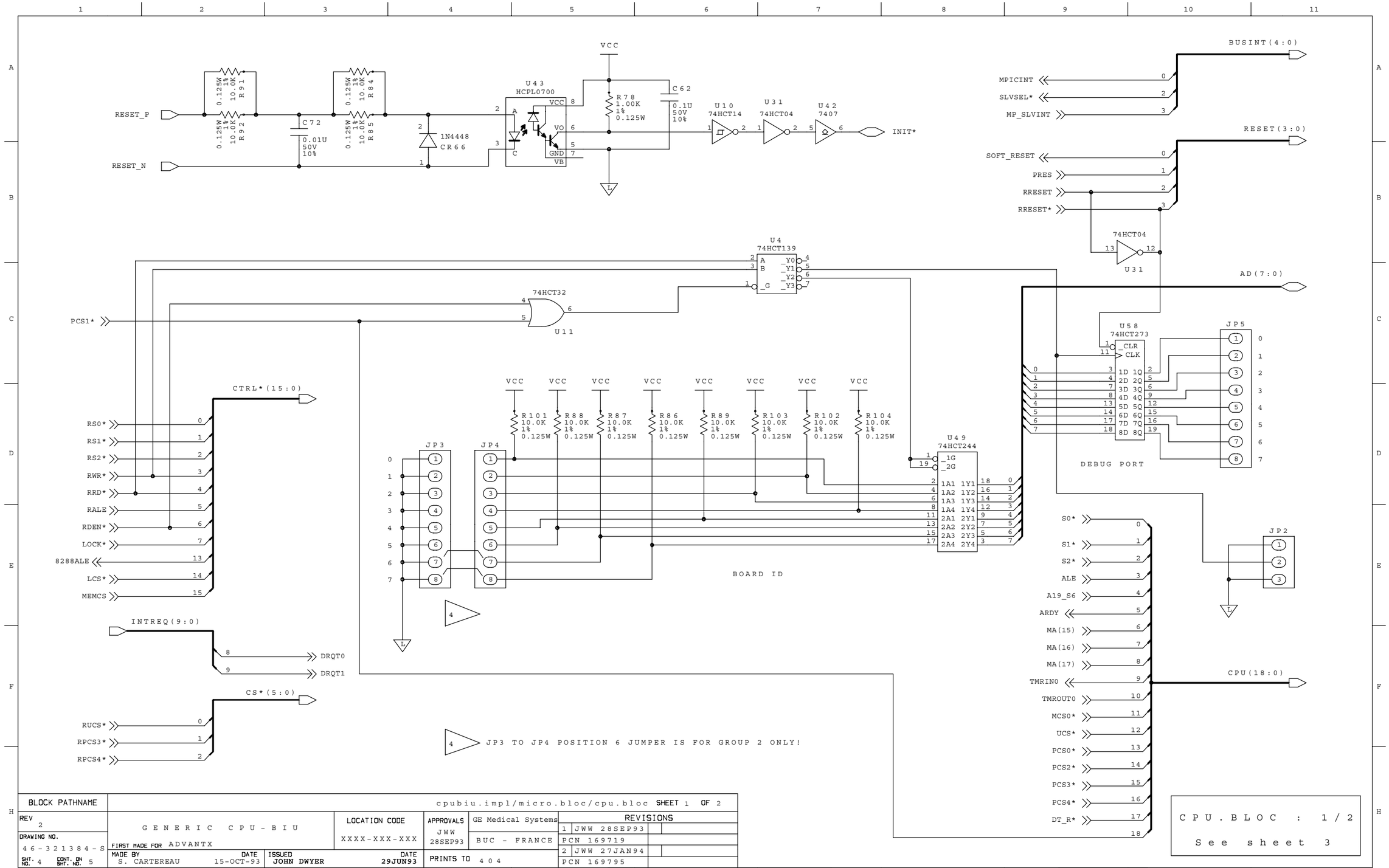
BLOCK PATHNAME				cpubiu.impl SHEET 2 OF 2	
REV 0	G E N E R I C C P U - B I U	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	
SHT. NO. 2 CONT. ON SHT. NO. 3	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		



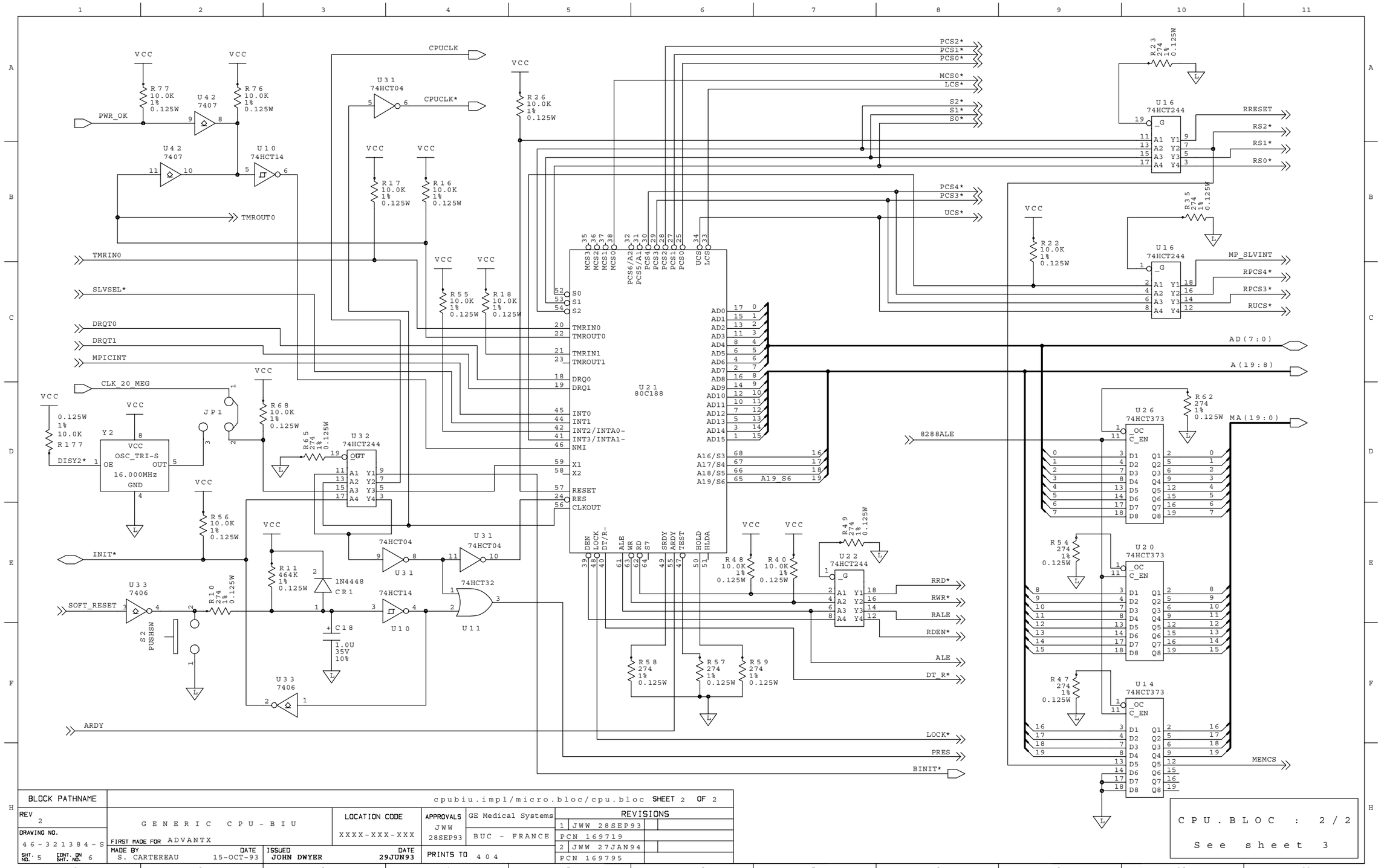
BLOCK PATHNAME	cpubiu.impl/micro.bloc SHEET 1 OF 1				
REV 0	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	
SHT. NO. 3 CONT. ON SHT. NO. 4	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

CPU_ASSY.BLOC

See sheet 2



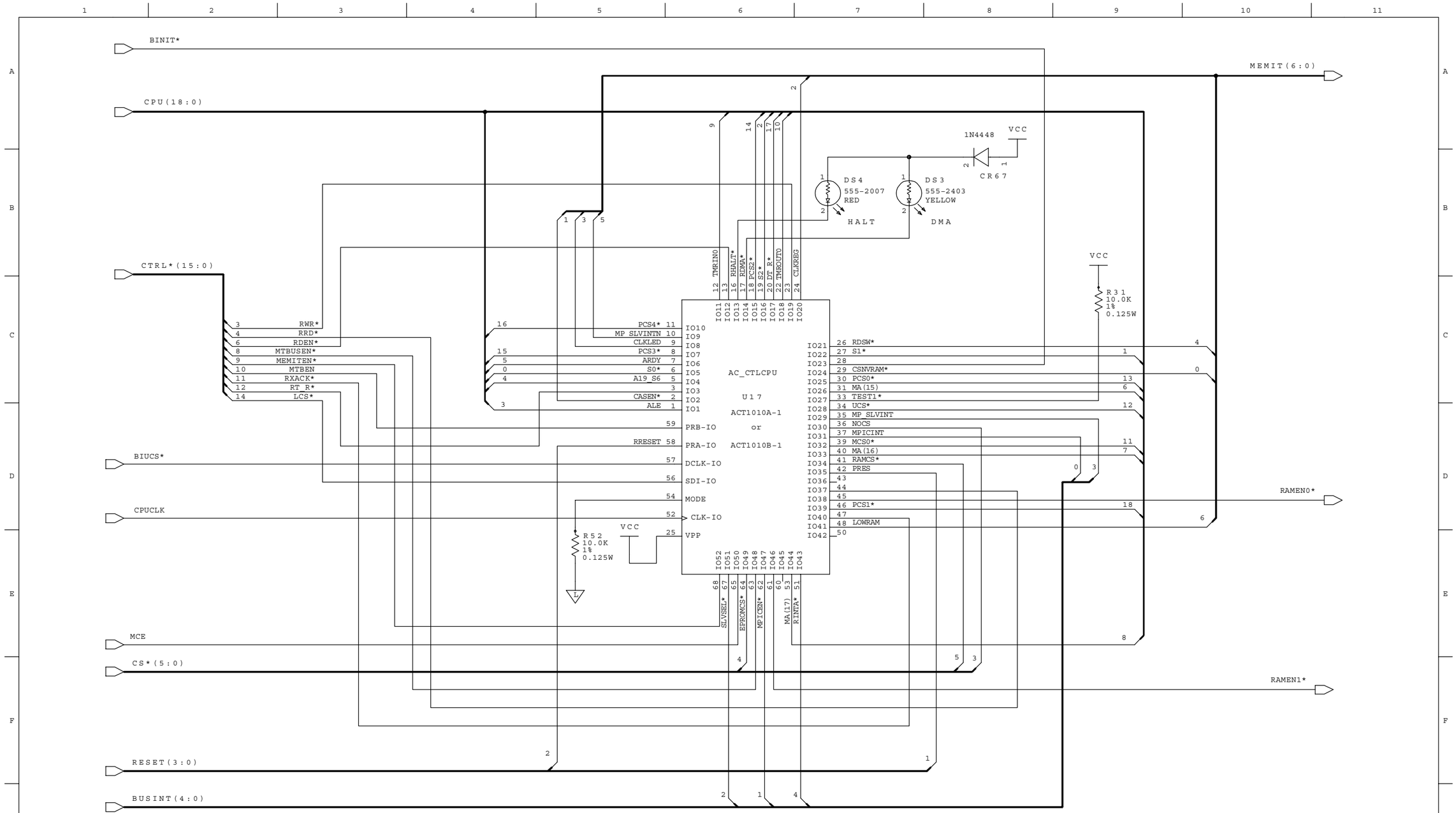
BLOCK PATHNAME	cpubiu.impl/micro.bloc/cpu.bloc SHEET 1 OF 2				
REV 2	G E N E R I C C P U - B I U	LOCATION CODE XXXX-XXX-XXX	APPROVALS JWW 28SEP93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 28SEP93 / PCN 169719 / 2 JWW 27JAN94 / PCN 169795
SHT. NO. 4 CONT. ON SHT. NO. 5	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		



BLOCK PATHNAME	cpubiu.impl/micro.bloc/cpu.bloc SHEET 2 OF 2				
REV 2	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS JWW 28SEP93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 28SEP93 / PCN 169719
SHT. NO. 5 CONT. ON SHT. NO. 6	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		2 JWW 27JAN94 / PCN 169795

CPU.BLOC : 2/2

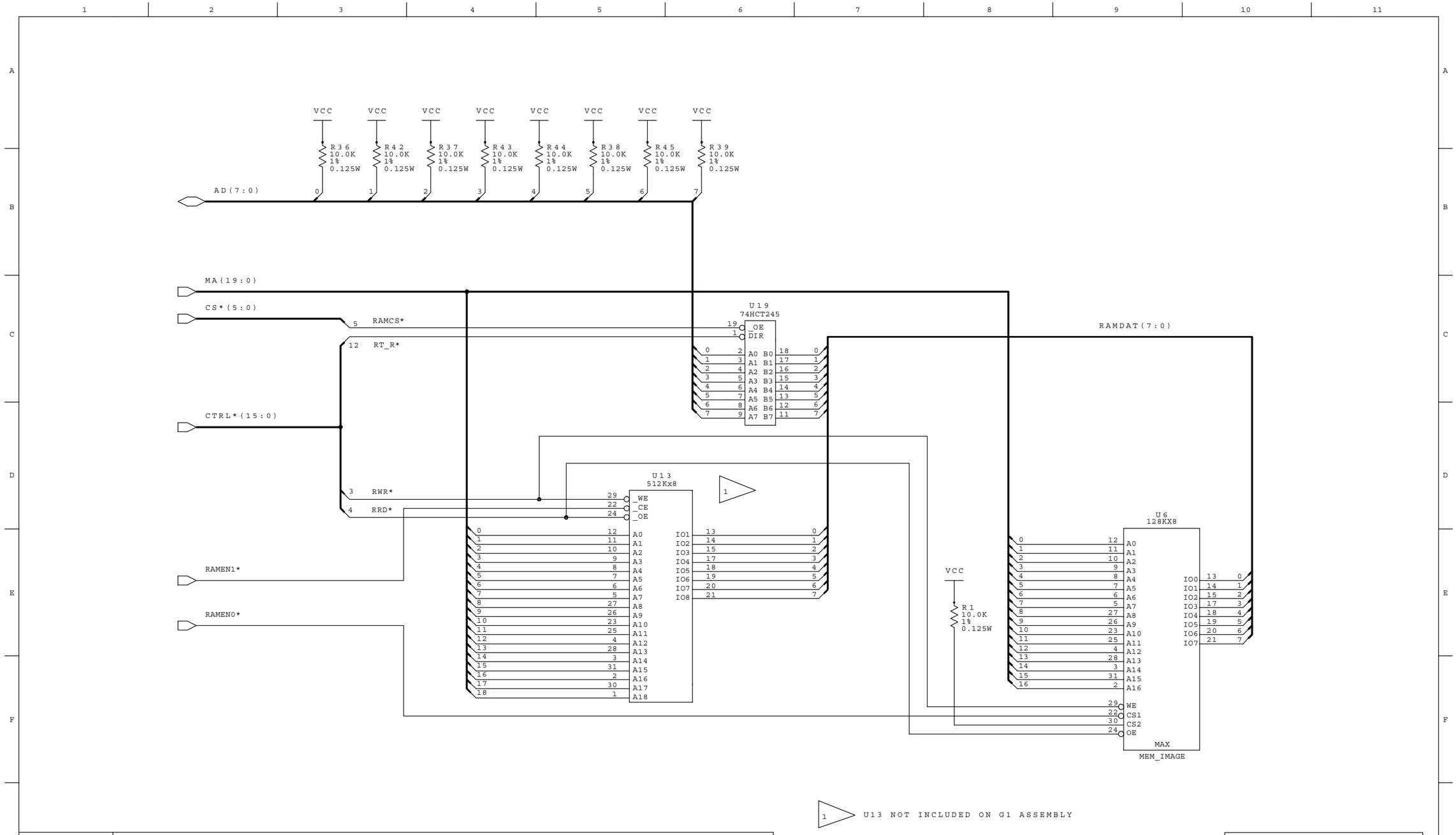
See sheet 3



BLOCK PATHNAME	cpubiu.impl/micro.bloc/ctrl.bloc SHEET 1 OF 1				
REV 1	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 GT 20DEC93
SHT. NO. 6 CONT. ON SHT. NO. 7	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		PCN 169751

CTRL.BLOC : 1/1

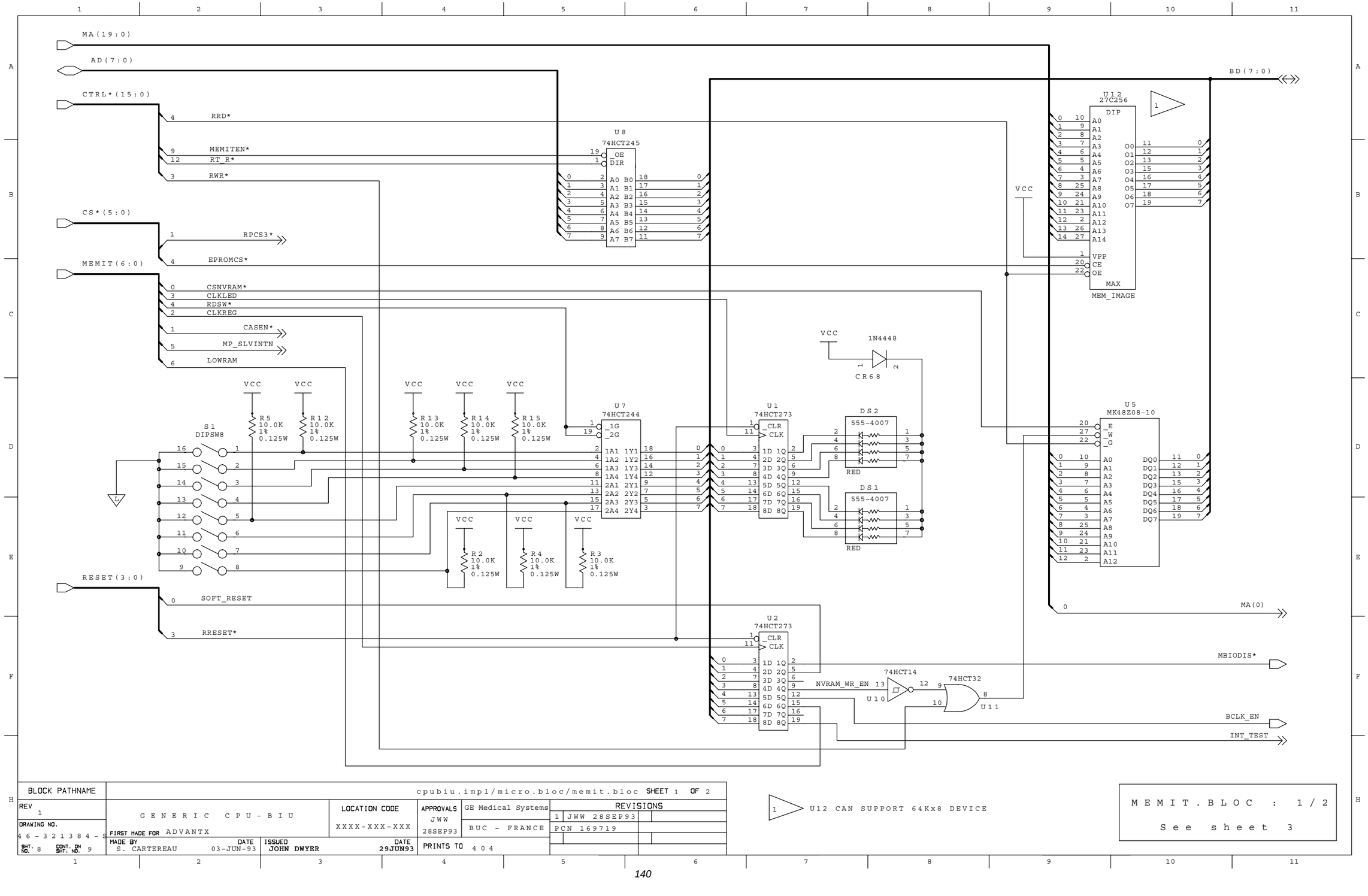
See sheet 3



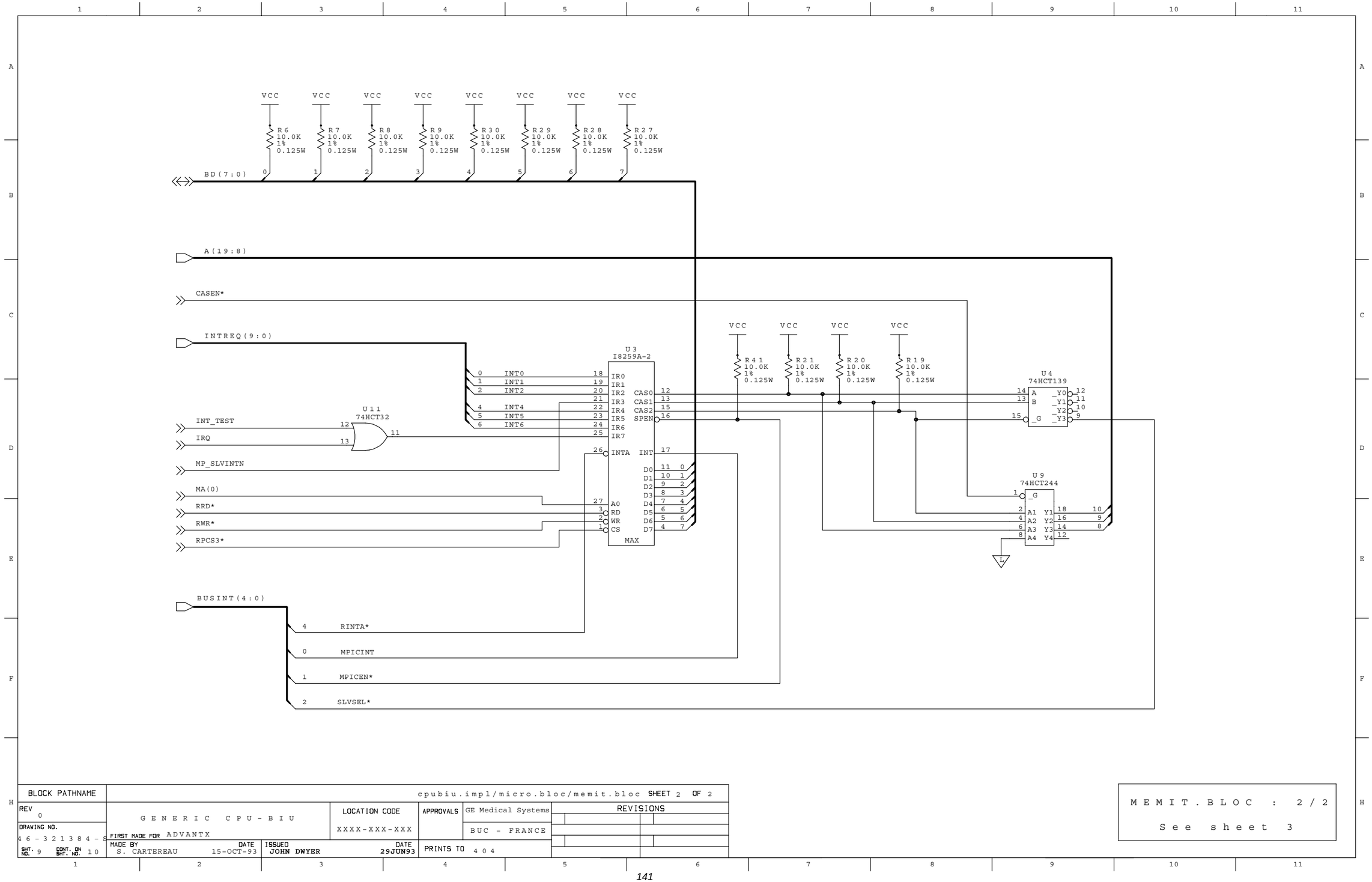
BLOCK PATHNAME	cpubiu.impl/micro.bloc/ram.bloc SHEET 1 OF 1				
REV 1	G E N E R I C C P U - B I U	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 GT 20DEC93 / PCN 169751
SHT. NO. 7 CONT. ON SHT. NO. 8	MADE BY S. CARTEREAU DATE 03-JUN-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

R A M . B L O C : 1 / 1

S e e s h e e t 3



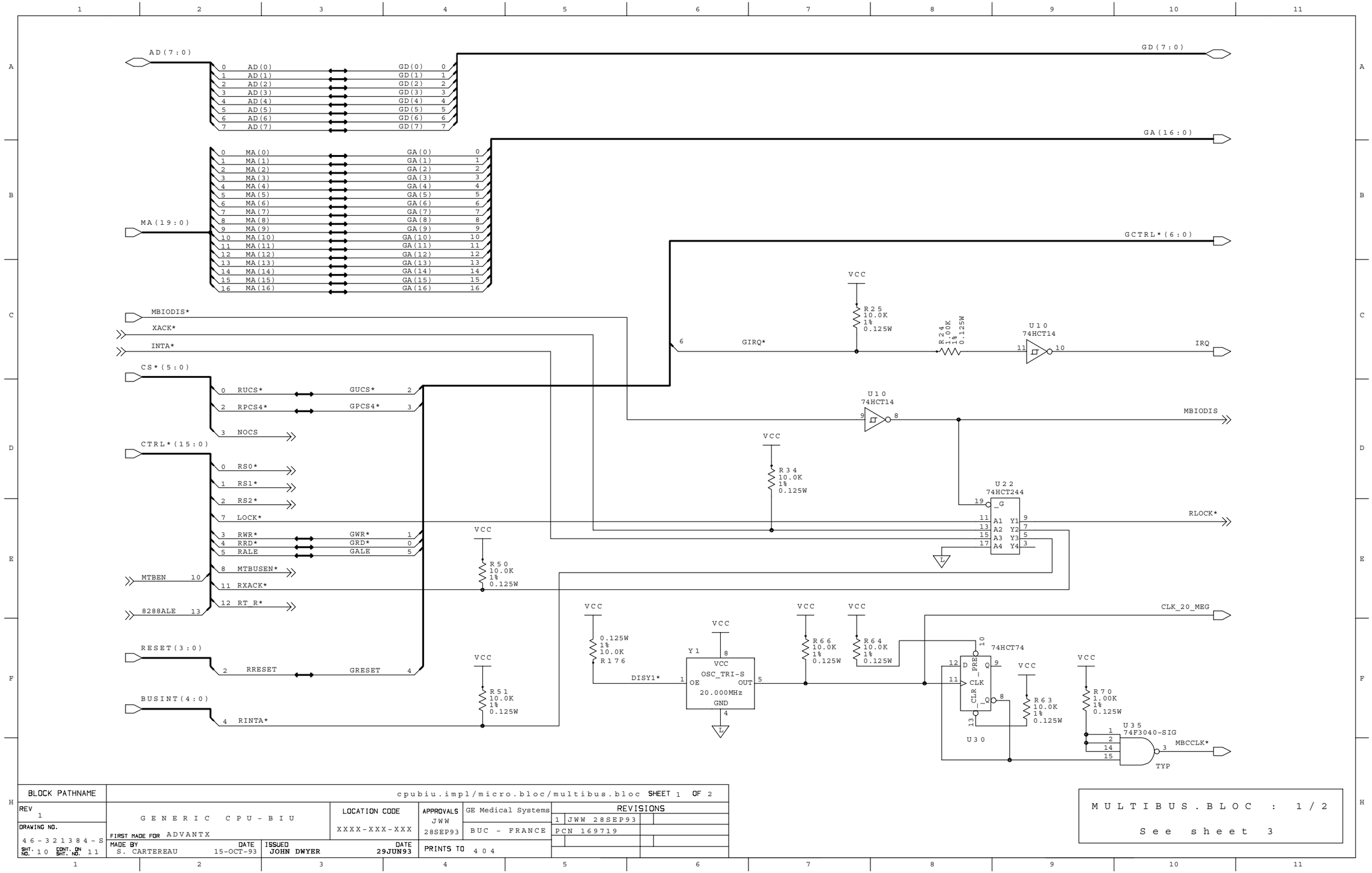
BLOCK PATHNAME	cpubiu.impl/micro.bloc/memit.bloc SHEET 1 OF 2				
REV 1	G E N E R I C C P U - B I U	LOCATION CODE XXXX-XXX-XXX	APPROVALS JWW 28SEP93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 28SEP93
SHT. NO. 8 CONT. ON SHT. NO. 9	MADE BY S. CARTEREAU DATE 03-JUN-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		PCN 169719



BLOCK PATHNAME	cpubiu.impl/micro.bloc/memit.bloc SHEET 2 OF 2				
REV 0	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	
SHT. NO. 9 CONT. ON SHT. NO. 10	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

MEMIT.BLOC : 2/2

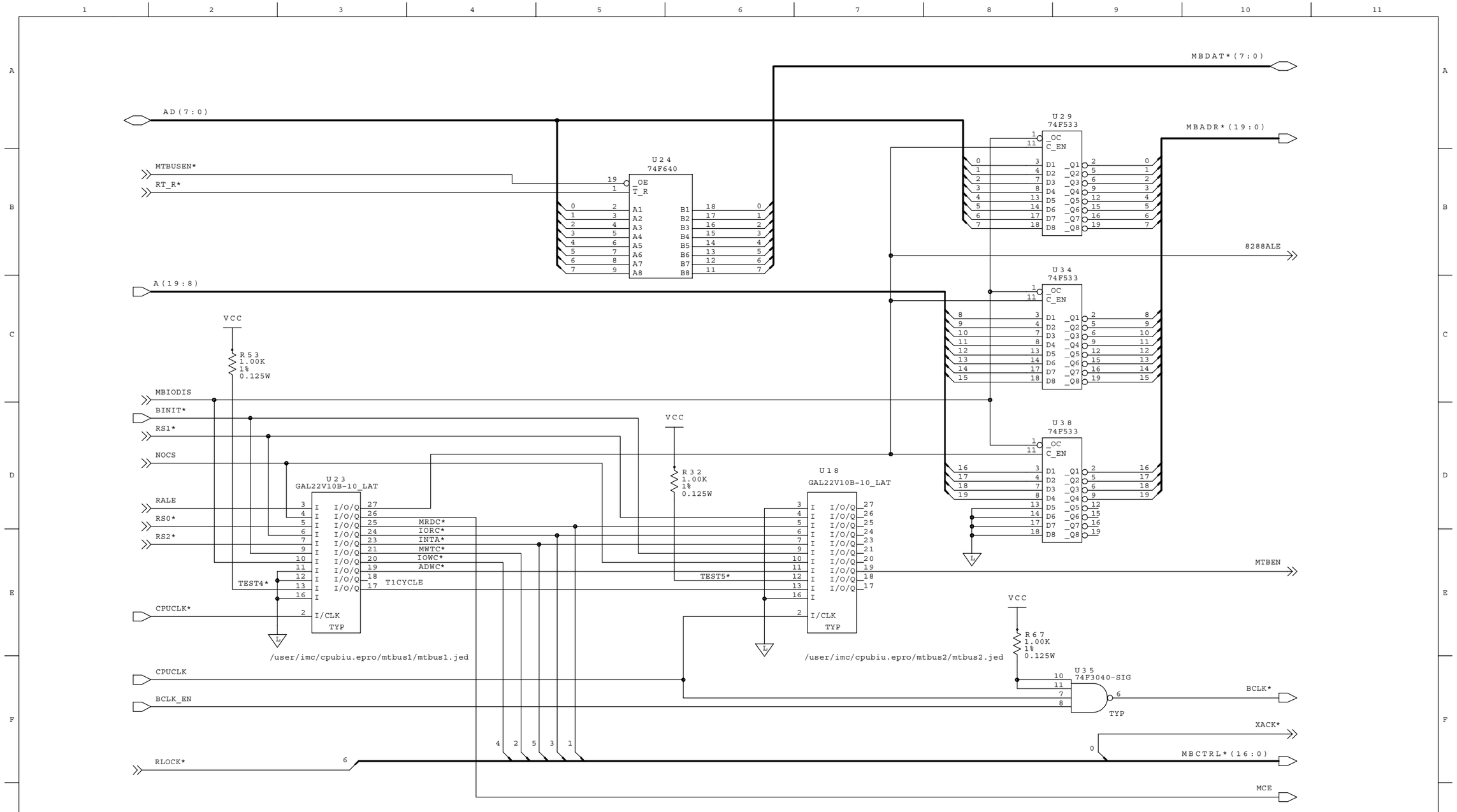
See sheet 3



BLOCK PATHNAME	cpubiu.impl/micro.bloc/multibus.bloc SHEET 1 OF 2				
REV 1	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS JWW 28SEP93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 28SEP93
SHT. NO. 10 CONT. ON SHT. NO. 11	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		PCN 169719

MULTIBUS.BLOC : 1/2

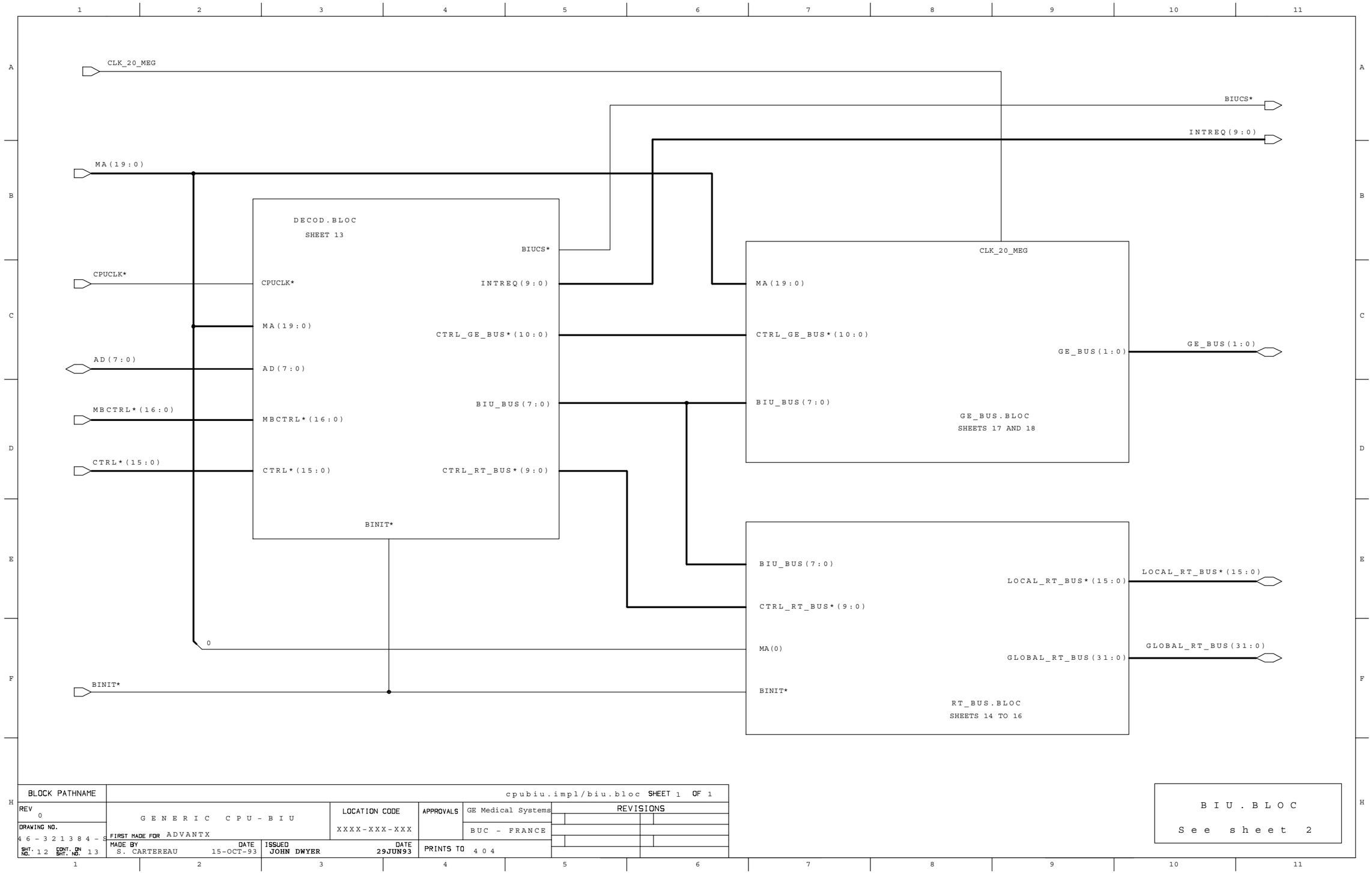
See sheet 3

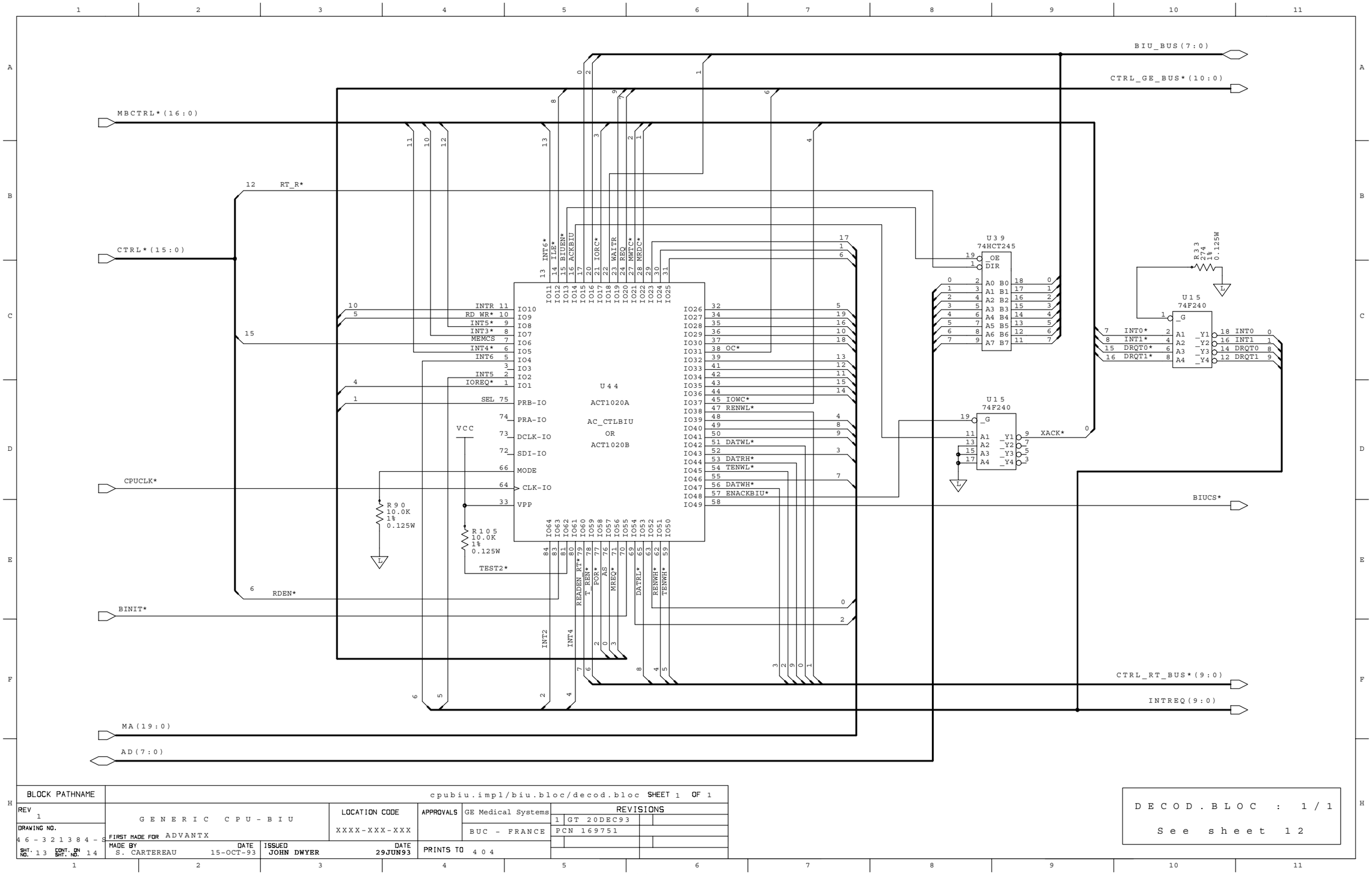


BLOCK PATHNAME	cpubiu.impl/micro.bloc/multibus.bloc SHEET 2 OF 2				
REV 0	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	
SHT. NO. 11 CONT. ON SHT. NO. 12	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

MULTIBUS.BLOC : 2/2

See sheet 3

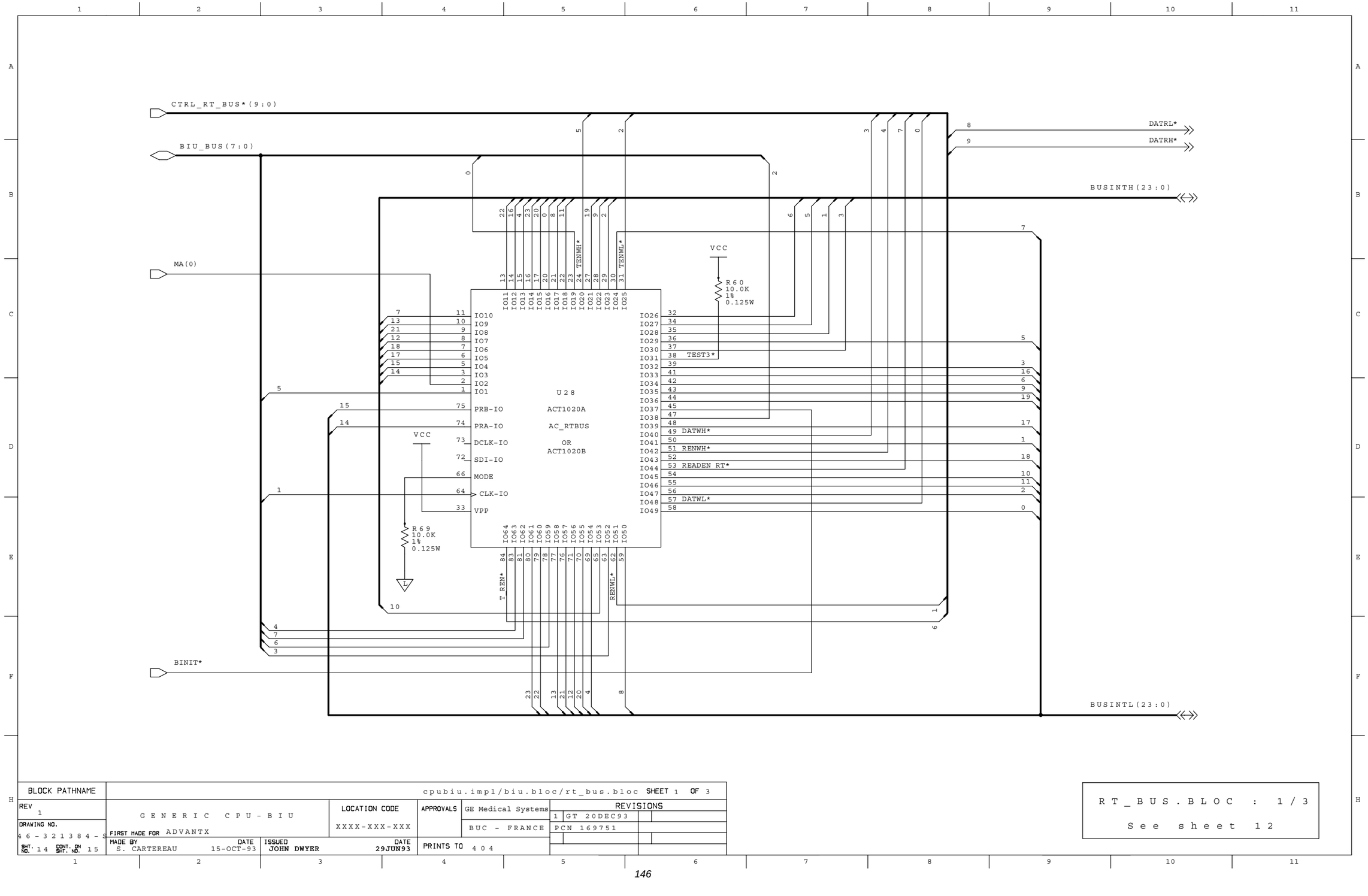

CLK_20_MEG
BIUCS*
INTREQ(9:0)
MA(19:0)
DECOD.BLOC
SHEET 13
BIUCS*
CPUCLK*
CPUCLK*
INTREQ(9:0)
MA(19:0)
CTRL_GE_BUS*(10:0)
AD(7:0)
AD(7:0)
BIU_BUS(7:0)
MBCTRL*(16:0)
MBCTRL*(16:0)
CTRL*(15:0)
CTRL*(15:0)
CTRL_RT_BUS*(9:0)
BINIT*
0
BINIT*
CLK_20_MEG
MA(19:0)
CTRL_GE_BUS*(10:0)
GE_BUS(1:0)
GE_BUS(1:0)
BIU_BUS(7:0)
GE_BUS.BLOC
SHEETS 17 AND 18
BIU_BUS(7:0)
LOCAL_RT_BUS*(15:0)
LOCAL_RT_BUS*(15:0)
CTRL_RT_BUS*(9:0)
MA(0)
GLOBAL_RT_BUS(31:0)
GLOBAL_RT_BUS(31:0)
BINIT*
RT_BUS.BLOC
SHEETS 14 TO 16
BLOCK PATHNAME
cpubiu.impl/biu.bloc SHEET 1 OF 1
REV 0
GENERIC CPU-BIU
LOCATION CODE
XXXX-XXX-XXX
APPROVALS
GE Medical Systems
BUC - FRANCE
REVISIONS
DRAWING NO.
46-321384-S
FIRST MADE FOR ADVANTX
MADE BY S. CARTEREAU DATE 15-OCT-93
ISSUED JOHN DWYER DATE 29JUN93
PRINTS TO 404
SHT. NO. 12 CONT. ON SHT. NO. 13
BIU.BLOC
See sheet 2



BLOCK PATHNAME	cpubiu.impl/biu.bloc/decod.bloc SHEET 1 OF 1				
REV 1	GENERIC CPU-BIU	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	1 GT 20DEC93 / PCN 169751
SHT. NO. 13 CONT. ON SHT. NO. 14	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

DECOD.BLOC : 1/1

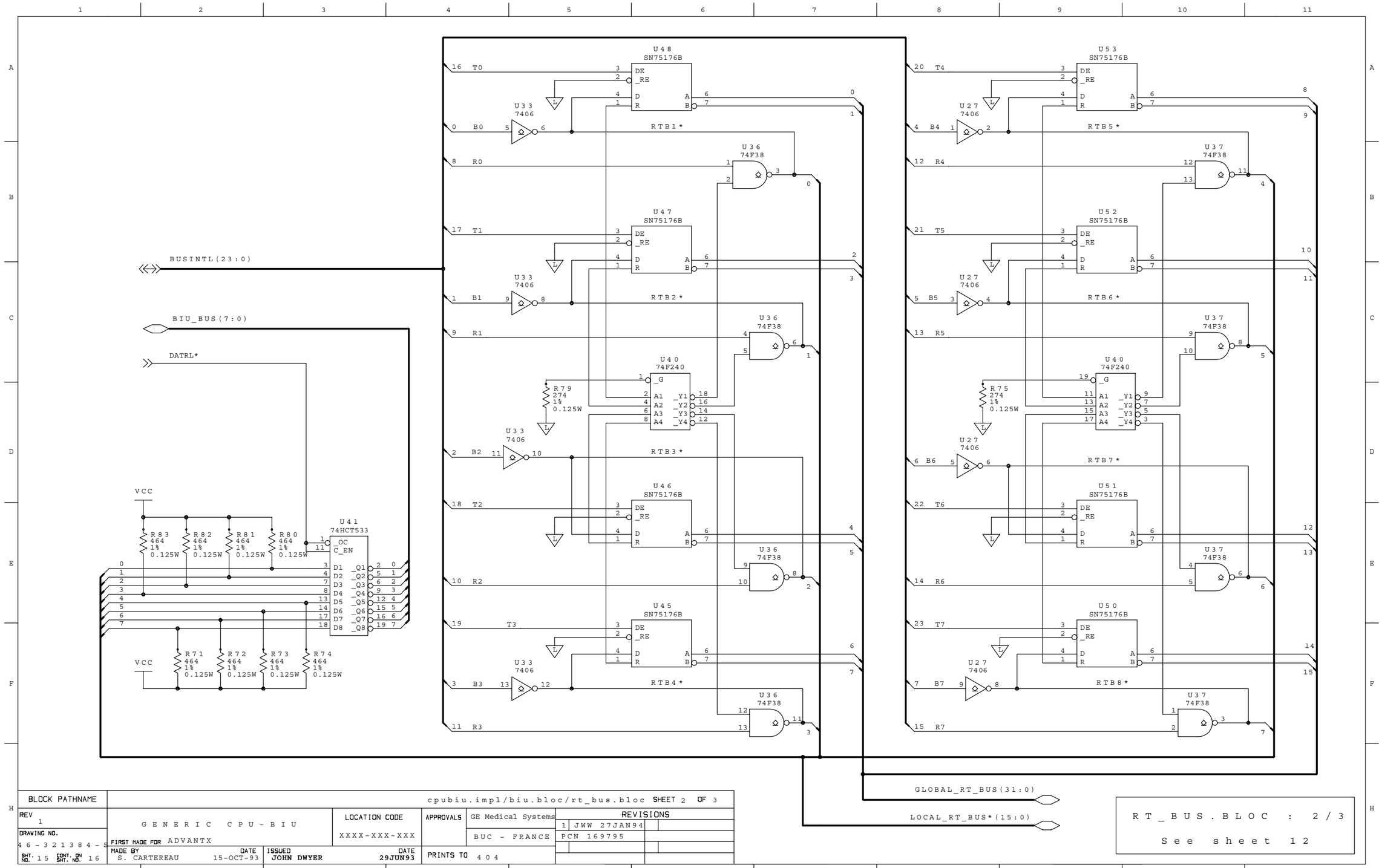
See sheet 12



BLOCK PATHNAME	cpubiu.impl/biu.bloc/rt_bus.bloc SHEET 1 OF 3				
REV 1	GENERIC CPU-BIU	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	1 GT 20DEC93 / PCN 169751
SHT. NO. 14 CONT. ON SHT. NO. 15	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

RT_BUS.BLOC : 1/3

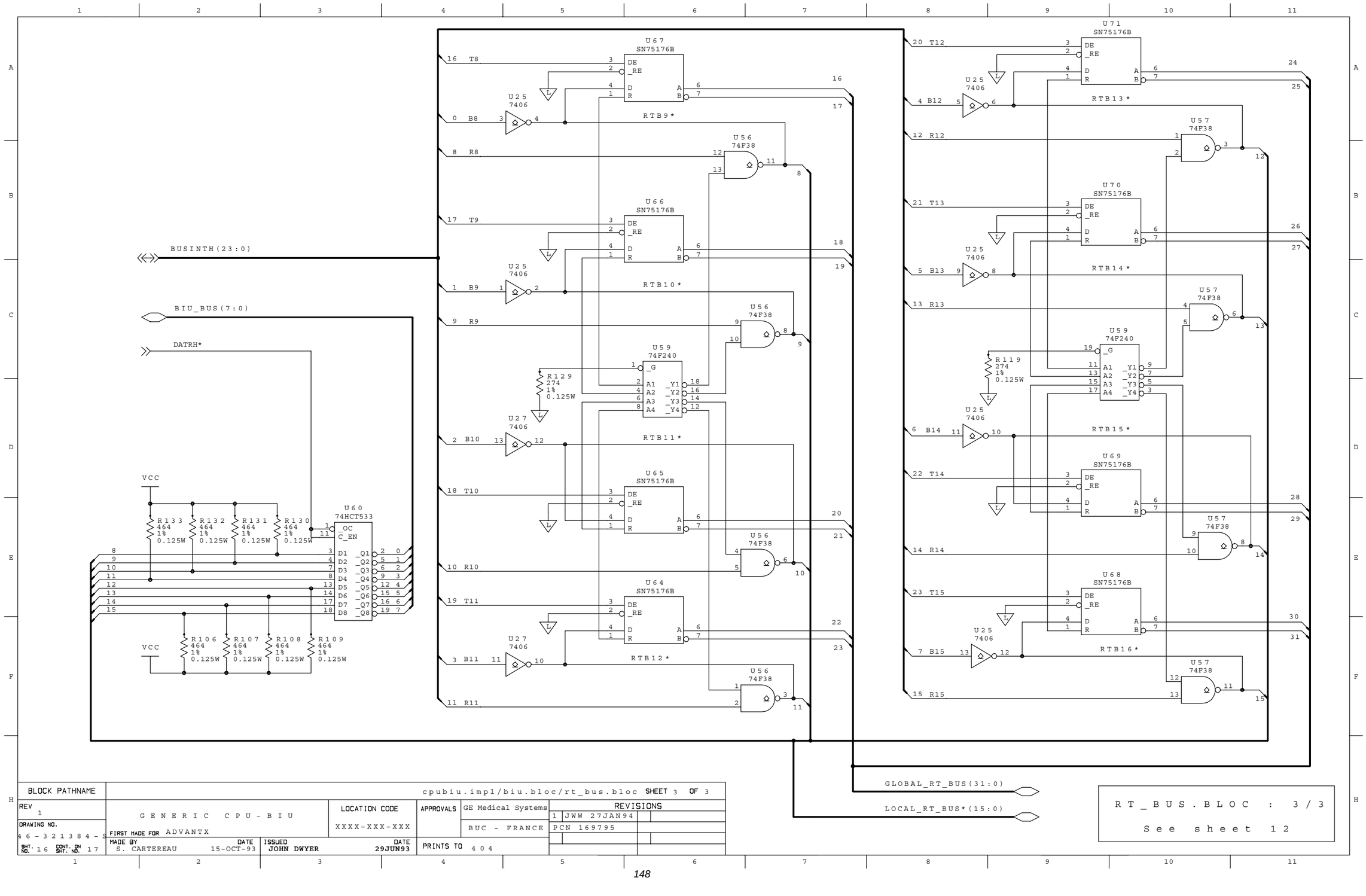
See sheet 12



BLOCK PATHNAME	cpubiu.impl/biu.bloc/rt_bus.bloc SHEET 2 OF 3				
REV 1	GENERIC CPU-BIU	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	1 JWW 27JAN94 PCN 169795
SHT. NO. 15 CONT. ON SHT. NO. 16	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

RT_BUS.BLOC : 2/3

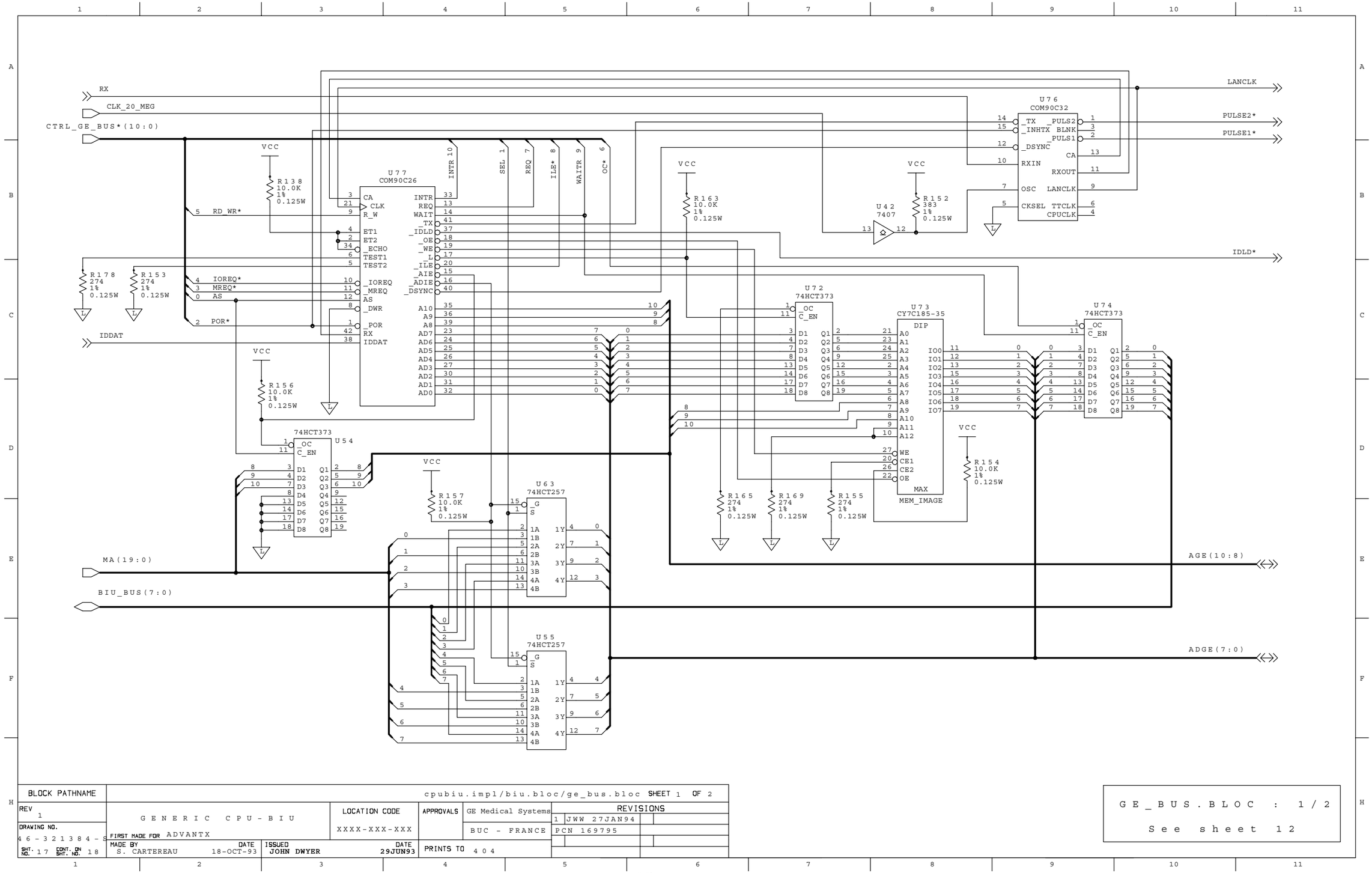
See sheet 12



BLOCK PATHNAME	cpubiu.impl/biu.bloc/rt_bus.bloc SHEET 3 OF 3				
REV 1	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 27JAN94 / PCN 169795
SHT. NO. 16 CONT. ON SHT. NO. 17	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

RT_BUS.BLOC : 3 / 3

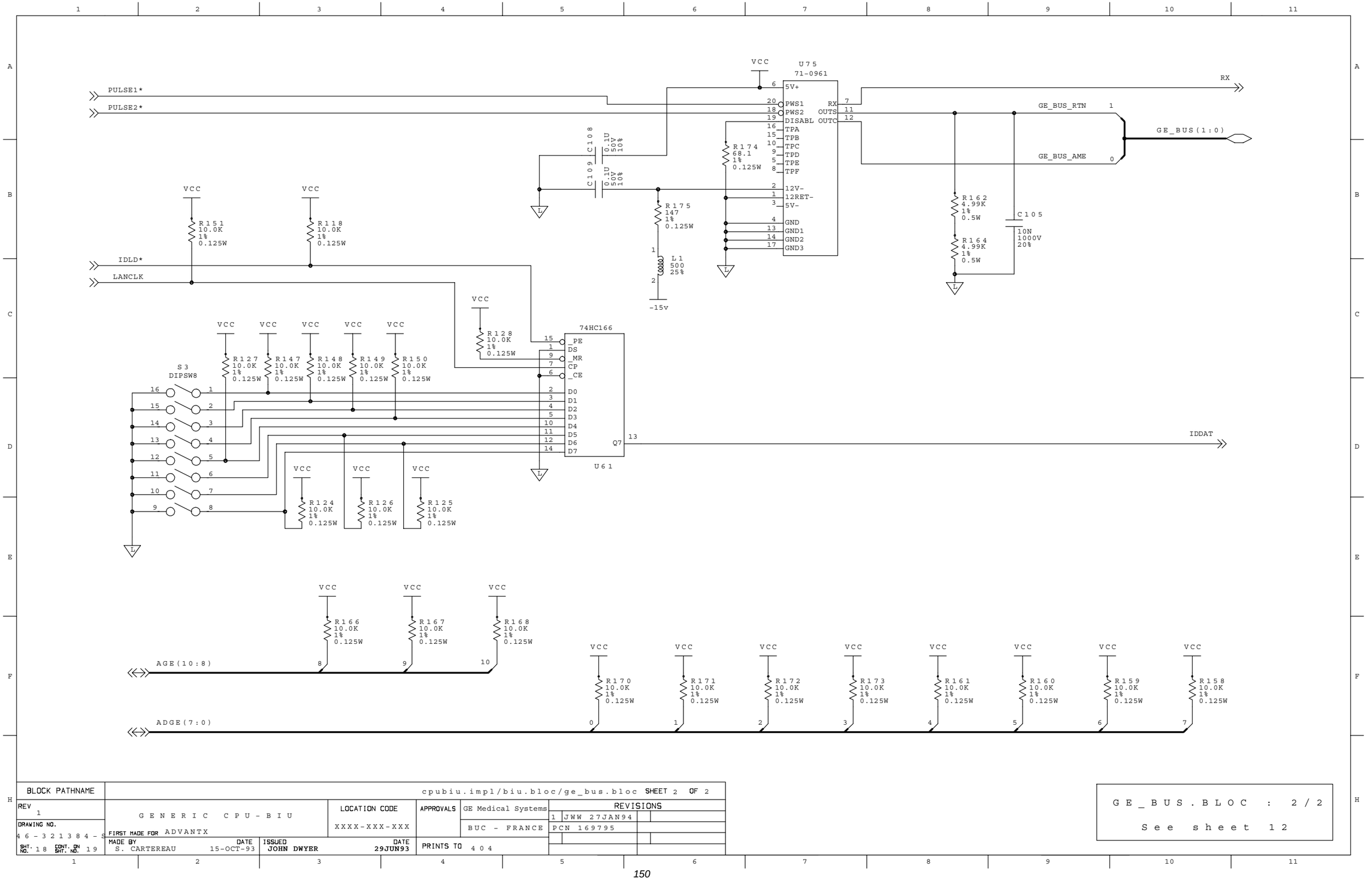
See sheet 12



BLOCK PATHNAME	cpubiu.impl/biu.bloc/ge_bus.bloc SHEET 1 OF 2				
REV 1	G E N E R I C C P U - B I U	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 27JAN94 PCN 169795
SHT. NO. 17 CONT. ON SHT. NO. 18	MADE BY S. CARTEREAU DATE 18-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

G E _ B U S . B L O C : 1 / 2

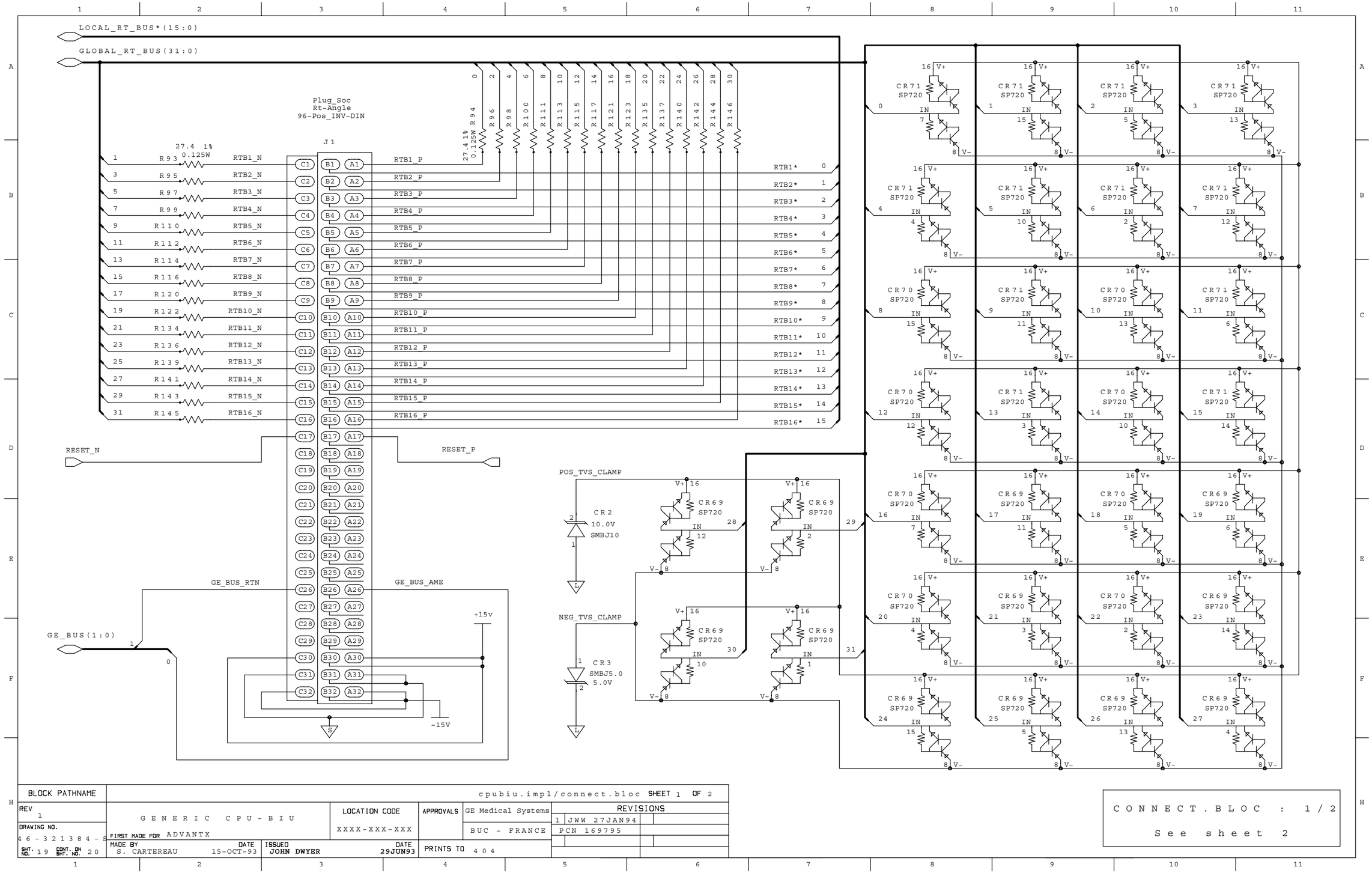
See sheet 12



BLOCK PATHNAME	cpubiu.impl/biu.bloc/ge_bus.bloc SHEET 2 OF 2				
REV 1	G E N E R I C C P U - B I U	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	1 JWW 27JAN94 / PCN 169795
SHT. NO. 18 CONT. ON SHT. NO. 19	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

GE_BUS.BLOC : 2/2

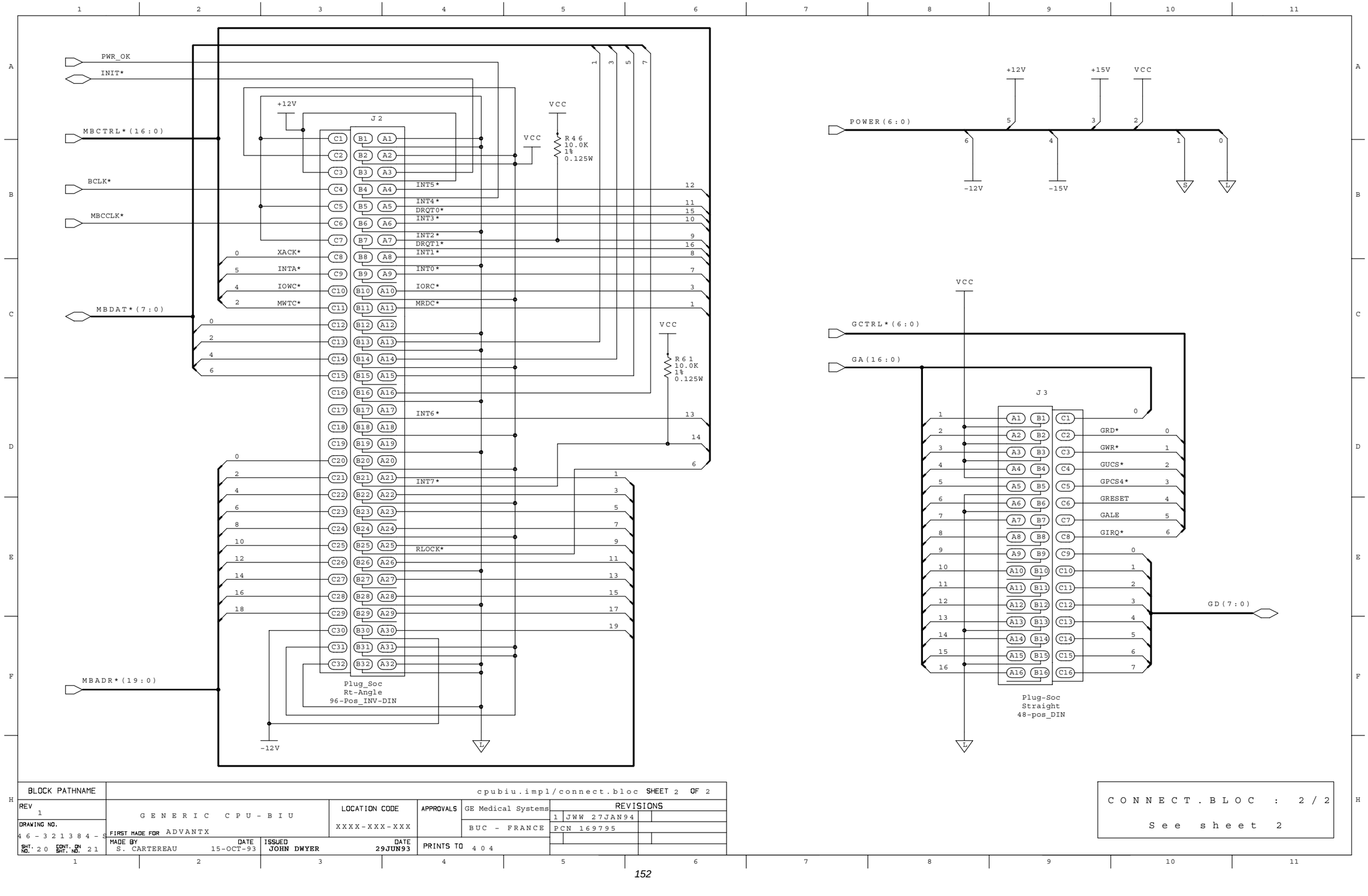
See sheet 12



BLOCK PATHNAME	cpubiu.impl/connect.bloc SHEET 1 OF 2				
REV 1	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 27JAN94
SHT. NO. 19 CONT. ON SHT. NO. 20	MADE BY S. CARTEREAU 15-OCT-93	ISSUED JOHN DWYER 29JUN93	PRINTS TO 404		PCN 169795

CONNECT.BLOC : 1/2

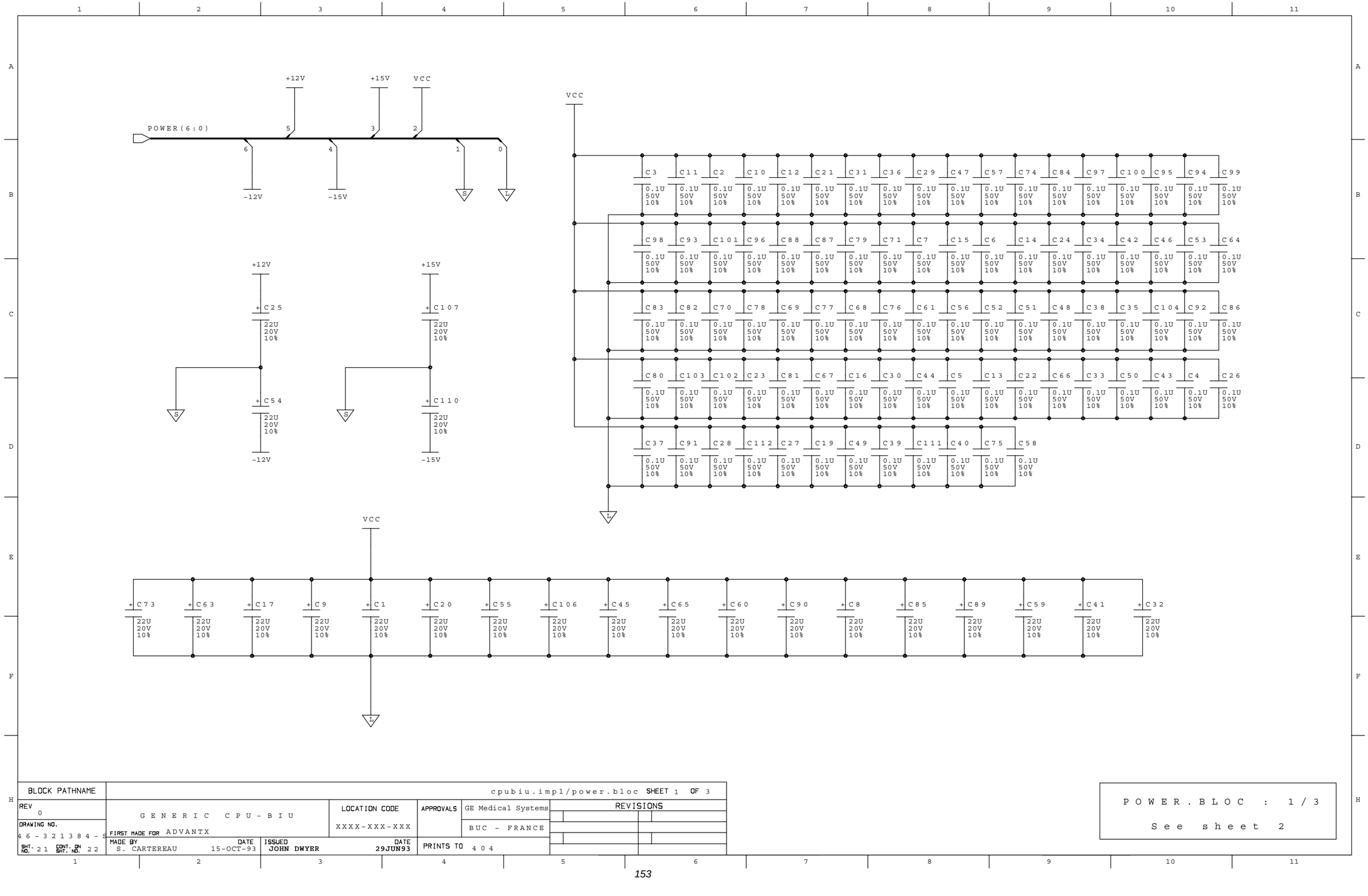
See sheet 2



BLOCK PATHNAME	cpubiu.impl/connect.bloc SHEET 2 OF 2				
REV 1	G E N E R I C C P U - B I U	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 JWW 27JAN94 / PCN 169795
SHT. NO. 20 CONT. ON SHT. NO. 21	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

C O N N E C T . B L O C : 2 / 2

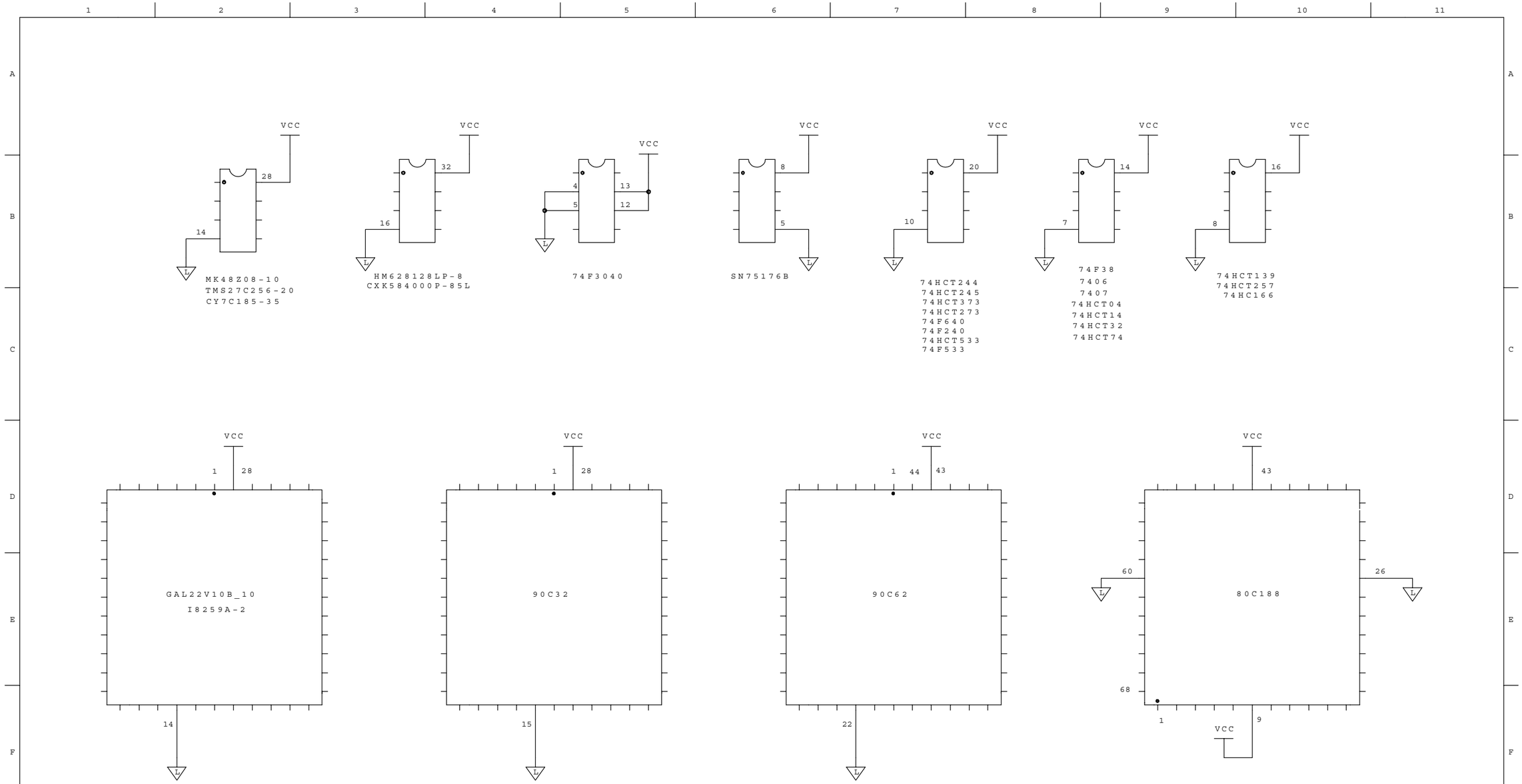
See sheet 2



BLOCK PATHNAME	cpubiu.impl/power.bloc SHEET 1 OF 3				
REV 0	G E N E R I C C P U - B I U	LOCATION CODE	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	
SHT. NO. 21 CONT. ON SHT. NO. 22	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

P O W E R . B L O C : 1 / 3

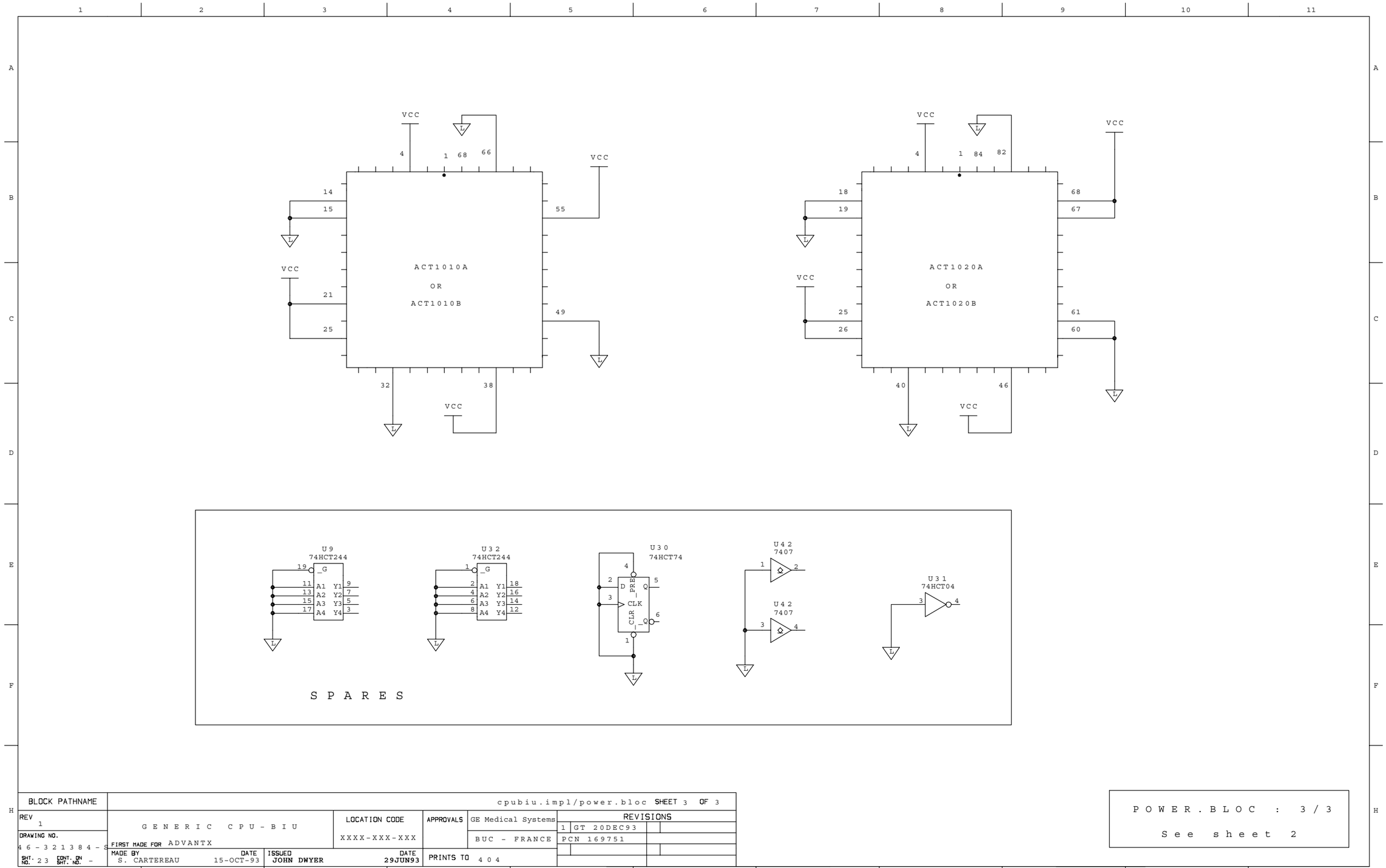
S e e s h e e t 2



BLOCK PATHNAME	cpubiu.impl/power.bloc SHEET 2 OF 3				
REV 3	GENERIC CPU-BIU	LOCATION CODE	APPROVALS JWW 28SEP93	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX	XXXX-XXX-XXX		BUC - FRANCE	1 JWW 28SEP93 · 3 JWW 27JAN94 · PCN 169719 · PCN 169795 · 2 GT 20DEC93 · PCN 169751
SHT. NO. 22 CONT. ON SHT. NO. 23	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

POWER.BLOC : 2/3

See sheet 2



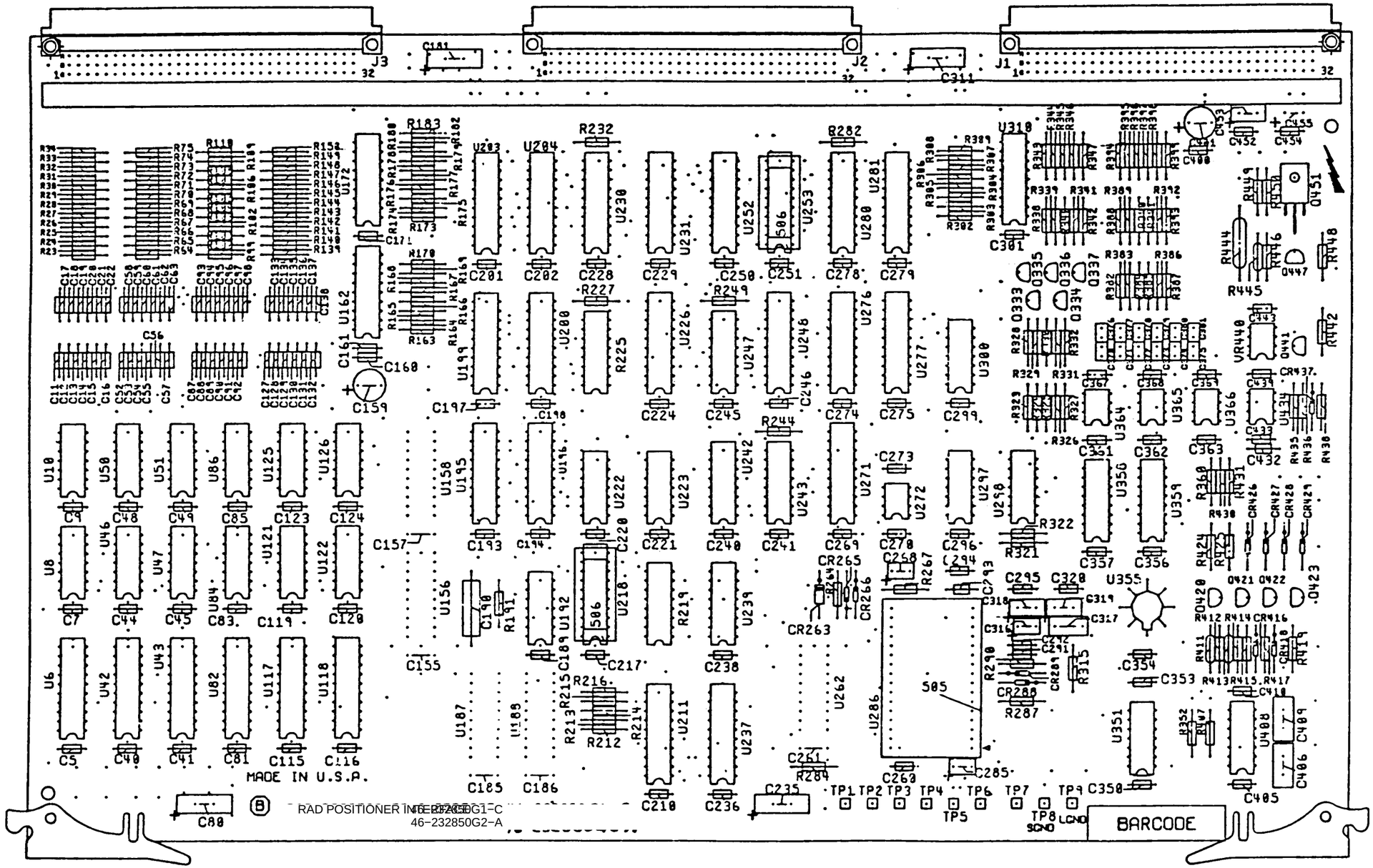
BLOCK PATHNAME	cpubiu.impl/power.bloc SHEET 3 OF 3				
REV 1	GENERIC CPU-BIU	LOCATION CODE XXXX-XXX-XXX	APPROVALS	GE Medical Systems	REVISIONS
DRAWING NO. 46-321384-S	FIRST MADE FOR ADVANTX			BUC - FRANCE	1 GT 20DEC93 / PCN 169751
SHT. NO. 23 CONT. ON SHT. NO. –	MADE BY S. CARTEREAU DATE 15-OCT-93	ISSUED JOHN DWYER DATE 29JUN93	PRINTS TO 404		

POWER.BLOC : 3/3

See sheet 2

SECTION 22
SKL RPM A1 A3/A4, 46−232850G2 (RAD POSITIONER I/O)

G1 pages, 2 thru 11, not supplied.



DRAWING NO. 46−232850−S CONT ON SHEET 2 SH NO. 1

RP1 A1 A3
(SHT1 BLOCK DIAGRAM)

GENERAL ELECTRIC

46−232850−S
CONT ON SHEET 2 SH NO. 1

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600 | SURFACES ✓ | TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± | DECIMALS (3 PLACES) ± | ANGLES ±

REV 4
46−232850−S
CONT ON SHEET 2 SH NO. 1

TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX

46−232850G1−D
46−232850G2−B

SHEET 3
MULTIBUS INTERFACE

IORC*
IOWC*
CCLK*
INIT*
INTA*
RTB2*

FUNCTION DECODE

BINIT* — SHT 4,5,6

XACK*

CONTROL SIGNALS

PRETRIG* — SHT 5

CONTROL SIGNALS

ADDRESS SELECT

WR0* N.C.
WR1* SHT 4
WR2* SHT 5
WR3* N.C.
WR4* N.C.
WR5* SHT 6
WR6* SHT 6
WR7* SHT 5
RD0* N.C.
RD1* SHT 4
RD2* SHT 5
RD3* N.C.
RD4* N.C.
RD5* SHT 6
RD6* SHT 6
RD7* SHT 5
RD8* SHT 7
RD9* SHT 7
RDA* SHT 4
RDB* SHT 4
RDC* SHT 8
RDD* SHT 8
RDE* SHT 8
RDF* SHT 8

ADDRESS BUFFER AND DECODE

ADDRESSING & CONTROL

ADR0*−ADRF*

RAD I/O PWA#2 SEL*

OUTBUSEN* — SHT 5

CONTROL SIGNALS

DAT0*−DAT7*

BUFF

OUTPUT DATA BUS — SHT 4, SHT 5, SHT 6

BUFF

INPUT DATA BUS — SHT 4, SHT 7, SHT 8

SHEET 6
OUTPUT PORTS E0X5H, E0X6H

SHT 3 — OUTPUT DATA BUS

PORT E0X5H

SHT 3 RD5*
SHT 3 WR5*

OUTPUT DRIVERS

HYD CARR TO SFD POS*
HYD FUNCT LIMIT*
SPARE OUT 8*
SPARE OUT 9*
SPARE OUT 10*
RM X−RAY WARNING LIGHT DR*
BKY ENER/FLM XPORT B DR*
BKY ENER/FLM XPORT A DR*

PORT E0X6H

SHT 3 RD6*
SHT 3 WR6*

OUTPUT DRIVERS

SPARE OUT 11*
SPARE OUT 12*
SPARE OUT 13*
PWR CONTACTOR ON DR*
SPARE OUT 14*
TOMO SWEEP START DR*
TOMO LOCK RELEASE DR*
LONG DETENT DR*

G1

THE REVISION NUMBER OF THIS SHEET IS THE CONTROL NUMBER OF THIS ENTIRE DOCUMENT. THIS REVISION NUMBER MUST INCREASE WHENEVER ANY SHEET IS CHANGED.

PCN #	169105		146030	−	143638	169027
DATE / SHT	1MAY 1991	23 DEC 86	18 MAR 87	14 MAR 87	14 OCT 87	10 DEC 90
1	1	AA	AB	0	1	1
2	1	AA	AB	0	1	1
3	1	AA	AB	0	0	0
4	0	AA	AB	0	0	0
5	0	AA	AB	0	0	0
6	0	AA	AB	0	0	0
7	1	AA	AA	0	1	1
8	1	AA	AB	0	1	1
9	0	AA	AB	0	0	0
10	0	AA	AA	0	0	0
11	0	AA	AA	0	0	0

G2

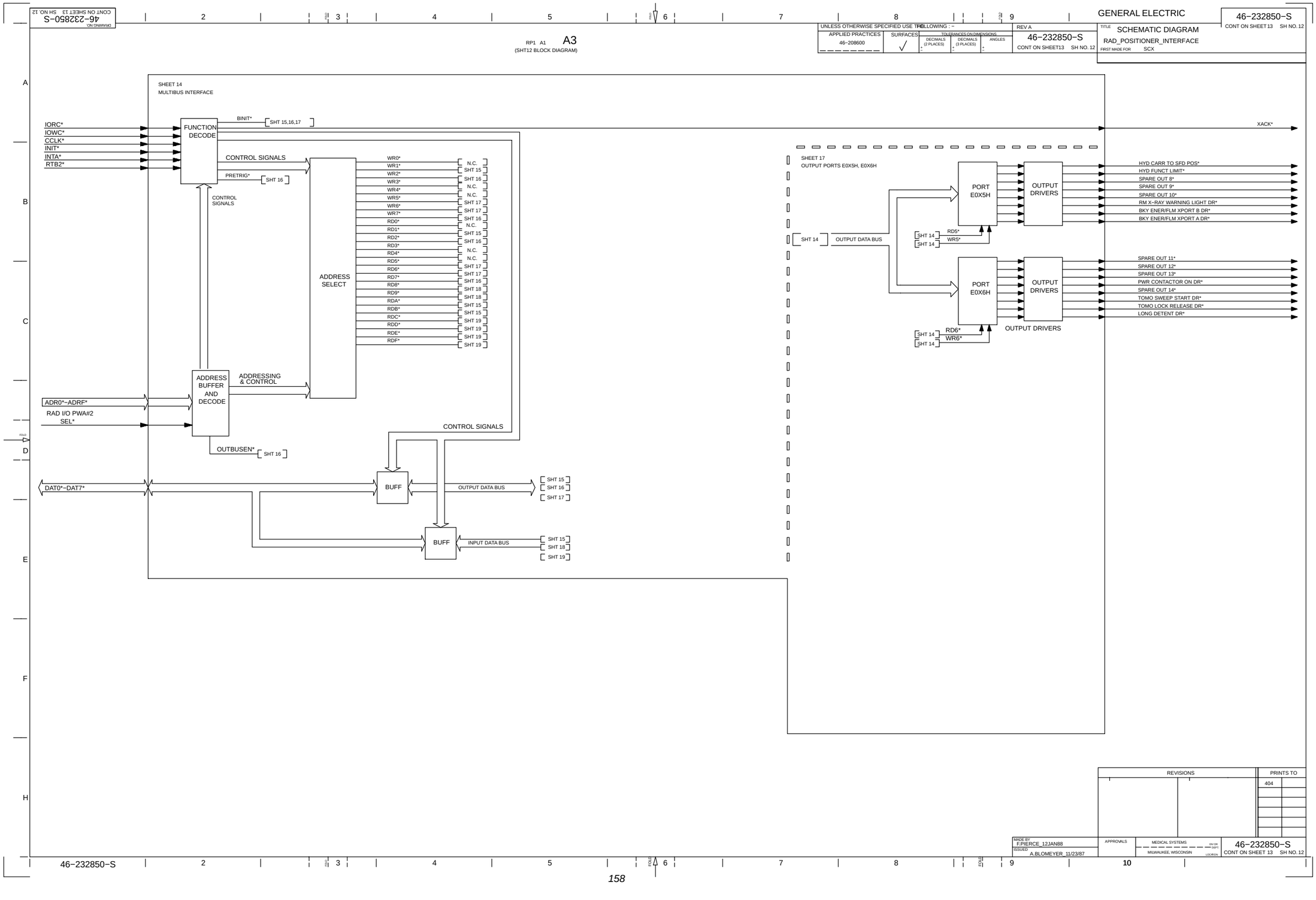
THE REVISION NUMBER OF THIS SHEET IS THE CONTROL NUMBER OF THIS ENTIRE DOCUMENT. THIS REVISION NUMBER MUST INCREASE WHENEVER ANY SHEET IS CHANGED.

PCN #	----	----	169027	169105		
DATE / SHT	12 JAN 88	26 JAN 88	10 DEC 90	1 MAY 91		
12	A	0	0	0	−	
13	A	0	0	0	−	
14	A	0	0	1	−	
15	A	0	0	0	−	
16	A	0	1	1	−	
17	A	0	0	0	−	
18	A	0	0	0	−	
19	A	0	0	0	−	
20	A	0	0	0	−	
21	A	0	0	0	−	
22	A	0	0	0	−	

REVISIONS				PRINTS TO	
NR	FEP_12JAN8	AB	DMR 27FEB87	404	
ADDED_SHTS_12−22		PCN 146030			
3	DRL_10DEC90	1	DRL_14OCT87		
PCN_169027		PCN_143638			
4	FEP_1MAY91	2	FEP_30DEC87		
PCN_169105		PCN_143923			

MADE BY BRIAN_ANDERSON_10/22/86
ISSUED B.ANDERSON_3/14/87
APPROVALS
MEDICAL SYSTEMS DIV OR DEPT
MILWAUKEE, WISCONSIN LOCATION

46−232850−S
CONT ON SHEET 2 SH NO. 1


46−232850−S
CONT ON SHEET 13 SH NO. 12
RP1 A1
A3
(SHT12 BLOCK DIAGRAM)
GENERAL ELECTRIC
46−232850−S
CONT ON SHEET 13 SH NO. 12
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES
46−208600
SURFACES
TOLERANCES ON DIMENSIONS
DECIMALS (2 PLACES) ±
DECIMALS (3 PLACES) ±
ANGLES ±
REV A
46−232850−S
CONT ON SHEET13 SH NO. 12
TITLE
SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX
SHEET 14
MULTIBUS INTERFACE
IORC*
IOWC*
CCLK*
INIT*
INTA*
RTB2*
FUNCTION DECODE
BINIT*
SHT 15,16,17
XACK*
CONTROL SIGNALS
PRETRIG*
SHT 16
CONTROL SIGNALS
ADDRESS SELECT
WR0*
WR1*
WR2*
WR3*
WR4*
WR5*
WR6*
WR7*
RD0*
RD1*
RD2*
RD3*
RD4*
RD5*
RD6*
RD7*
RD8*
RD9*
RDA*
RDB*
RDC*
RDD*
RDE*
RDF*
N.C.
SHT 15
SHT 16
SHT 17
SHT 18
SHT 19
ADDRESS BUFFER AND DECODE
ADDRESSING & CONTROL
ADR0*−ADRF*
RAD I/O PWA#2 SEL*
OUTBUSEN*
SHT 16
CONTROL SIGNALS
DAT0*−DAT7*
BUFF
OUTPUT DATA BUS
INPUT DATA BUS
SHT 15
SHT 16
SHT 17
SHT 18
SHT 19
SHEET 17
OUTPUT PORTS E0X5H, E0X6H
SHT 14
OUTPUT DATA BUS
PORT E0X5H
PORT E0X6H
OUTPUT DRIVERS
RD5*
WR5*
RD6*
WR6*
HYD CARR TO SFD POS*
HYD FUNCT LIMIT*
SPARE OUT 8*
SPARE OUT 9*
SPARE OUT 10*
RM X−RAY WARNING LIGHT DR*
BKY ENER/FLM XPORT B DR*
BKY ENER/FLM XPORT A DR*
SPARE OUT 11*
SPARE OUT 12*
SPARE OUT 13*
PWR CONTACTOR ON DR*
SPARE OUT 14*
TOMO SWEEP START DR*
TOMO LOCK RELEASE DR*
LONG DETENT DR*
REVISIONS
PRINTS TO
404
MADE BY
F.PIERCE_12JAN88
ISSUED
A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
46−232850−S
CONT ON SHEET 13 SH NO. 12

DRAWING NO. 46−232850−S CONT ON SHEET 14 SH NO. 13

RP1 A1 A3
(SHT13 BLOCK DIAGRAM)

GENERAL ELECTRIC

46−232850−S
CONT ON SHEET 14 SH NO. 13

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600
SURFACES ✓
TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± ; DECIMALS (3 PLACES) ± ; ANGLES ±

REV A
46−232850−S
CONT ON SHEET 14 SH NO. 13

TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX

SHEET 18
INPUT PORTS E0X8H,E0X9H

PORT E0X8H
SPARE IN 11
BUCKY IN MOTION A
CASS/FILM IN PLACE A
BUCKY LOWER A*
BUCKY UPPER A*
BUCKY ROTATE A*
BUCKY HORIZONTAL A
BUCKY VERTICAL A
INPUT DATA BUS → [SHT_14]
[SHT_14] RD8*

PORT E0X9H
SPARE IN 12
BUCKY IN MOTION B
CASS/FILM IN PLACE B
BUCKY LOWER B*
BUCKY UPPER B*
BUCKY ROTATED B*
BUCKY HORIZONTAL B
BUCKY VERTICAL B
[SHT_14] RD9*

SHEET 19
INPUT PORTS E0XCH−E0XFH

PORT E0XCH
SPARE IN 1
ROOM DOOR INTLK
MAMMO FLTR INLK
SID SWITCH E
SID SWITCH D
SID SWITCH C
SID SWITCH B
SID SWITCH A
INPUT DATA BUS → [SHT_14]
[SHT_14] RDC*

PORT E0XDH
TOMO MODE
VRT HORIZ TOMO ON
VRT MODE SELECTED
SPARE IN 3
HYD FLUORO ENABLE
HYD CARR IN RAD POS
HYD TOMO READY/PREPARED
SPARE IN 4
[SHT_14] RDD*

PORT E0XEH
TOMO XRAY/ANGLE REACHED
ORDO RDY/DEVICE PREP
ORDO ON
SPARE IN 5
SPARE IN 6
SPARE IN 7
SPARE IN 8
SPARE IN 9
[SHT_14] RDE*

PORT E0XFH
SPARE IN 10
25.0 IN.SWP/TOMO BIT0
18.75 IN.SWP/TOMO BIT1
12.5 IN.SWP/TOMO BIT2
6.75 IN.SWP/TOMO BIT3
FAST SPEED/TOMO BIT4
MEDIUM SPEED
SLOW SPEED
[SHT_14] RDF*

ORDO SWP DEBOUNCE CIRCUIT
ORDO SWP DEBOUNCE CIRCUIT → EXPOSE GATE* → RTB5*

SHEET 15
ANALOG DATA ACQUISITION

LONG CASS SIZE A
TRAN CASS SIZE A
LONG CASS SIZE B
TRAN CASS SIZE B
FILTERS AND BUFFERS
ANALOG MUX
SAMPLE AND HOLD
12−BIT ADC
8 LSB
4 MSB+DATA READY
[SHT_14] RDA*
PORT E0XAH
PORT E0XBH
INPUT DATA BUS → [SHT_14]
[SHT_16] LOOP OUTPUT
BUFFER
5VDC REF
SAMPLE ENABLE
MUX ADDRESSING
BUFFER
5VDC PRECISION REFERENCE
5VDC REF [SHT 16]
TIMES TWO MULTIPLIER
[SHT_14] RDB*
10VDC
TV DC REF−I/O (×4)
REF RTN−I/O (×4)
REF REF−I/O
[SHT_14] OUTPUT DATA BUS
PORT E0X1H
OUTPUT DRIVER
SPARE OUT 1*
SPARE OUT 2*
SPARE OUT 3*
[SHT_14] RD1*
[SHT_14] WR1*

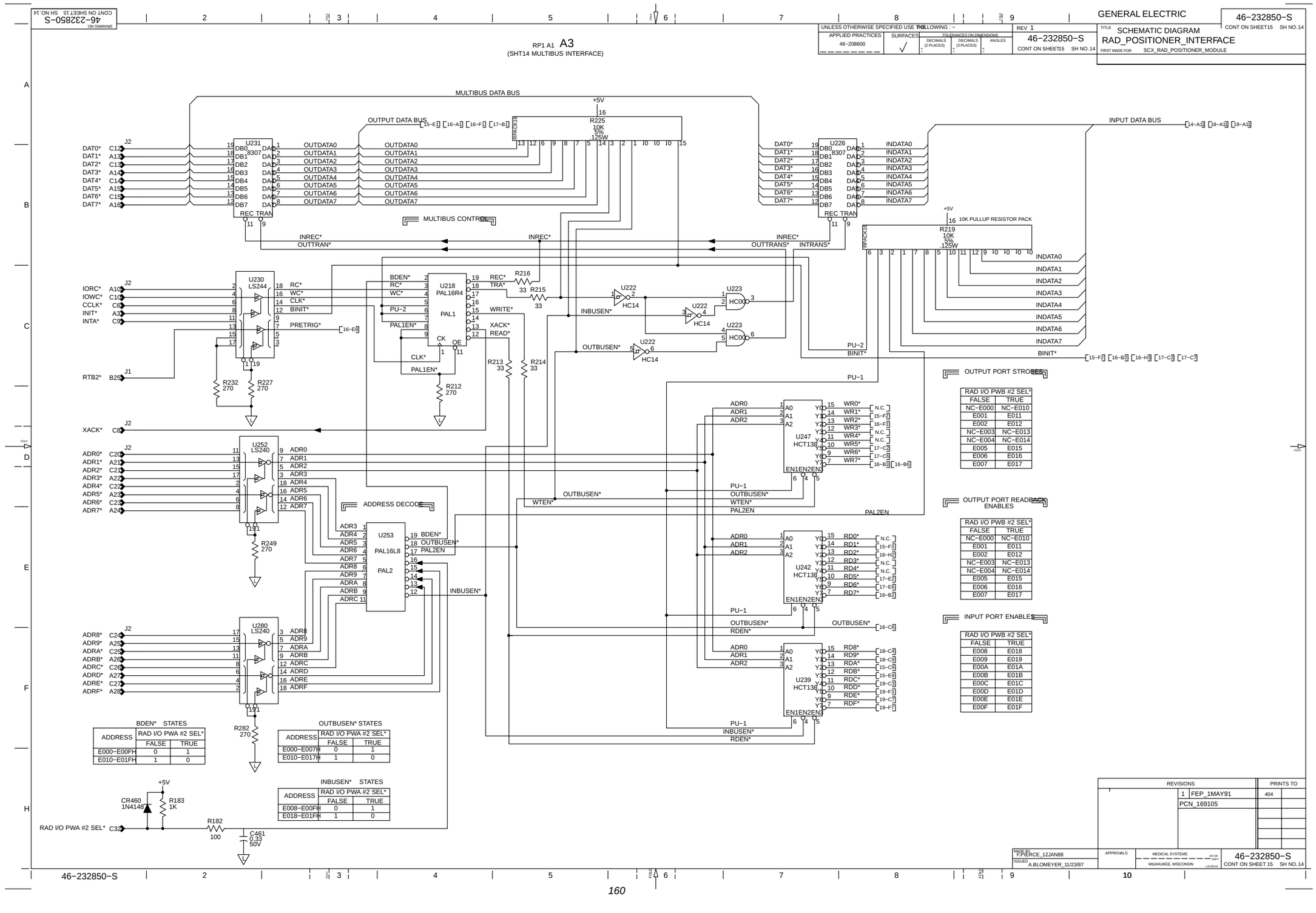
SHT 16
ION CHAMBER INTERFACE

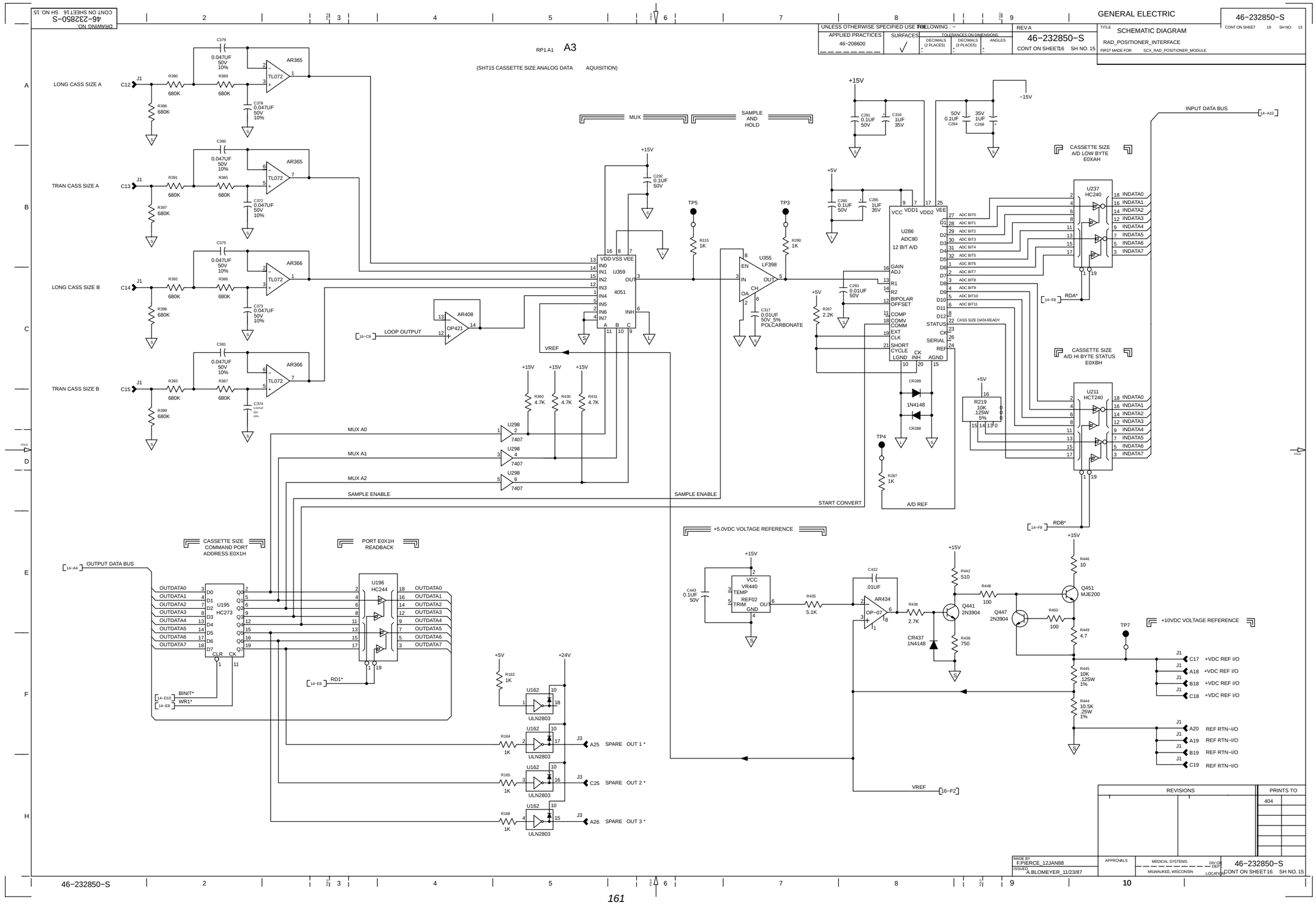
[SHT_14] OUTPUT DATA BUS
PORT E0X7H
RF/RI GAIN VALUES
BUFFER
BUFFER
ENAB BRT SIG
MUX ADDRESSING
MUX ADDRESSING
ANALOG MUX
OUTPUT DRIVERS
START INTEG ION CHBR A
START INTEG ION CHBR B
[SHT_14] PRETRIG*
ENABLE
+5V
ION CHBR OUTPUT A
ION CHBR OUTPUT B
FILTERS AND BUFFERS
ANALOG MUX
BUFFER
DIGITALLY CONTROLLED VARIABLE GAIN AMPLIFIER
BUFFERS AND DIFFERENTIAL AMPS
BRT SIG−N
BRT SIG−P
LOOP OUTPUT → [SHT_15]
MODULE DISABLE
ARTB1−N
ARTB1−P
[SHT_15] 5VDC REF
DAC RF/RI SEL
[SHT_14] WR7*
[SHT_14] OUT BUS EN*
[SHT_14] OUTPUT DATA BUS
PORT EOX2H
OUTPUT DRIVERS
OUTPUT DRIVERS
ION CHBR AREA 1 SEL
ION CHBR AREA 2 SEL
ION CHBR AREA 2 SEL
SPARE OUT 4*
SPARE OUT 5*
SPARE OUT 6*
SPARE OUT 7*
[SHT_14] RD2*
[SHT_14] WR2*

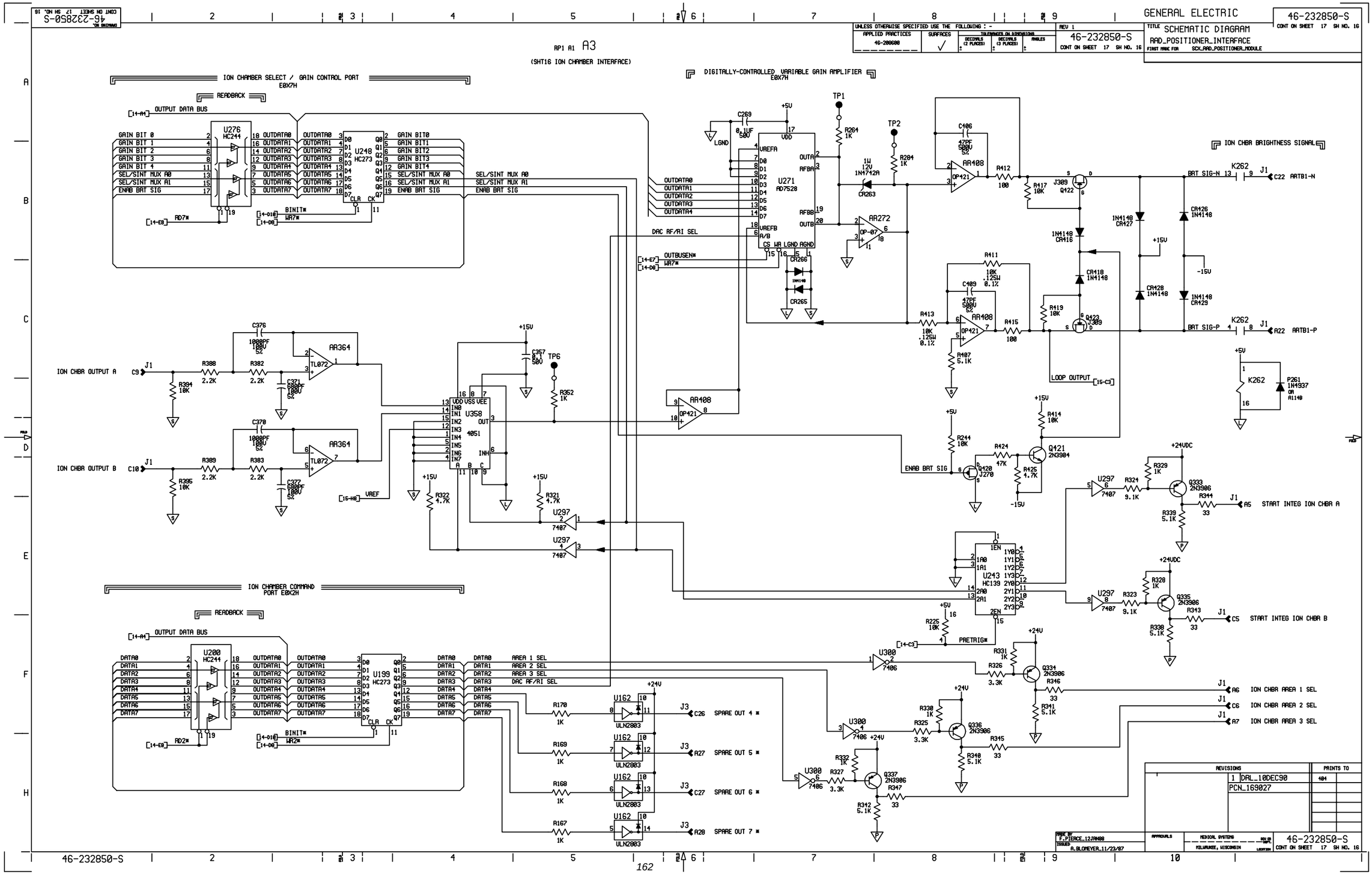
REVISIONS

PRINTS TO 404

MADE BY F.PIERCE 12JAN88
ISSUED A.BLOMEYER 11/23/87
APPROVALS
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN
46−232850−S
CONT ON SHEET 14 SH NO. 13


GENERAL ELECTRIC
46−232850−S
CONT ON SHEET15 SH NO.14
TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX_RAD_POSITIONER_MODULE
REV 1
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600
SURFACES
TOLERANCES ON DIMENSIONS
DRAWING NO. 46−232850−S
CONT ON SHEET 15 SH NO. 14
RP1 A1 A3
(SHT14 MULTIBUS INTERFACE)
MULTIBUS DATA BUS
OUTPUT DATA BUS
INPUT DATA BUS
+5V
R225 10K 5% .125W
RPACK16
R219 10K 5% .125W
10K PULLUP RESISTOR PACK
U231 8307
U226 8307
REC TRAN
MULTIBUS CONTROL
INREC*
OUTTRAN*
OUTTRANS*
INTRANS*
J2
DAT0* C12
DAT1* A13
DAT2* C13
DAT3* A14
DAT4* C14
DAT5* A15
DAT6* C15
DAT7* A16
OUTDATA0
OUTDATA1
OUTDATA2
OUTDATA3
OUTDATA4
OUTDATA5
OUTDATA6
OUTDATA7
INDATA0
INDATA1
INDATA2
INDATA3
INDATA4
INDATA5
INDATA6
INDATA7
U230 LS244
IORC* A10
IOWC* C10
CCLK* C6
INIT* A3
INTA* C9
RC*
WC*
CLK*
BINIT*
PRETRIG*
RTB2* B25
J1
R232 270
R227 270
XACK* C8
U218 PAL16R4
PAL1
BDEN*
PU−2
PAL1EN*
R216 33
R215 33
R213 33
R214 33
R212 270
REC*
TRA*
WRITE*
XACK*
READ*
U222 HC14
U223 HC00
INBUSEN*
OUTBUSEN*
PU−2
PU−1
BINIT*
OUTPUT PORT STROBES
RAD I/O PWB #2 SEL*
FALSE TRUE
NC−E000 NC−E010
E001 E011
E002 E012
NC−E003 NC−E013
NC−E004 NC−E014
E005 E015
E006 E016
E007 E017
U247 HCT138
WR0* WR1* WR2* WR3* WR4* WR5* WR6* WR7*
ADR0 ADR1 ADR2
EN1EN2EN3
U252 LS240
ADR0* C20
ADR1* A21
ADR2* C21
ADR3* A22
ADR4* C22
ADR5* A23
ADR6* C23
ADR7* A24
ADDRESS DECODE
U253 PAL16L8
PAL2
BDEN*
OUTBUSEN*
PAL2EN
R249 270
WTEN*
PAL2EN
OUTPUT PORT READBACK ENABLES
U242 HCT138
RD0* RD1* RD2* RD3* RD4* RD5* RD6* RD7*
INPUT PORT ENABLES
U280 LS240
ADR8* C24
ADR9* A25
ADRA* C25
ADRB* A26
ADRC* C26
ADRD* A27
ADRE* C27
ADRF* A28
ADRD
ADRE
ADRF
R282 270
RDEN*
U239 HCT138
RD8* RD9* RDA* RDB* RDC* RDD* RDE* RDF*
BDEN* STATES
ADDRESS RAD I/O PWA #2 SEL* FALSE TRUE
E000−E00FH 0 1
E010−E01FH 1 0
OUTBUSEN* STATES
ADDRESS RAD I/O PWA #2 SEL* FALSE TRUE
E000−E007H 0 1
E010−E017H 1 0
INBUSEN* STATES
ADDRESS RAD I/O PWA #2 SEL* FALSE TRUE
E008−E00FH 0 1
E018−E01FH 1 0
CR460 1N4148
R183 1K
R182 100
C461 0.33 50V
RAD I/O PWA #2 SEL* C32
REVISIONS
1 FEP_1MAY91
PCN_169105
PRINTS TO 404
MADE BY F.PIERCE_12JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
46−232850−S
CONT ON SHEET 15 SH NO. 14


A3
RP1 A1
(SHT15 CASSETTE SIZE ANALOG DATA AQUISITION)
GENERAL ELECTRIC
46−232850−S
SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
REV A
46−232850−S
CONT ON SHEET 16 SH NO. 15
DRAWING NO. 46−232850−S
CONT ON SHEET 16 SH NO. 15
LONG CASS SIZE A
TRAN CASS SIZE A
LONG CASS SIZE B
TRAN CASS SIZE B
AR365
AR366
TL072
MUX
SAMPLE AND HOLD
LOOP OUTPUT
AR408
OP421
VREF
U359
4051
U355
LF398
U286
ADC80
12 BIT A/D
INPUT DATA BUS
CASSETTE SIZE A/D LOW BYTE E0XAH
CASSETTE SIZE A/D HI BYTE STATUS E0XBH
U237
HC240
U211
HCT240
RDA*
RDB*
MUX A0
MUX A1
MUX A2
SAMPLE ENABLE
START CONVERT
A/D REF
CASSETTE SIZE COMMAND PORT ADDRESS E0X1H
PORT E0X1H READBACK
OUTPUT DATA BUS
U195
HC273
U196
HC244
BINIT*
WR1*
RD1*
ULN2803
SPARE OUT 1 *
SPARE OUT 2 *
SPARE OUT 3 *
+5.0VDC VOLTAGE REFERENCE
+10VDC VOLTAGE REFERENCE
+VDC REF I/O
REF RTN−I/O
VREF
REVISIONS
PRINTS TO
MADE BY F.PIERCE_12JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
DIV OR DEPT
LOCATION
46−232850−S
CONT ON SHEET 16 SH NO. 15


GENERAL ELECTRIC
46-232850-S
SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
RP1 A1 A3
(SHT16 ION CHAMBER INTERFACE)
ION CHAMBER SELECT / GAIN CONTROL PORT E0X7H
READBACK
OUTPUT DATA BUS
DIGITALLY-CONTROLLED VARIABLE GAIN AMPLIFIER E0X7H
ION CHBR BRIGHTNESS SIGNAL
ION CHBR OUTPUT A
ION CHBR OUTPUT B
VREF
ENAB BRT SIG
LOOP OUTPUT
BRT SIG-N
BRT SIG-P
ION CHAMBER COMMAND PORT E0X2H
SPARE OUT 4 *
SPARE OUT 5 *
SPARE OUT 6 *
SPARE OUT 7 *
START INTEG ION CHBR A
START INTEG ION CHBR B
ION CHBR AREA 1 SEL
ION CHBR AREA 2 SEL
ION CHBR AREA 3 SEL
REVISIONS
1 DRL_10DEC90
PCN_169027
PRINTS TO
404
46-232850-S
CONT ON SHEET 17 SH NO. 16

CONT ON SHEET 18 SH NO. 17

GENERAL ELECTRIC

46-232850-S
CONT ON SHEET 18 SH NO. 17

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : –
APPLIED PRACTICES: 46-208600
SURFACES: ✓
TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ±; DECIMALS (3 PLACES) ±; ANGLES ±

REV A
46-232850-S
CONT ON SHEET 18 SH NO. 17

TITLE: SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR: SCX_RAD_POSITIONER_MODULE

RP1 A1 A3

(SHT17 OUTPUT PORTS E0X5H, E0X6H)

[14-A] OUTPUT DATA BUS

BUCKY/HYDRAJUST COMMAND
E0X5H

+24VDC

U892 HC273

OUTDATA0 3 D0 Q0 2 G1Q0 G1Q0
OUTDATA1 4 D1 Q1 5 G1Q1 G1Q1
OUTDATA2 7 D2 Q2 6 G1Q2 G1Q2
OUTDATA3 8 D3 Q3 9 G1Q3 G1Q3
OUTDATA4 13 D4 Q4 12 G1Q4 G1Q4
OUTDATA5 14 D5 Q5 15 G1Q5 G1Q5
OUTDATA6 17 D6 Q6 16 G1Q6 G1Q6
OUTDATA7 18 D7 Q7 19 G1Q7 G1Q7
CLR CK
[14-D] BINIT* 1 11
[14-D] WR5*

R173 1K
R174 1K
R175 1K
R176 1K
R177 1K
R178 1K
R179 1K
R180 1K

U172 ULN2803

1	18	J3	C28 HYD CARR TO SFD POS *
2	17		A29 HYD FUNCT LIMIT *
3	16		C29 SPARE OUT 8*
4	15		A30 SPARE OUT 9*
5	14		C30 SPARE OUT 10*
6	13		A31 RM XRAY WARNING LIGHT BR*
7	12		C31 BKY ENER/FLM XPORT B DR*
8	11		A32 BKY ENER/FLM XPORT A DR*
10			

READBACK

U893 HC244

OUTDATA0 18 G1Q0
OUTDATA1 16 G1Q1
OUTDATA2 14 G1Q2
OUTDATA3 12 G1Q3
OUTDATA4 9 G1Q4
OUTDATA5 7 G1Q5
OUTDATA6 5 G1Q6
OUTDATA7 3 G1Q7
19 1
[14-E] RD5*

TUBE STAND LOCKS/TOMO COMMAND
E0X6H

+24VDC

U281 HC273

OUTDATA0 3 D0 Q0 2 G3Q0 G3Q0
OUTDATA1 4 D1 Q1 5 G3Q1 G3Q1
OUTDATA2 7 D2 Q2 6 G3Q2 G3Q2
OUTDATA3 8 D3 Q3 9 G3Q3 G3Q3
OUTDATA4 13 D4 Q4 12 G3Q4 G3Q4
OUTDATA5 14 D5 Q5 15 G3Q5 G3Q5
OUTDATA6 17 D6 Q6 16 G3Q6 G3Q6
OUTDATA7 18 D7 Q7 19 G3Q7 G3Q7
CLR CK
[14-D] BINIT* 1 11
[14-D] WR6*

R309 1K
R308 1K
R307 1K
R306 1K
R305 1K
R304 1K
R303 1K
R302 1K

U310 ULN2803

8	11	J1	A1 SPARE OUT 11*
7	12		C1 SPARE OUT 12*
6	13		A2 SPARE OUT 13*
5	14		C2 PWR CONTACTOR ON DR*
4	15		A3 SPARE OUT 14*
3	16		C3 TOMO SWEEP START DR*
2	17		A4 TOMO LOCK RELEASE DR*
1	18		C4 LONG DETENT DR*
10			

READBACK

U277 HC244

OUTDATA0 18 G3Q0
OUTDATA1 16 G3Q1
OUTDATA2 14 G3Q2
OUTDATA3 12 G3Q3
OUTDATA4 9 G3Q4
OUTDATA5 7 G3Q5
OUTDATA6 5 G3Q6
OUTDATA7 3 G3Q7
19 1
[14-E] RD6*

REVISIONS

PRINTS TO: 404

MADE BY: F.PIERCE_12JAN88
ISSUED: A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS — DIV OR DEPT
MILWAUKEE, WISCONSIN — LOCATION
46-232850-S
CONT ON SHEET 18 SH NO. 17

DRAWING NO. 46−232850−S CONT ON SHEET 19 SH NO. 18

GENERAL ELECTRIC — 46−232850−S — CONT ON SHEET 19 SH NO. 18

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES: 46−208600 | SURFACES: √ | TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± | DECIMALS (3 PLACES) ± | ANGLES ±

REV a
46−232850−S
CONT ON SHEET19 SH NO. 18

TITLE: SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX_RAD_POSITIONER_MODULE

RP1 A1 A3
(SHT18 INPUT PORTS E0X8H − E0X9H)

INPUT DATA BUS 14−A10

SPARE IN 11 — J3 A1 — R24 20K — C11 0.1UF 50V — U8 10 9 — 1489A

BUCKY IN MOTION A — J3 C1 — R35 5.6K — R23 20K — C17 0.1UF 50V — U8 13 12 — 1489A

CASS/FILM IN PLACE A — J3 A2 — R37 5.6K — R26 20K — C18 0.1UF 50V — U10 13 12 — 1489A

BUCKY LOWER A* — J3 C2 — R25 20K — C12 0.1UF 50V — U10 10 9 — 1489A

BUCKY UPPER A* — J3 A3 — R28 20K — C19 0.1UF 50V — U10 1 2 — 1489A

BUCKY ROTATED A* — J3 C3 — R27 20K — C13 0.1UF 50V — U10 4 5 — 1489A

BUCKY HORIZONTAL A — J3 A4 — R30 20K — C20 0.1UF 50V — U8 1 2 — 1489A

BUCKY VERTICAL A — J3 C4 — R29 20K — C14 0.1UF 50V — U8 4 5 — 1489A

CASSETTE/BUCKY STATUS PORT A E0X8H

U6 HC533

D1 18	Q1 19	INDATA0
D2 17	Q2 16	INDATA1
D3 14	Q3 15	INDATA2
D4 13	Q4 12	INDATA3
D5 8	Q5 9	INDATA4
D6 7	Q6 6	INDATA5
D7 4	Q7 5	INDATA6
D8 3	Q8 2	INDATA7

CLK 11 — OE 1 — RD8* 14−F8

SPARE IN 12 — J3 A5 — R33 20K — C21 0.1UF 50V — U46 10 9 — 1489A

BUCKY IN MOTION B — J3 C5 — R36 5.6K — R34 20K — C22 0.1UF 50V — U50 10 9 — 1489A

CASS/FILM IN PLACE B — J3 A6 — R38 5.6K — R32 20K — C16 0.1UF 50V — U50 13 12 — 1489A

BUCKY LOWER B* — J3 C6 — R31 20K — C15 0.1UF 50V — U46 13 12 — 1489A

BUCKY UPPER B* — J3 A7 — R65 20K — C52 0.1UF 50V — U46 4 5 — 1489A

BUCKY ROTATED B* — J3 C7 — R64 20K — C58 0.1UF 50V — U46 1 2 — 1489A

BUCKY HORIZONTAL B — J3 A8 — R67 20K — C59 0.1UF 50V — U50 4 5 — 1489A

BUCKY VERTICAL B — J3 C8 — R66 20K — C53 0.1UF 50V — U50 1 2 — 1489A

CASSETTE/BUCKY STATUS PORT B E0X9H

U42 HC533

D1 18	Q1 19	INDATA0
D2 17	Q2 16	INDATA1
D3 14	Q3 15	INDATA2
D4 13	Q4 12	INDATA3
D5 8	Q5 9	INDATA4
D6 7	Q6 6	INDATA5
D7 4	Q7 5	INDATA6
D8 3	Q8 2	INDATA7

CLK 11 — OE 1 — RD9* 14−F8

REVISIONS | PRINTS TO 404

MADE BY F.PIERCE_13JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN
46−232850−S CONT ON SHEET 19 SH NO. 18

DRAWING NO. 46−232850−S
CONT ON SHEET 20 SH NO. 19

RP1 A1 A3

(SHT19 INPUT PORTS E0XCH − E0XFH)

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600 | SURFACES √ | TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± | DECIMALS (3 PLACES) ± | ANGLES ±

REV A
46−232850−S
CONT ON SHEET 20 SH NO. 19

GENERAL ELECTRIC
TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX_RAD_POSITIONER_MODULE

46−232850−S
CONT ON SHEET 20 SH NO. 19

INPUT DATA BUS → 14−A1

SPARE IN 1 A9 · ROOM DOOR INTLK C9 · MAMMO FLTR INTLK A10 · SID SWITCH E C10 · SID SWITCH D A11 · SID SWITCH C C11 · SID SWITCH B A12 · SID SWITCH A C12 · TOMO MODE A13 · VRT HORIZ TOMO ON C13 · VRT MODE SELECTED A14 · SPARE IN 3 C14 · HYD FLUORO ENABLE A15 · HYD CARR IN RAD POS C15 · HYD TOMO READY/ PREPARED A16 · SPARE IN 4 C16

J3 · R69–R75, R106–R110, R104, R108 20K · C55–C63, C87–C96, C88 0.1uf 50V · U51, U47, U86, U84 1489A

SID DETENT INPUT PORT E0XCH

U43 HC533 · D1–D8 · CLK OE · Q1–Q8 → INDATA0–INDATA7 · RDC* ← 14−F8

TOMO/HYDRAJUST INPUT PORT E0XDH

U82 HC533 · D1–D8 · CLK OE · Q1–Q8 → INDATA0–INDATA7 · RDD* ← 14−F8

TOMO XRAY/ANGLE REACH A17 · ORDO RDY / DEVICE PREPC17 · ORDO ON A18 · SPARE IN 5 C18 · SPARE IN 6 A19 · SPARE IN 7 C19 · SPARE IN 8 A20 · SPARE IN 9 C20 · SPARE IN 10 A21 · 25.0 IN. SWP/TOMO BIT0 C21 · 18.7 IN. SWP/TOMO BIT1 A22 · 12.5 IN. SWP/TOMO BIT2 C22 · 6.75 IN. SWP/TOMO BIT3 A23 · FAST SPEED/TOMO BIT4 C23 · MEDIUM SPEED A24 · SLOW SPEED C24

J3 · R102, R101, R100, R99, R140, R139, R142, R141, R144, R143, R146, R145, R148, R147, R150, R149 20K · R39 5.6K · C97, C91, C98, C92, C133, C127, C134, C128, C135, C129, C136, C130, C137, C131, C138, C132 0.1uf 50V · U121, U125, U122, U126 1489A

TOMO/ORDO STATUS INPUT PORT E0XEH

U117 HC533 · D1–D8 · CLK OE · Q1–Q8 → INDATA0–INDATA7 · RDE* ← 14−F8

TOMO DATA INPUT PORT E0XFH

U118 HC533 · D1–D8 · CLK OE · Q1–Q8 → INDATA0–INDATA7 · RDF* ← 13−F6

ORDO SWP DEBOUNCE

U192 HC00 · U223 HC00 · U192 HC00 · U192 HC00 · U192 HC00 · R191 390K · U222 HC14 · C190 0.022UF 50V 5%

EXPOSE GATE* ← U298 7407 ← J1 C25 RTB5*

REVISIONS

PRINTS TO 404

MADE BY F.PIERCE_13JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN DIV OR DEPT LOCATION

46−232850−S
CONT ON SHEET 20 SH NO. 19

DRAWING NO. 46−232850−S CONT ON SHEET 21 SH NO. 20

GENERAL ELECTRIC

46−232850−S
CONT ON SHEET 21 SH NO. 20

TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX_RAD_POSITIONER_MODULE

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600
SURFACES √
TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ±, DECIMALS (3 PLACES) ±, ANGLES ±

REV A
46−232850−S
CONT ON SHEET 21 SH NO. 20

RP1 A1 A3
(SHT20 POWER DIST AND SPARE DEVICES)

J1 A30 B30 C30 C8 A9 A10 A11 C11 A12 A13 A14 A15 A16 C16 A31 B31 C31 A32 B32 C32

+15V
C453 10UF 35V
C452 0.1UF 50V
C318 10UF 35V
C295 0.1UF 50V
C273 0.1UF 50V ,C354,C356,C361, C362,C363,C405,C433
C455 10UF 35V
C454 0.1UF 50V
C319 10UF 35V
C320 0.1UF 50V
C270 0.1UF 50V ,C367,C368,C369, C410,C439
−15V

TP8 SGND

J1 A27 B27 C27 A28 B28 C28

+24VDC
C401 15UF 50V
C400 0.1UF 50V
C159 15UF 50V
C160 0.1UF 50V
C161 0.1UF 50V ,C171,C301

J2 A2 B2 C2 B10 B14 B18 B20 B22 B24 A31 B31 C31 A1 B1 C1 C5 B6 C7 B8 B12 B16 B19 B26 B28 A32 B32 C32

+5V
C235 22UF 25V 10%
C80 22UF 25V 10%
C181 22UF 25V 10%
C311 22UF 25V 10%
C5 0.1UF 50V ,C7,C9,C40,C41,C44,C45,C48,C49,,C81, C83,C85,C115,C116,C119,C120,C123,C124, C189,C193,C194,C197,C198,C201,C202, C210,C217,C220,C221,C224,C228,C229, C236,C238,C240,C241,C245,C246, C250,C251,C274,C275,C278,C279, C296,C299

TP9 LGND

DEVICE CONFIGURATIONS
ALL DEVICES SHOWN TOP VIEW

ULN2803 (+24V)
PAL16L8 PAL16R4 74HCT240 74HC533 74LS240 74LS244 8307 74HC244 74HC273 (+5V)
74HCT138 74HC139 (+5V)
7406 7407 1489 74HC00 74HC14 (+5V)
TL072 (+15V, −15V)
CD4051 (+15V)

MJE200 (E C B)
0P−421 (+15V, −15V)
OP−07 (+15V, −15V)
J309 (G)
J270 (S)
2N3904 2N3906 (C)
LF398 (+15V, −15V)

UNUSED DEVICES

U222 HC14
U222 HC14
U243 HC139 (A0, A1, EN, Y0, Y1, Y2, Y3)
U298 7407
U298 7407
U297 7407
U297 7407
U300 7406
U300 7406
U300 7406
U223 HC00

REVISIONS

PRINTS TO 404

MADE BY F.PIERCE_13JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN (DIV OR DEPT / LOCATION)

46−232850−S
CONT ON SHEET 21 SH NO. 20

DRAWING NO. 46−232850−S CONT ON SHEET22 SH NO. 21

RP1 A1 A3
SHT 21, PAL 1
MULTIBUS CONTROL PAL, PAL16R4

GENERAL ELECTRIC

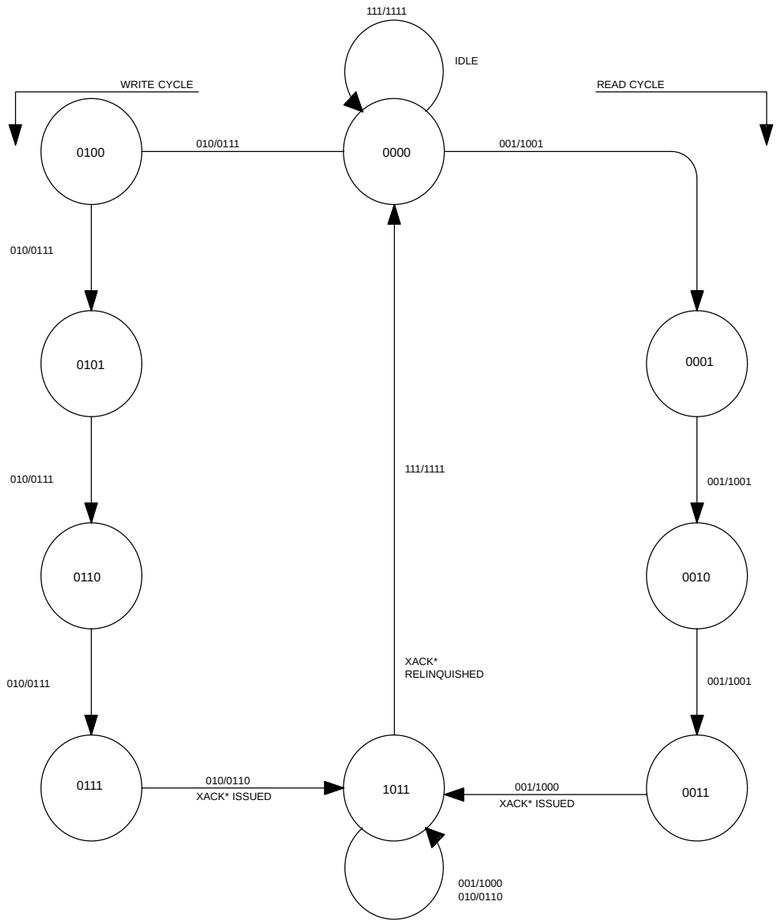
46−232850−S CONT ON SHEET22 SH NO. 21

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600 | SURFACES √ | TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± | DECIMALS (3 PLACES) ± | ANGLES ±

REV A 46−232850−S CONT ON SHEET22 SH NO. 21

TITLE SCHEMATIC DIAGRAM
RAD−POSITIONER−INTERFACE
FIRST MADE FOR SCX−RAD−POSITIONER−MODULE
P/L ISSUED

SIMPLIFIED STATE DIAGRAM



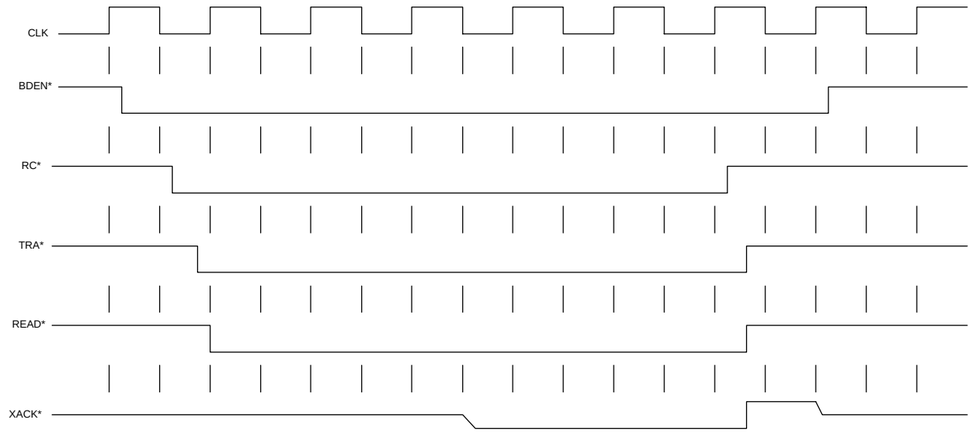
KEY:

EACH STATE XXXX = XEN, WREN, S1, S0

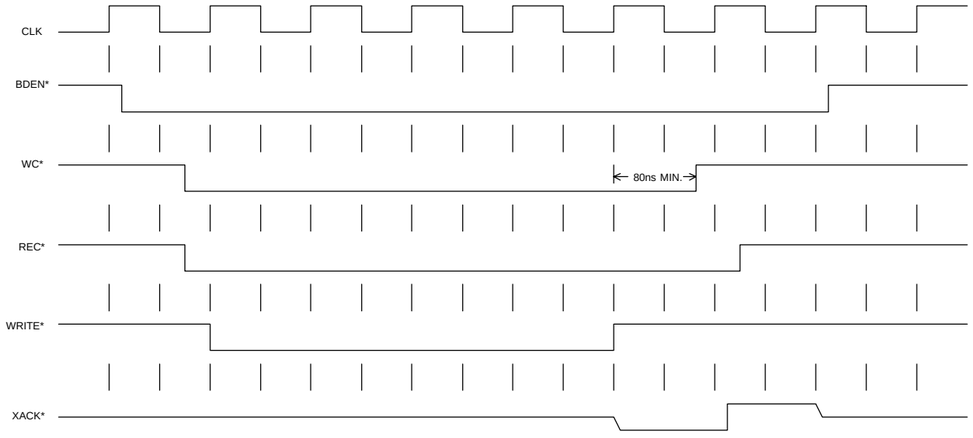
INPUTS YYY = BDEN*, RC*, WC*

OUTPUTS ZZZZ = TRA*, REC*, READ*, WRITE*, XACK*

READ CYCLE TIMING



WRITE CYCLE TIMING

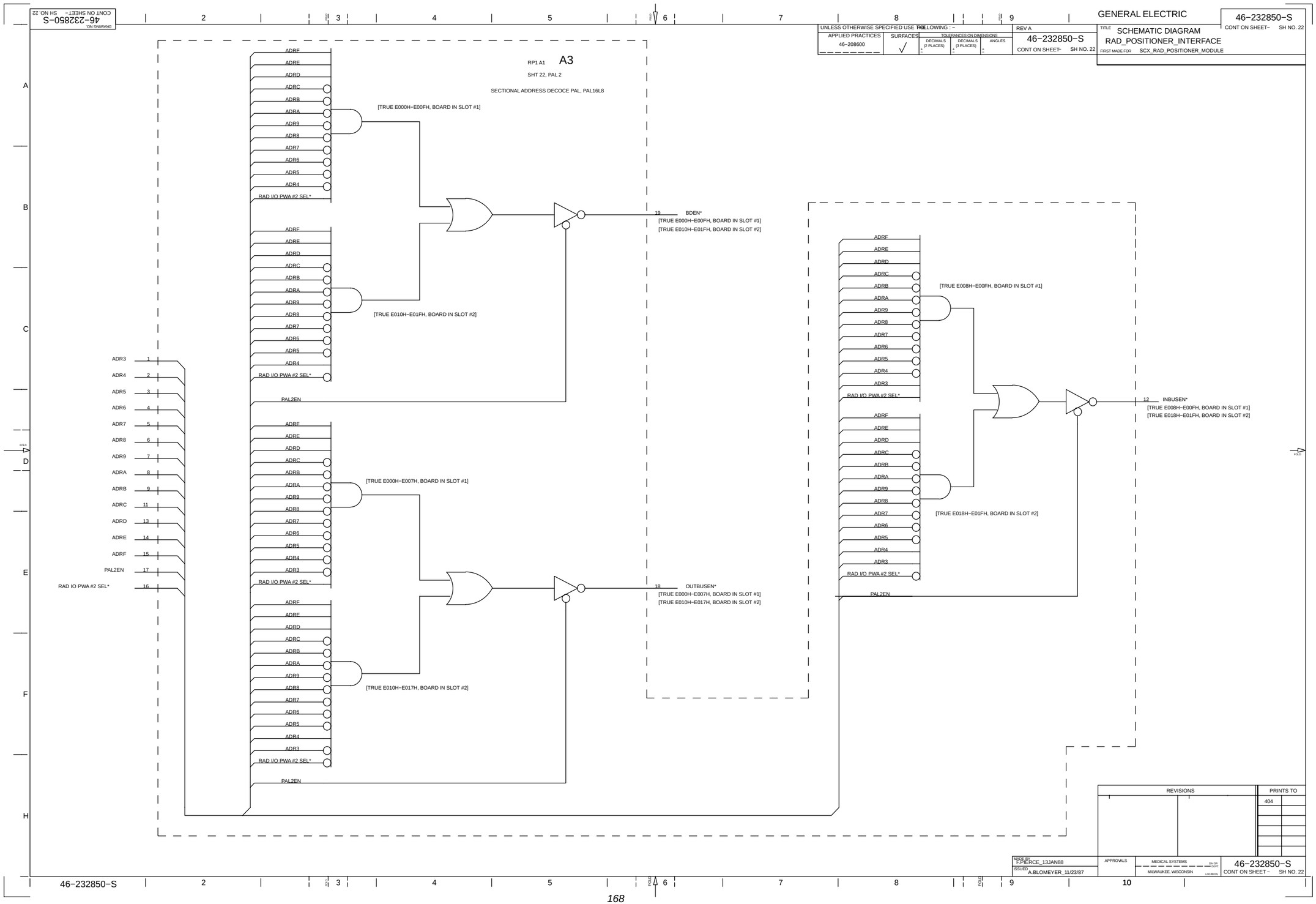


REVISIONS | PRINTS TO 404

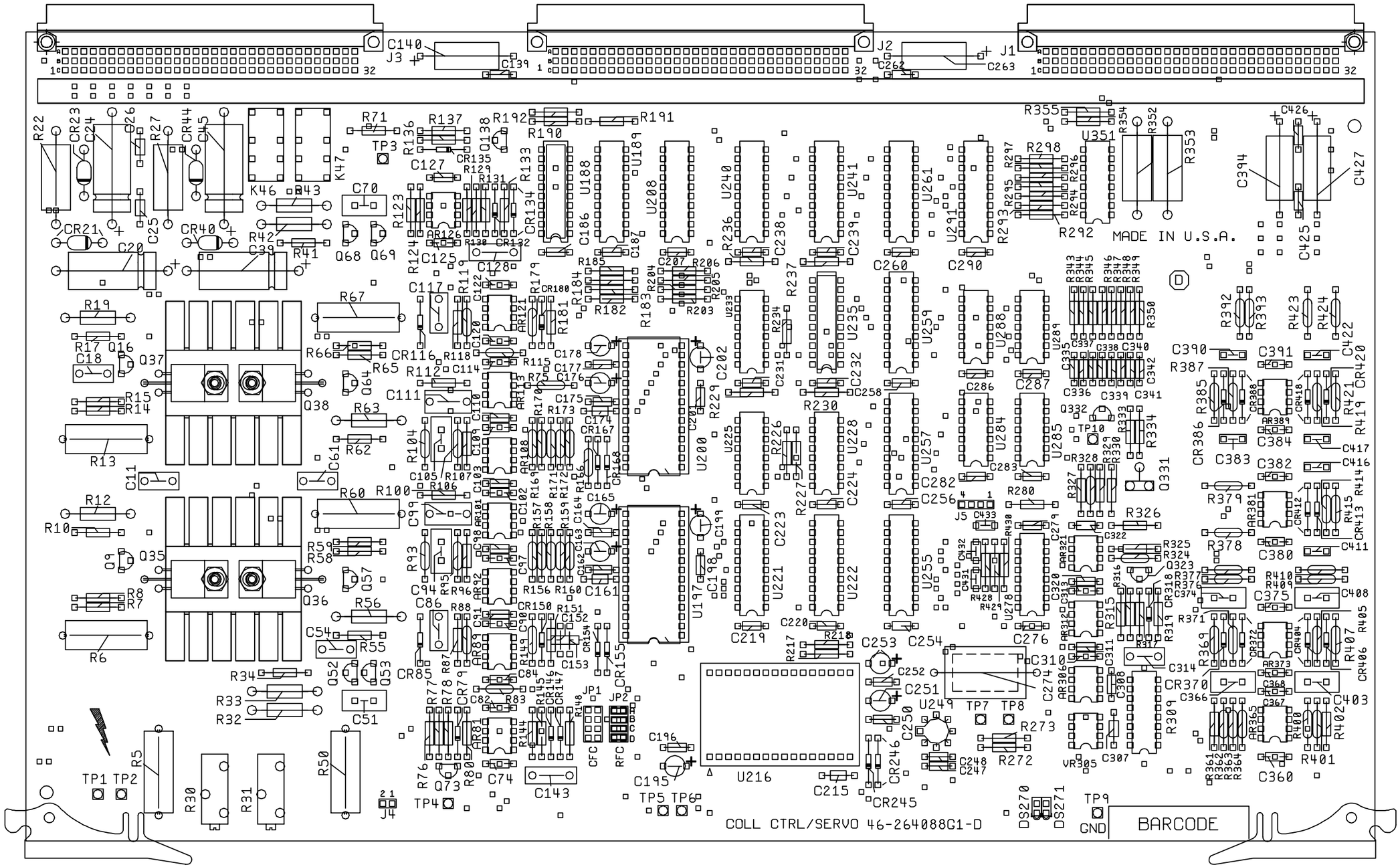
MADE BY F.PIERCE_13JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS DIV OR DEPT
MILWAUKEE, WISCONSIN LOCATION

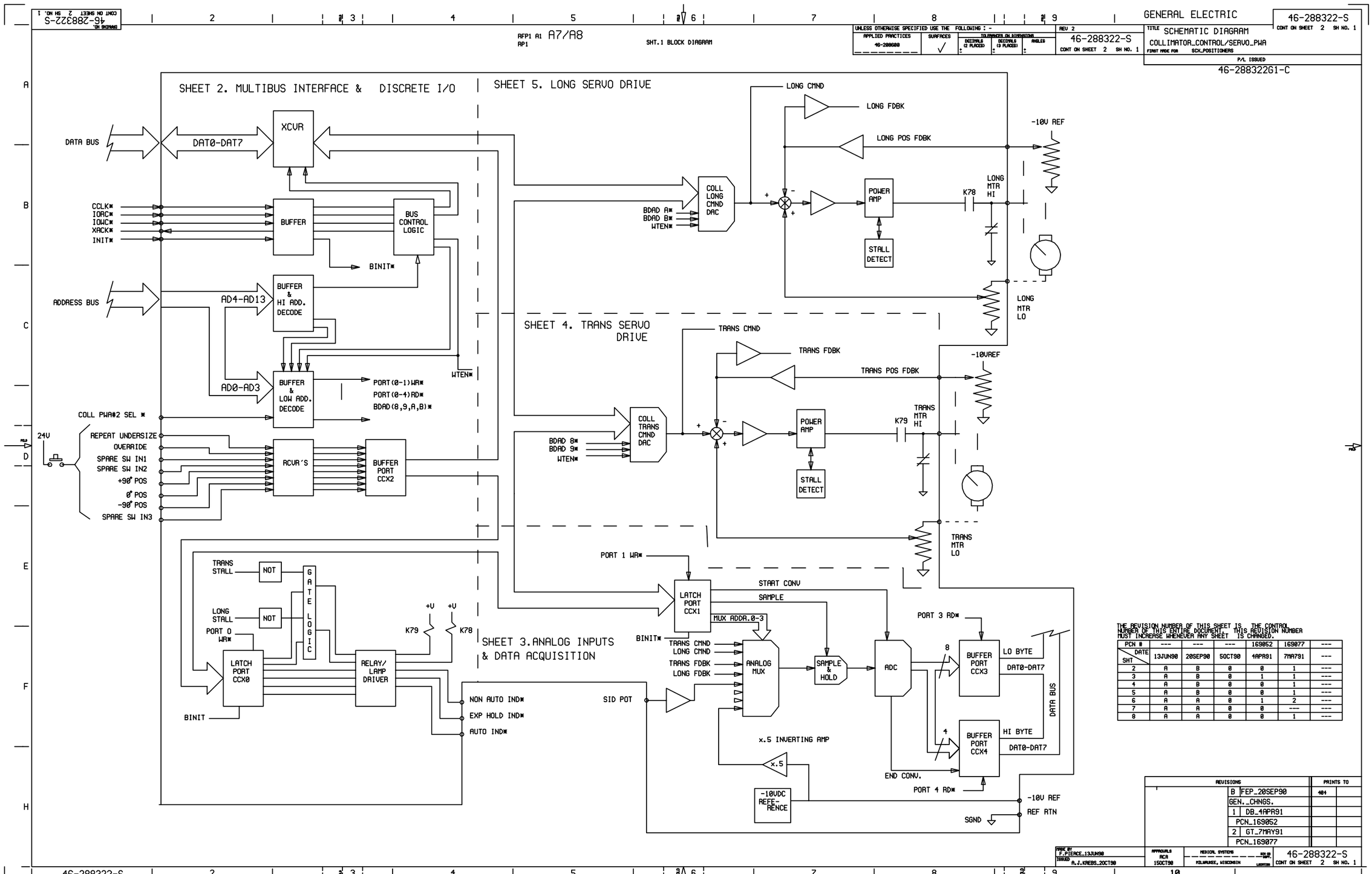
46−232850−S CONT ON SHEET22 SH NO. 21

46−232850−S


DRAWING NO. 46−232850−S CONT ON SHEET− SH NO. 22
GENERAL ELECTRIC
46−232850−S
CONT ON SHEET− SH NO. 22
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : −
APPLIED PRACTICES 46−208600
SURFACES
TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ± ; DECIMALS (3 PLACES) ± ; ANGLES ±
REV A
46−232850−S
CONT ON SHEET− SH NO. 22
TITLE SCHEMATIC DIAGRAM
RAD_POSITIONER_INTERFACE
FIRST MADE FOR SCX_RAD_POSITIONER_MODULE
RP1 A1 A3
SHT 22, PAL 2
SECTIONAL ADDRESS DECOCE PAL, PAL16L8
[TRUE E000H−E00FH, BOARD IN SLOT #1]
[TRUE E010H−E01FH, BOARD IN SLOT #2]
[TRUE E000H−E007H, BOARD IN SLOT #1]
[TRUE E010H−E017H, BOARD IN SLOT #2]
[TRUE E008H−E00FH, BOARD IN SLOT #1]
[TRUE E018H−E01FH, BOARD IN SLOT #2]
ADRF
ADRE
ADRD
ADRC
ADRB
ADRA
ADR9
ADR8
ADR7
ADR6
ADR5
ADR4
ADR3
RAD I/O PWA #2 SEL*
PAL2EN
RAD IO PWA #2 SEL*
19 BDEN*
18 OUTBUSEN*
12 INBUSEN*
REVISIONS
PRINTS TO
404
MADE BY FPIERCE_13JAN88
ISSUED A.BLOMEYER_11/23/87
APPROVALS
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
46−232850−S
CONT ON SHEET− SH NO. 22

SECTION 23
SKL RPM A1 A7/A8, 46−288322G1 (COLLIMATOR CONTROL/SERVO)



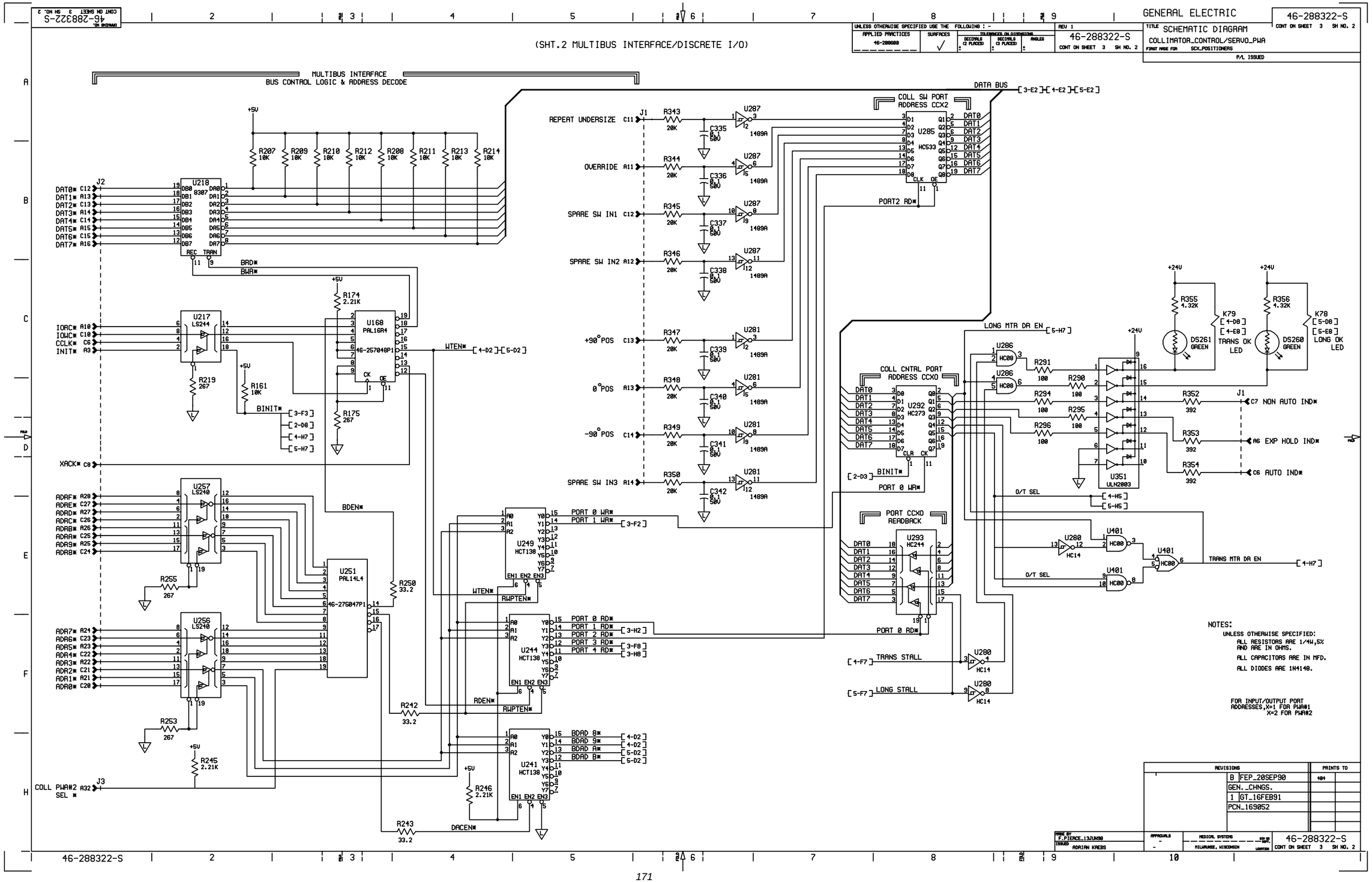


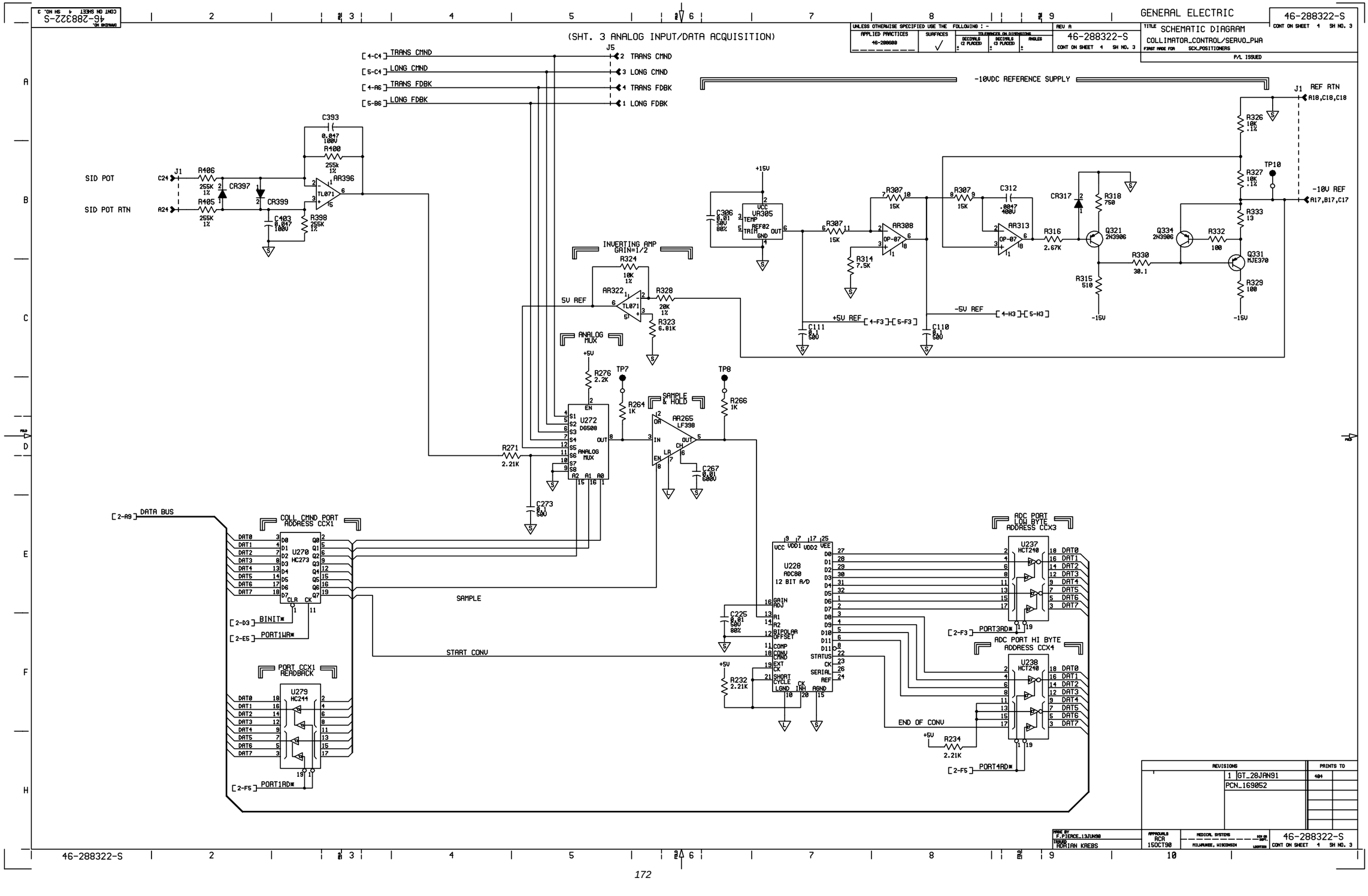
THE REVISION NUMBER OF THIS SHEET IS THE CONTROL NUMBER OF THIS ENTIRE DOCUMENT. THIS REVISION NUMBER MUST INCREASE WHENEVER ANY SHEET IS CHANGED.

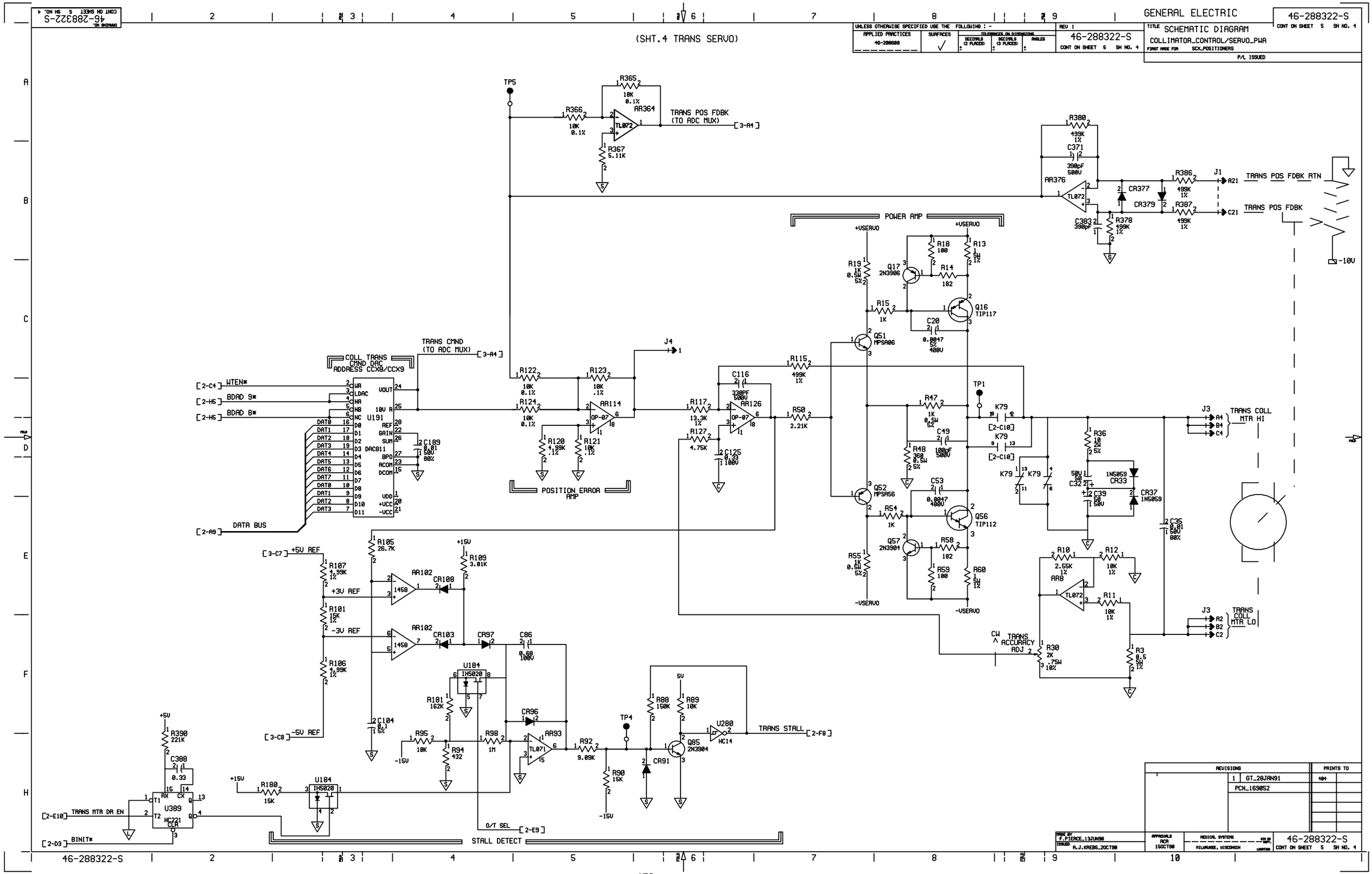
PCN #				169052	169077	
SHT \ DATE	13JUN90	20SEP90	50CT90	4APR91	7MAY91	---
2	A	B	0	0	1	---
3	A	B	0	1	1	---
4	A	B	0	0	1	---
5	A	B	0	0	1	---
6	A	A	0	1	2	---
7	A	A	0	0	---	---
8	A	A	0	0	1	---

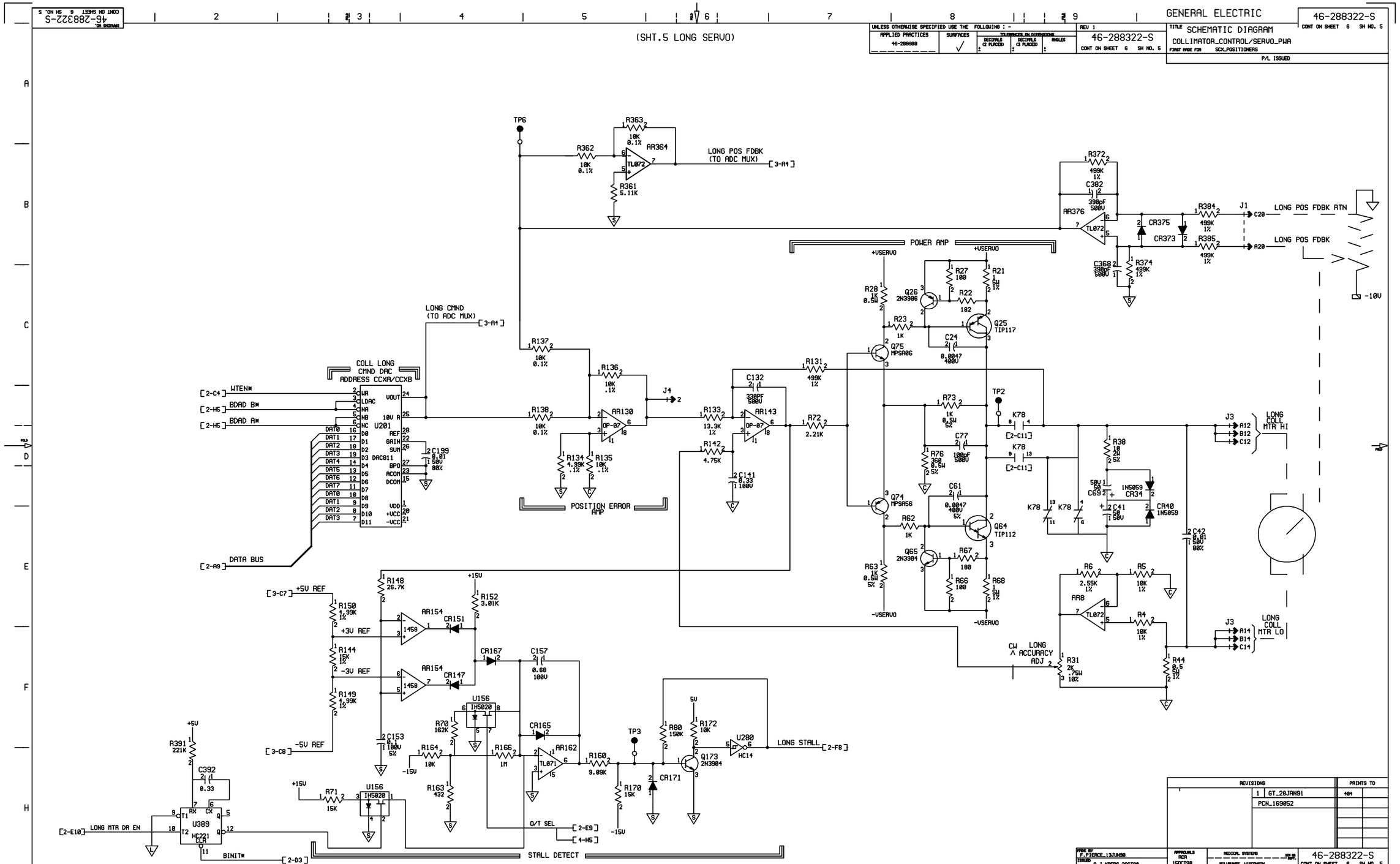
REVISIONS		PRINTS TO
B	FEP_20SEP90	404
GEN._CHNGS.		
1	DB_4APR91	
PCN_169052		
2	GT_7MAY91	
PCN_169077		

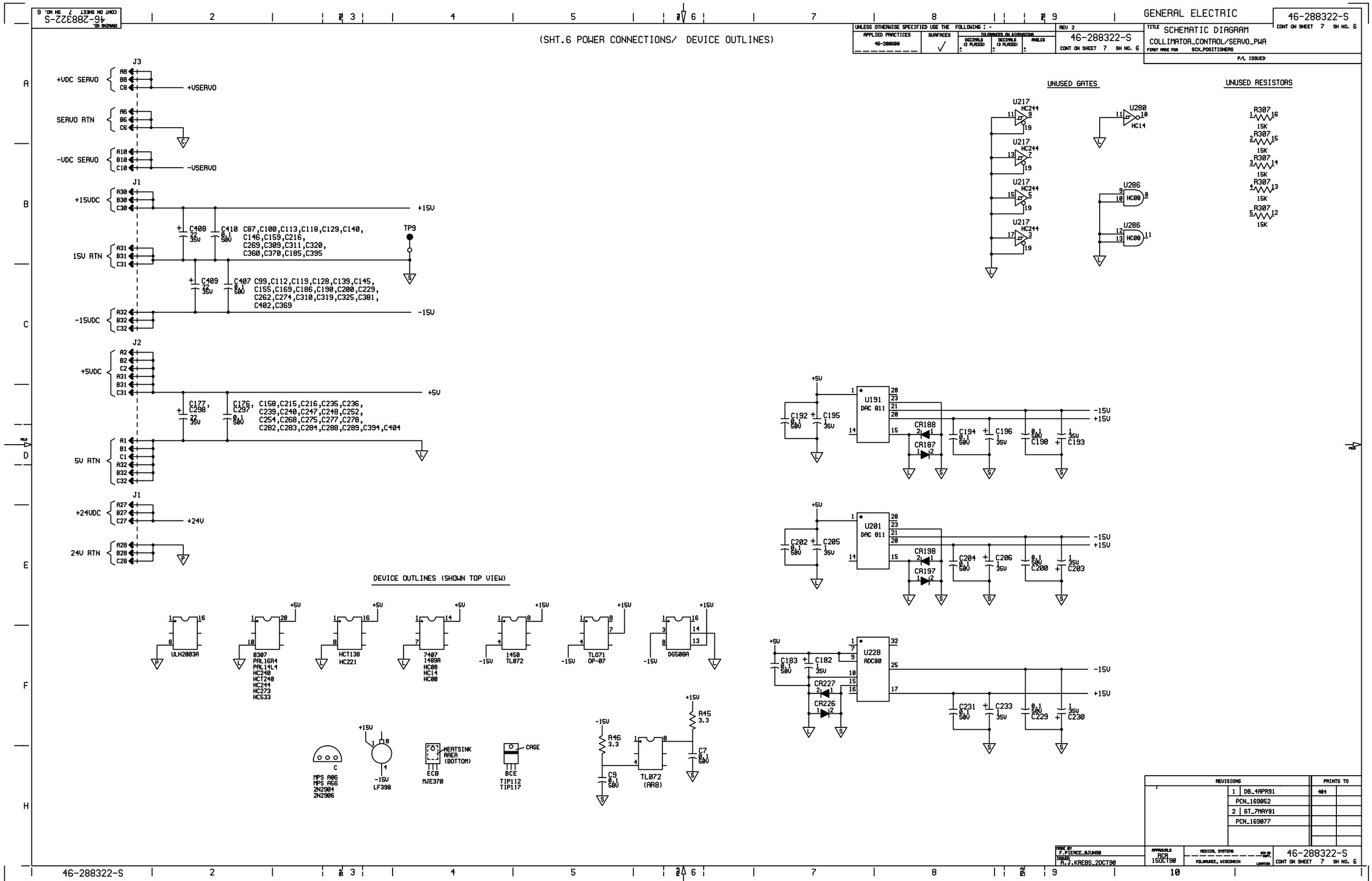
DRAWN BY F.PIERCE_13JUN90
ISSUED A.J.KREBS_20CT90
APPROVALS RCN 150CT90
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN
SCALE NONE DEPT. LOCATION
46-288322-S CONT ON SHEET 2 SH NO. 1


(SHT.2 MULTIBUS INTERFACE/DISCRETE I/O)
MULTIBUS INTERFACE
BUS CONTROL LOGIC & ADDRESS DECODE
DATA BUS
COLL SW PORT
ADDRESS CCX2
COLL CNTRL PORT
ADDRESS CCX0
PORT CCX0
READBACK
LONG MTR DR EN
TRANS MTR DR EN
REPEAT UNDERSIZE
OVERRIDE
SPARE SW IN1
SPARE SW IN2
+90°POS
0°POS
-90°POS
SPARE SW IN3
PORT2 RD*
PORT 0 WR*
PORT 1 WR*
PORT 0 RD*
PORT 1 RD*
PORT 2 RD*
PORT 3 RD*
PORT 4 RD*
TRANS STALL
LONG STALL
BINIT*
WTEN*
RWPTEN*
RDEN*
BDEN*
DACEN*
BAD*
BWA*
XACK*
BDAD 8*
BDAD 9*
BDAD A*
BDAD B*
TRANS OK LED
LONG OK LED
C7 NON AUTO IND*
A6 EXP HOLD IND*
C6 AUTO IND*
O/T SEL
NOTES:
UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS ARE 1/4W,5% AND ARE IN OHMS.
ALL CAPACITORS ARE IN MFD.
ALL DIODES ARE 1N4148.
FOR INPUT/OUTPUT PORT ADDRESSES,X=1 FOR PWA#1
X=2 FOR PWA#2
GENERAL ELECTRIC
46-288322-S
SCHEMATIC DIAGRAM
COLLIMATOR_CONTROL/SERVO_PWA
SCX_POSITIONERS
P/L ISSUED
REVISIONS
B FEP_20SEP90
GEN._CHNGS.
1 GT_16FEB91
PCN_169052
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN


GENERAL ELECTRIC
46-288322-S
SCHEMATIC DIAGRAM
COLLIMATOR_CONTROL/SERVO_PWA
(SHT. 3 ANALOG INPUT/DATA ACQUISITION)
J5
TRANS CMND
LONG CMND
TRANS FDBK
LONG FDBK
-10VDC REFERENCE SUPPLY
J1
REF RTN
-10V REF
SID POT
SID POT RTN
INVERTING AMP GAIN=1/2
5V REF
ANALOG MUX
SAMPLE & HOLD
+15V
-5V REF
+5V REF
-15V
DATA BUS
COLL CMND PORT ADDRESS CCX1
PORT CCX1 READBACK
BINIT*
PORT1WR*
PORT1RD*
SAMPLE
START CONV
ADC PORT LOW BYTE ADDRESS CCX3
ADC PORT HI BYTE ADDRESS CCX4
PORT3RD*
PORT4RD*
END OF CONV
REVISIONS
1 GT_28JAN91
PCN_169052
PRINTS TO
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN


GENERAL ELECTRIC
46-288322-S
SCHEMATIC DIAGRAM
COLLIMATOR_CONTROL/SERVO_PWA
(SHT.4 TRANS SERVO)
TRANS POS FDBK (TO ADC MUX)
TRANS CMND (TO ADC MUX)
POWER AMP
+VSERVO
-VSERVO
TRANS POS FDBK RTN
TRANS POS FDBK
-10V
TRANS COLL MTR HI
TRANS COLL MTR LO
TRANS ACCURACY ADJ
COLL TRANS CMND DAC ADDRESS CCX8/CCX9
DATA BUS
+5V REF
+3V REF
-3V REF
-5V REF
POSITION ERROR AMP
STALL DETECT
TRANS STALL
TRANS MTR DR EN
BINIT*
WTEN*
BDAD 9*
BDAD 8*
0/T SEL
REVISIONS
1 GT_28JAN91
PCN_169052
PRINTS TO
404
DRAWN BY F.PIERCE_13JAN88
ISSUED R.J.KREBS_20CT88
APPROVALS RCR 15OCT88
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
46-288322-S
CONT ON SHEET 5 SH NO. 4


GENERAL ELECTRIC
46-288322-S
SCHEMATIC DIAGRAM
COLLIMATOR_CONTROL/SERVO_PWA
(SHT.5 LONG SERVO)
POWER AMP
POSITION ERROR AMP
STALL DETECT
LONG CMND (TO ADC MUX)
LONG POS FDBK (TO ADC MUX)
LONG POS FDBK RTN
LONG POS FDBK
LONG COLL MTR HI
LONG COLL MTR LO
CW LONG ACCURACY ADJ
COLL LONG CMND DAC ADDRESS CCXA/CCXB
DATA BUS
LONG MTR DR EN
LONG STALL
O/T SEL
BINIT#
WTEN#
BDAD B#
BDAD A#
+VSERVO
-VSERVO
+15V
-15V
+5V
+5V REF
+3V REF
-3V REF
-5V REF
+5V
-10V
TL072
OP-07
TL071
HC14
HC221
IH5020
1458
2N3906
2N3904
MPSA06
MPSA56
TIP117
TIP112
1N5059
REVISIONS
PRINTS TO
1 GT_28JAN91
PCN_169052
DRAWN BY F.PIERCE_13JUN98
ISSUED R.J.KNEBS_20CT98
APPROVALS PCN 15OCT98
MEDICAL SYSTEMS
MILWAUKEE, WISCONSIN
46-288322-S
CONT ON SHEET 6 SH NO. 5



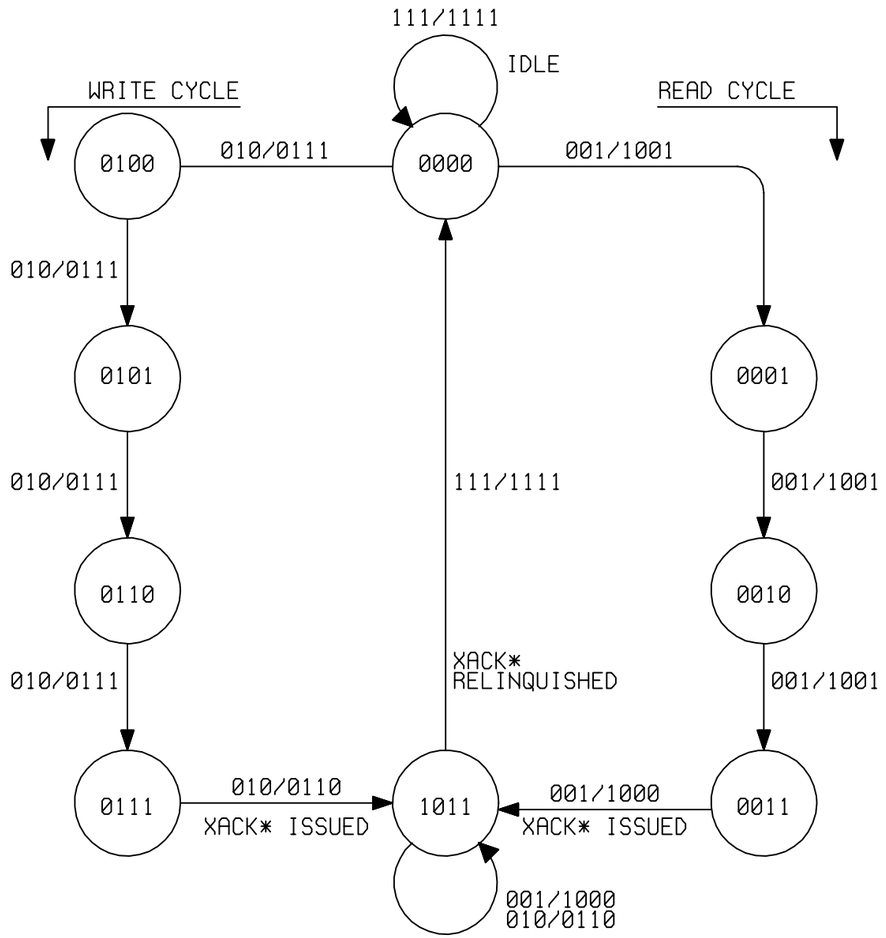
REVISIONS			PRINTS TO
1	DB_14APR91		484
	PCN_169052		
2	GT_7MAY91		
	PCN_169077		

DRAWN BY F.PIERCE_BJUN90
TRACED R.J.KREBS_20CT90
APPROVALS RCA 15OCT90
MEDICAL SYSTEMS MILWAUKEE, WISCONSIN
46-288322-S CONT ON SHEET 7 SH NO. 6

DRAWING NO. 46-288322-S CONT ON SHEET 8 SH NO. 7
GENERAL ELECTRIC
46-288322-S CONT ON SHEET 8 SH NO. 7
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : - APPLIED PRACTICES 46-288688 | SURFACES ✓ | TOLERANCES ON DIMENSIONS DECIMALS (2 PLACES) ± DECIMALS (3 PLACES) ± ANGLES ± | REV A | 46-288322-S CONT ON SHEET 8 SH NO. 7
TITLE SCHEMATIC DIAGRAM COLLIMATOR_CONTROL/SERVO_PWR
FIRST MADE FOR SCX-positioners
P/L ISSUED

MULTIBUS INTERFACE PAL (PAL16R4)

SIMPLIFIED STATE DIAGRAM



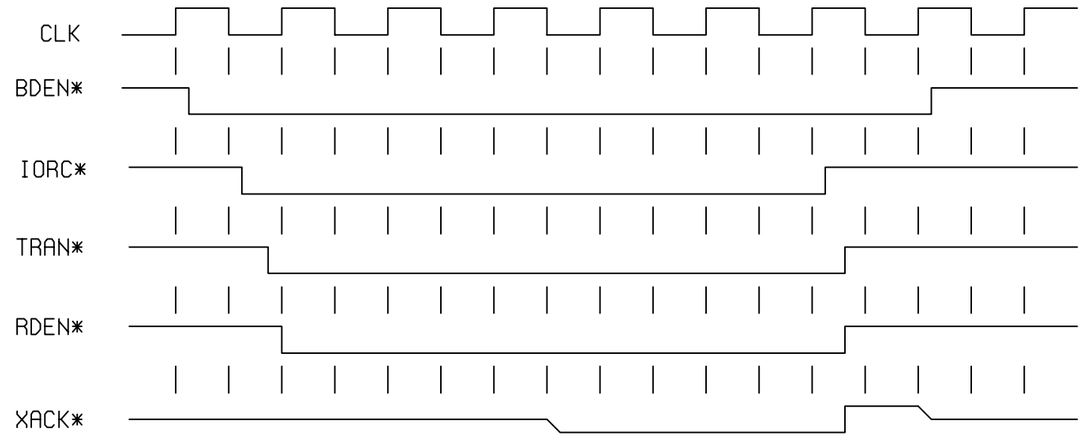
KEY:

EACH STATE XXXX = XEN, WREN, S1, S0

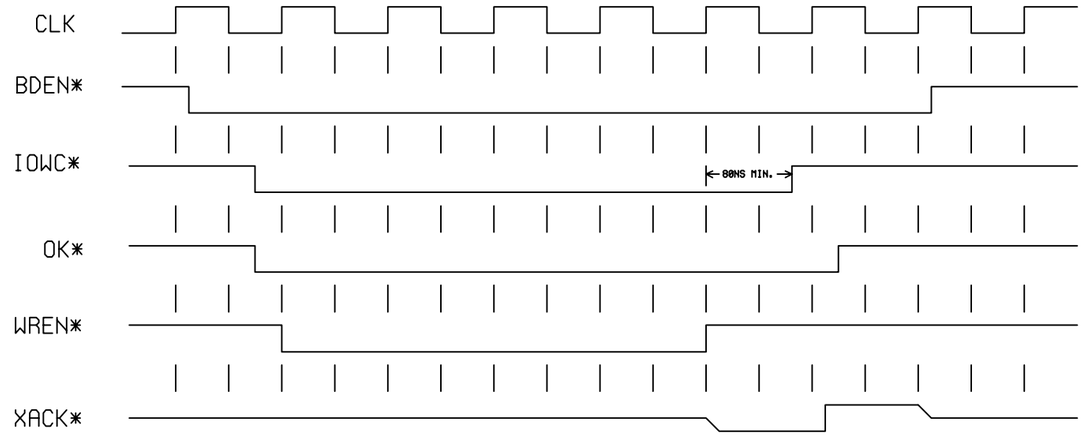
INPUTS YYY = BDEN*, IORC*, IOWC*

OUTPUTS ZZZZ = REC*, TRAN*, RDEN*, XACK*

READ CYCLE TIMING



WRITE CYCLE TIMING



REVISIONS | PRINTS TO 404

PROG. BY F:\TERACE_13JUN98 | ISSUED MORIAH KNEBS | APPROVALS - - | MEDICAL SYSTEMS MILWAUKEE, WISCONSIN | 46-288322-S CONT ON SHEET 8 SH NO. 7

GENERAL ELECTRIC

46-288322-S
CONT ON SHEET END SH NO. 8

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING : -
APPLIED PRACTICES 46-288688
SURFACES √
TOLERANCES ON DIMENSIONS: DECIMALS (2 PLACES) ±, DECIMALS (3 PLACES) ±, ANGLES ±
REV 1
46-288322-S
CONT ON SHEET END SH NO. 8

TITLE SCHEMATIC DIAGRAM
COLLIMATOR_CONTROL/SERVO_PWA
FIRST MADE FOR SCX_POSITIONERS
P/L ISSUED

DRAWING NO. 46-288322-S
CONT ON SHEET END SH NO. 8

SHT.8 PAL2

SECTIONAL ADDRESS DECODE PAL (PAL14L4)

ADAF
ADAE
ADAD
ADAC
ADAB
ADAA
ADA9
ADA8
ADA7
ADA6
ADA5
ADA4
ADA3
COLL PWA#2 SEL

TRUE =1 FOR
[CC1X AND PWA IN COLL SLOT #1]

TRUE =1 FOR
[CC2X AND PWA IN COLL SLOT#2]

14 BDEN#

TRUE = 0 FOR
[CC1X AND PWA IN COLL SLOT#1] OR
[CC2X AND PWA IN COLL SLOT#2]

COLL PWA#2 SEL# 19
ADA3 18
ADA4 13
ADA5 12
ADA6 11
ADA7 9
ADA8 8
ADA9 7
ADAA# 6
ADAB# 5
ADAC# 4
ADAD# 3
ADAE# 2
ADAF# 1

TRUE = 1 FOR
[CC10-CC17 AND PWA IN COLL SLOT#1]

TRUE = 1 FOR
[CC20-CC27 AND PWA IN COLL SLOT#2]

15 AWPTEN#

TRUE = 0 FOR
[CC10-CC17 AND PWA IN COLL SLOT#1] OR
[CC20-CC27 AND PWA IN COLL SLOT#2]

TRUE =1 FOR
[CC18-CC1F AND PWA IN COLL SLOT#1]

TRUE = 1 FOR
[CC28-CC2F AND PWA IN COLL SLOT#2]

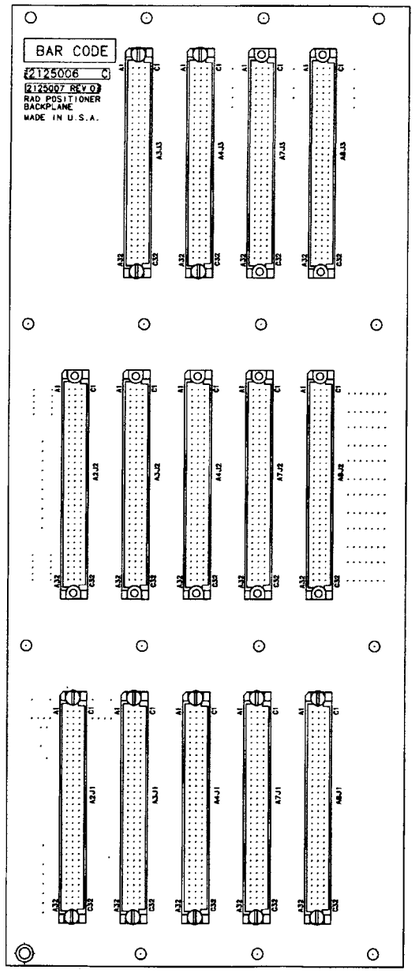
16 DACEN#

TRUE = 0 FOR
[CC1F-CC18 AND PWA IN COLL SLOT#1] OR
[CC2F-CC28 AND PWA IN COLL SLOT#2]

REVISIONS		PRINTS TO
1	GT_28JAN91	404
	PCN_169052	

PAGE SET: F_FIENCE_13JAN88
ISSUED: ADRIAN KREBS
APPROVALS: ACR 15OCT90
MEDICAL SYSTEMS, MILWAUKEE, WISCONSIN
46-288322-S
CONT ON SHEET END SH NO. 8

SECTION 24
SKL RPM A1 A20, 2125006 (RAD POSITIONER BACKPLANE)



SHT. 1 CONT. 2
2125006SCH

SHEET_NAME	SHT NUM	REV
RAD BACKPLANE	1	A
SLOT A1	2	A
SLOT A2	3	A
SLOT A3	4	A
SLOT A4	5	A
SLOT A5	6	A
TERMINATION	7	A

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2125006 A.
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.25W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------		

BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/adventx_ii/rad_backplane

BLOCK SHT 7 OF 7

REV 1 PCN DESCRIPTION
MADE BY DATE APPR BY DATE

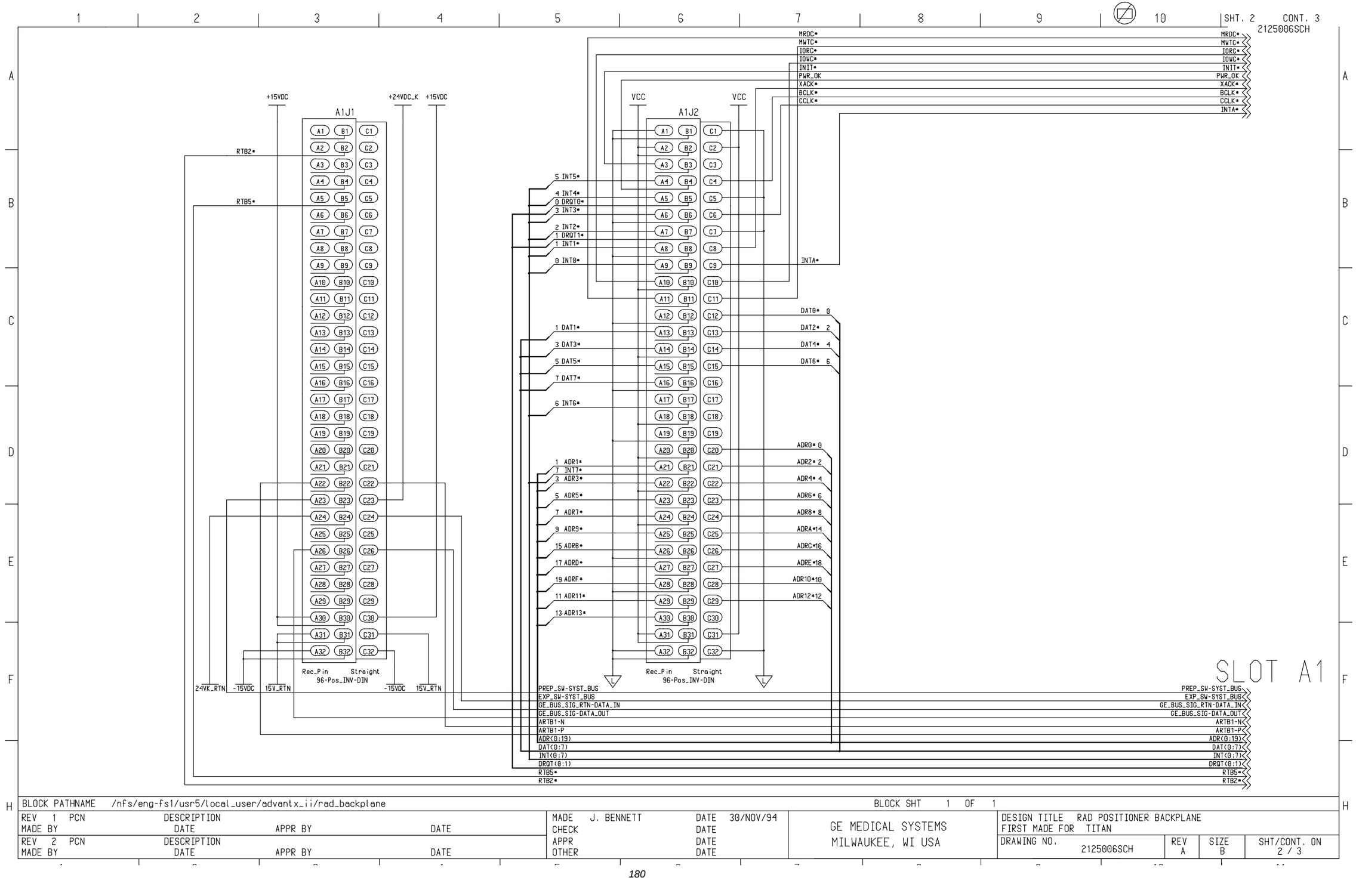
REV 2 PCN DESCRIPTION
MADE BY DATE APPR BY DATE

MADE J. BENNETT DATE 30/NOV/94
CHECK DATE
APPR DATE
OTHER DATE

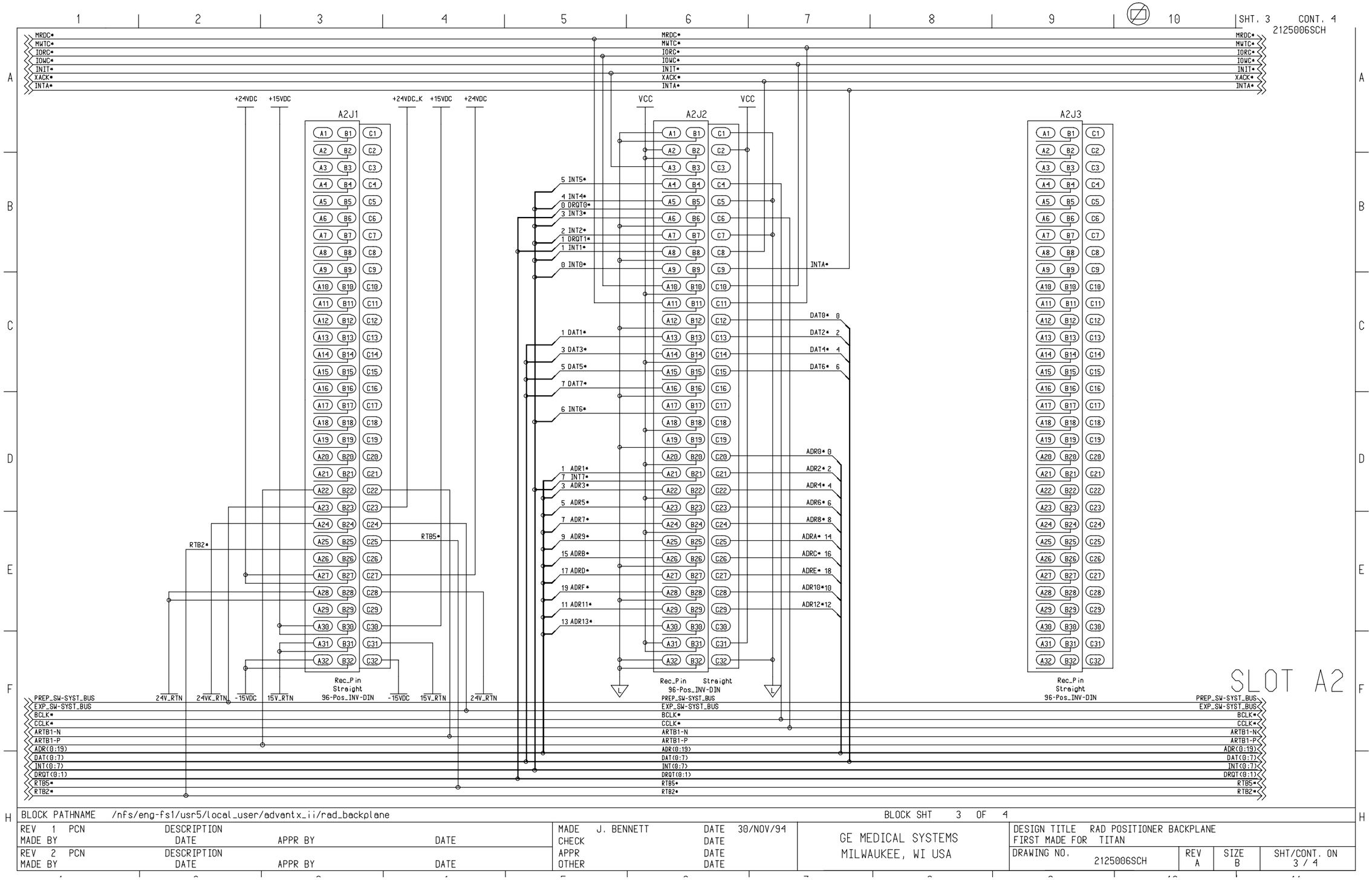
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA

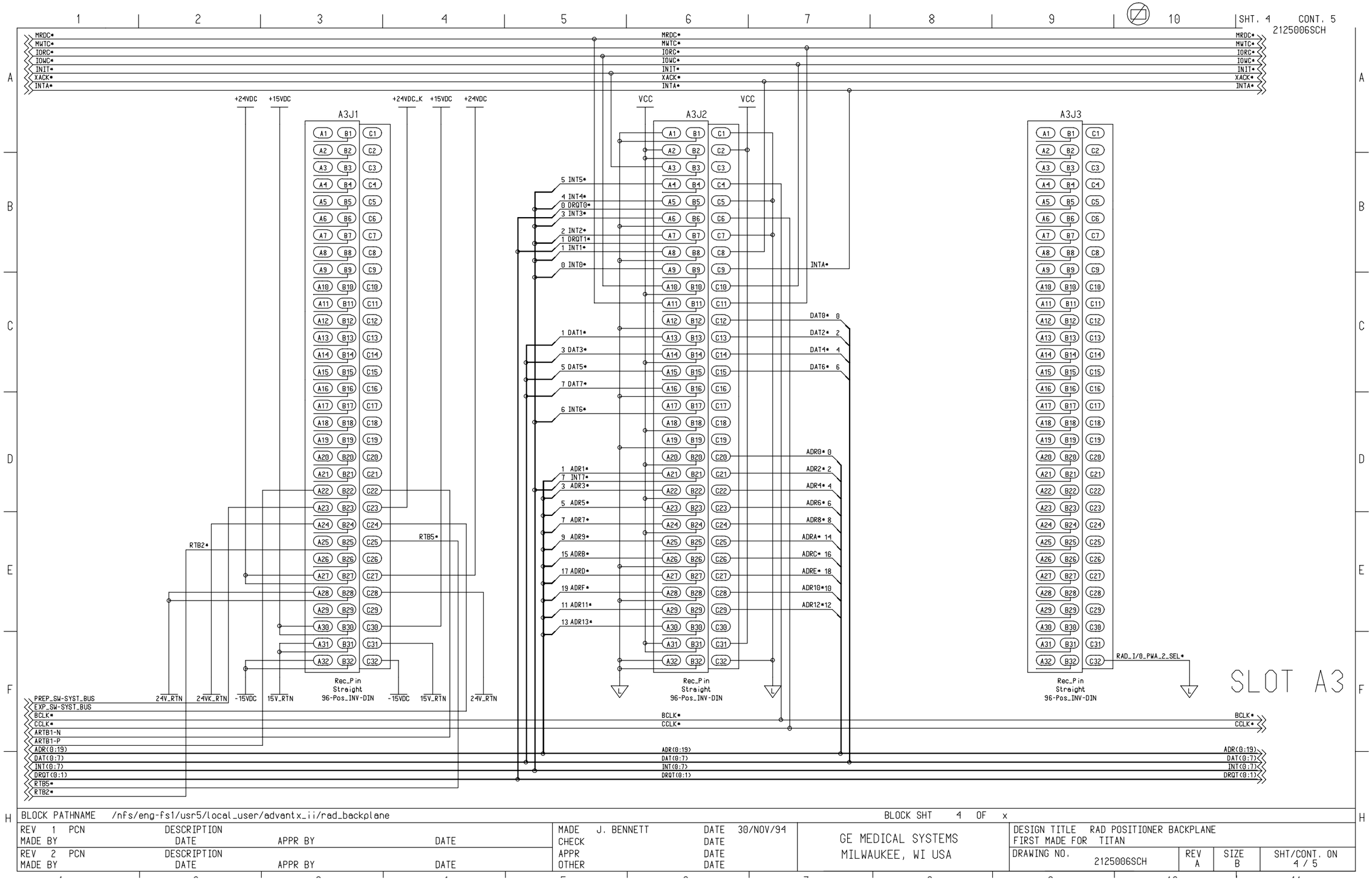
DESIGN TITLE RAD POSITIONER BACKPLANE
FIRST MADE FOR TITAN

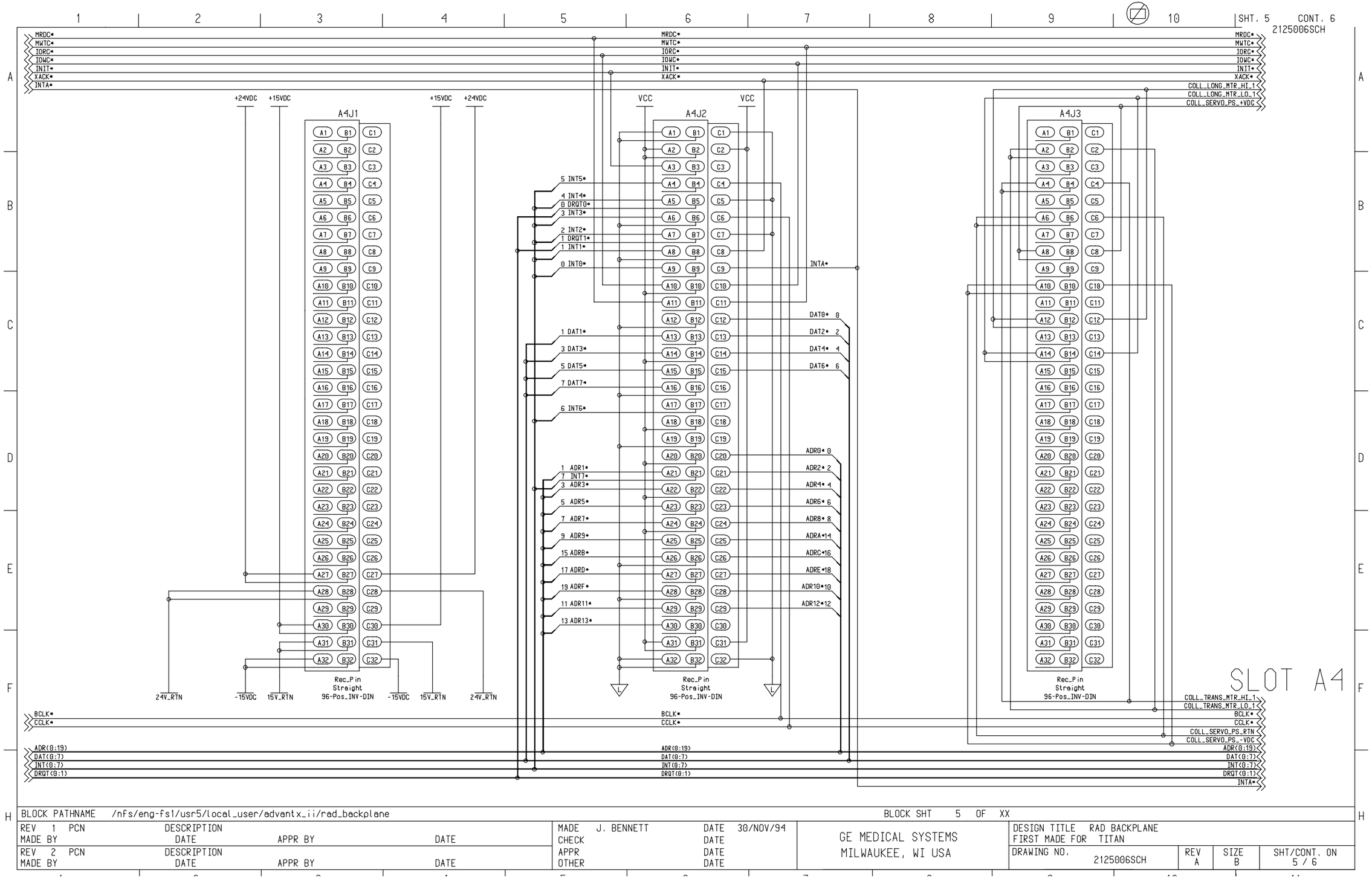
DRAWING NO.	REV	SIZE	SHT/CONT. ON
2125006SCH	A	B	1 / 2



BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/adventx_ii/rad_backplane				BLOCK SHT 1 OF 1	
REV 1 PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE J. BENNETT CHECK APPR OTHER	DATE 30/NOV/94 DATE DATE DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE RAD POSITIONER BACKPLANE FIRST MADE FOR TITAN	
REV 2 PCN DESCRIPTION MADE BY DATE APPR BY DATE				DRAWING NO. 2125006SCH	REV A / SIZE B / SHT/CONT. ON 2 / 3


SHT. 3 CONT. 4
2125006SCH
MRDC*
MWTC*
IORC*
IOWC*
INIT*
XACK*
INTA*
+24VDC
+15VDC
+24VDC_K
VCC
A2J1
A2J2
A2J3
5 INT5*
4 INT4*
0 DRQT0*
3 INT3*
2 INT2*
1 DRQT1*
1 INT1*
0 INT0*
1 DAT1*
3 DAT3*
5 DAT5*
7 DAT7*
6 INT6*
1 ADR1*
7 INT7*
3 ADR3*
5 ADR5*
7 ADR7*
9 ADR9*
15 ADRB*
17 ADRD*
19 ADRF*
11 ADR11*
13 ADR13*
DAT0* 0
DAT2* 2
DAT4* 4
DAT6* 6
ADR0* 0
ADR2* 2
ADR4* 4
ADR6* 6
ADR8* 8
ADRA* 14
ADRC* 16
ADRE* 18
ADR10* 10
ADR12* 12
RTB2*
RTB5*
Rec_Pin Straight 96-Pos_INV-DIN
PREP_SW-SYST_BUS
EXP_SW-SYST_BUS
BCLK*
CCLK*
ARTB1-N
ARTB1-P
ADR(0:19)
DAT(0:7)
INT(0:7)
DRQT(0:1)
RTB5*
RTB2*
24V_RTN
24VK_RTN
-15VDC
15V_RTN
SLOT A2
BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/adventx_ii/rad_backplane
BLOCK SHT 3 OF 4
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE J. BENNETT
DATE 30/NOV/94
CHECK
DATE
APPR
DATE
OTHER
DATE
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE RAD POSITIONER BACKPLANE
FIRST MADE FOR TITAN
DRAWING NO. 2125006SCH
REV A
SIZE B
SHT/CONT. ON 3 / 4


SHT. 4 CONT. 5
2125006SCH
MRDC*
MWTC*
IORC*
IOWC*
INIT*
XACK*
INTA*
+24VDC
+15VDC
+24VDC_K
VCC
A3J1
A3J2
A3J3
5 INT5*
4 INT4*
0 DRQT0*
3 INT3*
2 INT2*
1 DRQT1*
1 INT1*
0 INT0*
1 DAT1*
3 DAT3*
5 DAT5*
7 DAT7*
6 INT6*
1 ADR1*
7 INT7*
3 ADR3*
5 ADR5*
7 ADR7*
9 ADR9*
15 ADRB*
17 ADRD*
19 ADRF*
11 ADR11*
13 ADR13*
DAT0* 0
DAT2* 2
DAT4* 4
DAT6* 6
ADR0* 0
ADR2* 2
ADR4* 4
ADR6* 6
ADR8* 8
ADRA* 14
ADRC* 16
ADRE* 18
ADR10*10
ADR12*12
RTB2*
RTB5*
RAD_I/O_PWA_2_SEL*
Rec_Pin Straight 96-Pos_INV-DIN
SLOT A3
PREP_SW-SYST_BUS
EXP_SW-SYST_BUS
BCLK*
CCLK*
ARTB1-N
ARTB1-P
ADR(0:19)
DAT(0:7)
INT(0:7)
DRQT(0:1)
RTB5*
RTB2*
24V_RTN
24VK_RTN
-15VDC
15V_RTN
BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/advantx_ii/rad_backplane
BLOCK SHT 4 OF x
REV 1 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
REV 2 PCN
MADE BY
DESCRIPTION
DATE
APPR BY
DATE
MADE J. BENNETT
DATE 30/NOV/94
CHECK
DATE
APPR
DATE
OTHER
DATE
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE RAD POSITIONER BACKPLANE
FIRST MADE FOR TITAN
DRAWING NO. 2125006SCH
REV A
SIZE B
SHT/CONT. ON 4 / 5



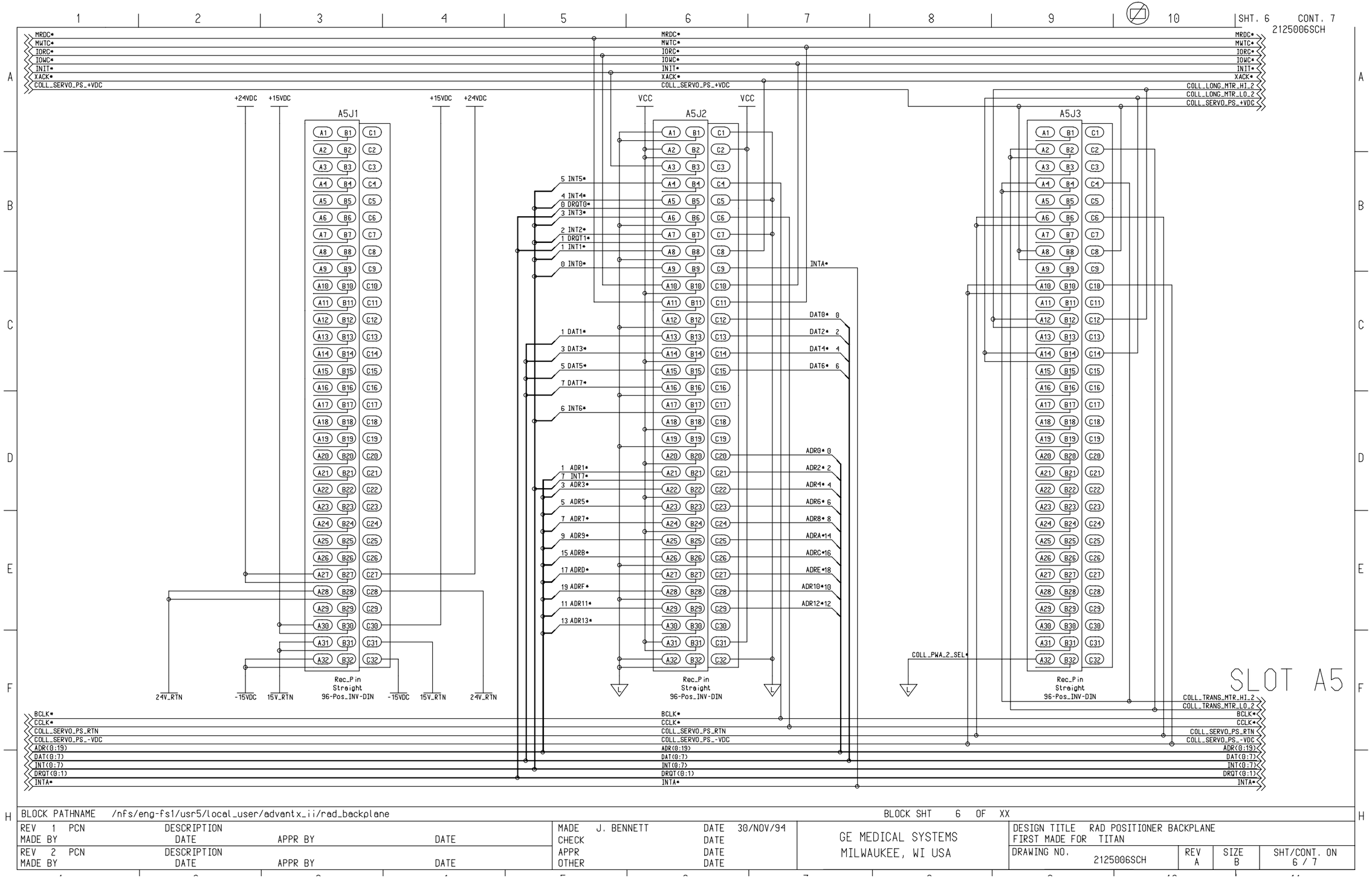
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BLOCK SHT 5 OF XX

REV 1 PCN	DESCRIPTION		MADE J. BENNETT	DATE 30/NOV/94	GE MEDICAL SYSTEMS MILWAUKEE, WI USA
MADE BY	DATE	APPR BY DATE	CHECK	DATE	
REV 2 PCN	DESCRIPTION		APPR	DATE	
MADE BY	DATE	APPR BY DATE	OTHER	DATE	

DESIGN TITLE RAD BACKPLANE
FIRST MADE FOR TITAN

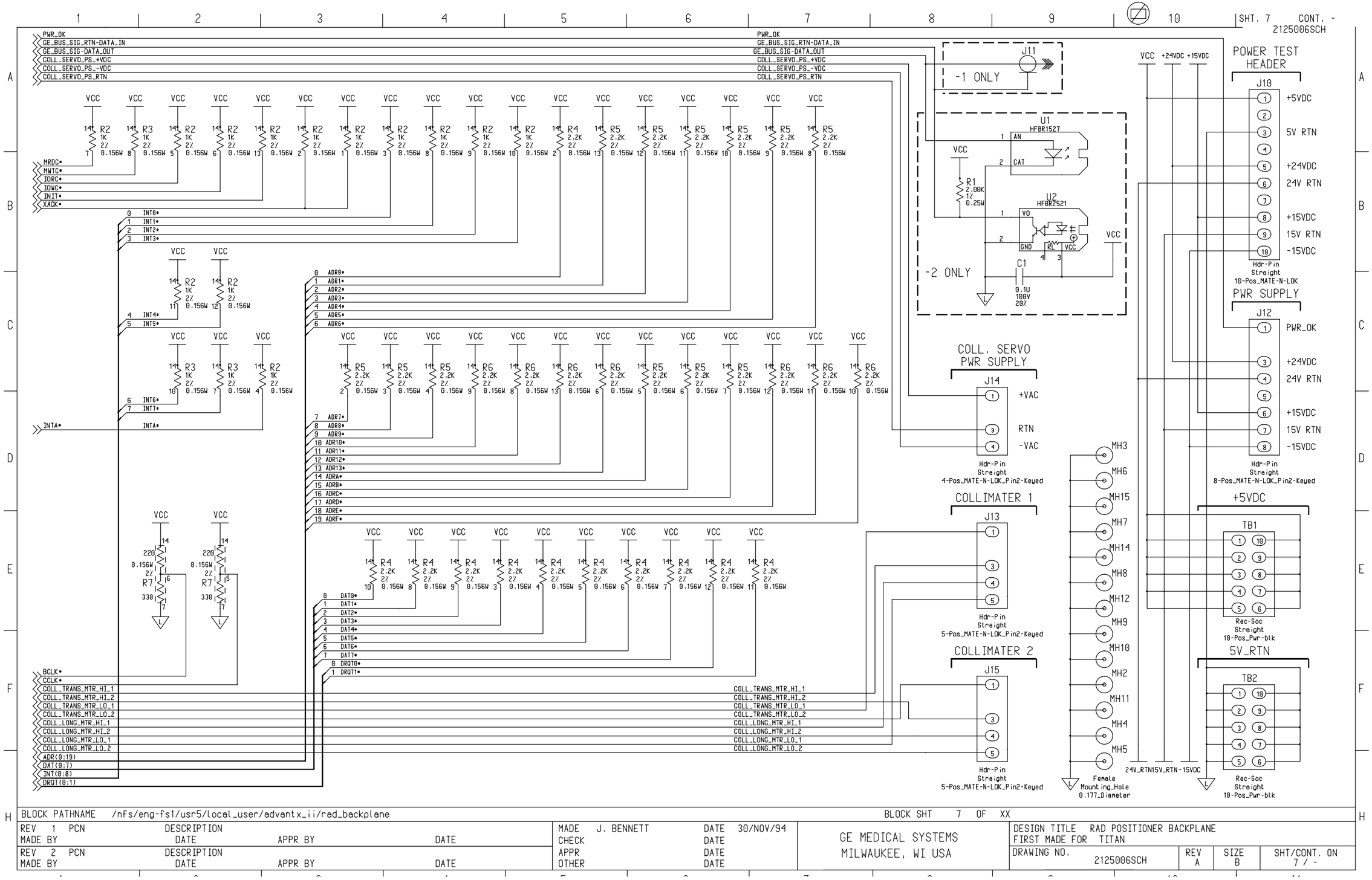
DRAWING NO.	REV	SIZE	SHT/CONT. ON
2125006SCH	A	B	5 / 6



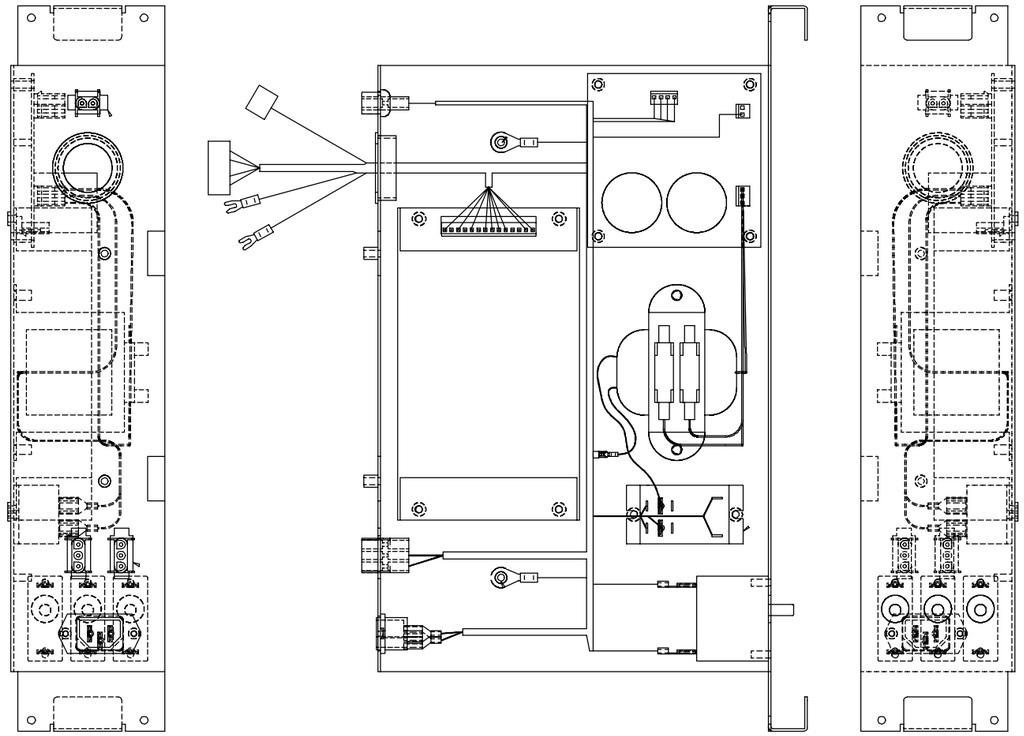
BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/adventx_ii/rad_backplane

BLOCK SHT 6 OF XX

REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE J. BENNETT CHECK APPR OTHER	DATE 30/NOV/94 DATE DATE DATE
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE RAD POSITIONER BACKPLANE FIRST MADE FOR TITAN DRAWING NO. 2125006SCH / REV A / SIZE B / SHT/CONT. ON 6 / 7


SHT. 7 CONT. - 2125006SCH
PWR_OK
GE_BUS_SIG_RTN-DATA_IN
GE_BUS_SIG-DATA_OUT
COLL_SERVO_PS_+VDC
COLL_SERVO_PS_-VDC
COLL_SERVO_PS_RTN
MRDC*
MWTC*
IORC*
IOWC*
INIT*
XACK*
INTA*
BCLK*
CCLK*
COLL_TRANS_MTR_HI_1
COLL_TRANS_MTR_HI_2
COLL_TRANS_MTR_LO_1
COLL_TRANS_MTR_LO_2
COLL_LONG_MTR_HI_1
COLL_LONG_MTR_HI_2
COLL_LONG_MTR_LO_1
COLL_LONG_MTR_LO_2
ADR(0:19)
DAT(0:7)
INT(0:8)
DRQT(0:1)
-1 ONLY
-2 ONLY
U1 HFBR1527
U2 HFBR2521
R1 2.00K 1% 0.25W
C1 0.1U 100V 20%
POWER TEST HEADER
J10
+5VDC
5V RTN
+24VDC
24V RTN
+15VDC
15V RTN
-15VDC
Hdr-Pin Straight 10-Pos_MATE-N-LOK
PWR SUPPLY
J12
PWR_OK
+24VDC
24V RTN
+15VDC
15V RTN
-15VDC
Hdr-Pin Straight 8-Pos_MATE-N-LOK_Pin2-Keyed
COLL. SERVO PWR SUPPLY
J14
+VAC
RTN
-VAC
Hdr-Pin Straight 4-Pos_MATE-N-LOK_Pin2-Keyed
COLLIMATER 1
J13
Hdr-Pin Straight 5-Pos_MATE-N-LOK_Pin2-Keyed
COLLIMATER 2
J15
Hdr-Pin Straight 5-Pos_MATE-N-LOK_Pin2-Keyed
+5VDC
TB1
Rec-Soc Straight 10-Pos_Pwr-blk
5V_RTN
TB2
Rec-Soc Straight 10-Pos_Pwr-blk
MH3 MH6 MH15 MH7 MH14 MH8 MH12 MH9 MH10 MH2 MH11 MH4 MH5
Female Mounting_Hole 0.177_Diameter
24V_RTN 15V_RTN -15VDC
BLOCK PATHNAME /nfs/eng-fs1/usr5/local_user/adventx_ii/rad_backplane
BLOCK SHT 7 OF XX
REV 1 PCN DESCRIPTION
MADE BY DATE APPR BY DATE
REV 2 PCN DESCRIPTION
MADE BY DATE APPR BY DATE
MADE J. BENNETT DATE 30/NOV/94
CHECK DATE
APPR DATE
OTHER DATE
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE RAD POSITIONER BACKPLANE
FIRST MADE FOR TITAN
DRAWING NO. 2125006SCH
REV A
SIZE B
SHT/CONT. ON 7 / -

SECTION 25
SKL RPM A1 A30, 2194083 (RACK POWER SUPPLY)



SHT. 1 CONT. –
2194083SCH

A1 DC POWER SUPPLY
(POWER ONE MAP80−4004)

J1
L 120VAC COLD
N NEUTRAL
GND CHASSIS
GRN/YEL
BLK
WHT
CARDRA CK
CB1 3.0 A
BRN
GRN/YEL

J2
+15 YEL
−15 BLU
+24 ORN
GND GRN
GND GRY
GND BLK
+5 BLK
+5 RED
RED
GRN

J12
+15VDC 6
−15VDC 8
+24VDC 3
15VRTN 7
24VRTN 4
5VRTV
5VRTN
TB2
+5VDC
+5VDC
TB1

J2
3 24V COLD
2 WARM START*
1
1N4937
K1
WARM START RELAY

J3
1
2
3

COLLIMAT OR
CB2 3.0 A
6 8 BLK
K1
T1
120VAC
BLK
BLU F1 2.8A
YEL 15VAC
BLU 15VAC F2 2.8A
IN LINE CONNECTOR

J1
1
2
3

A2 RECTIFIER/ FILTER PWA

J3
1 GRN
2

J2
1 ORN
3 GRY
4 YEL

J14
COLL SERVO PS +VDC 1
COLL SERVO PS RTN 3
COLL SERVO PS −VDC 4

POS A20
CARD RACK BACKPLANE

BUCKY
CB3 3.0 A
2 4 BLK
K1
WHT
120VAC BUCKY
0VAC BUCKY

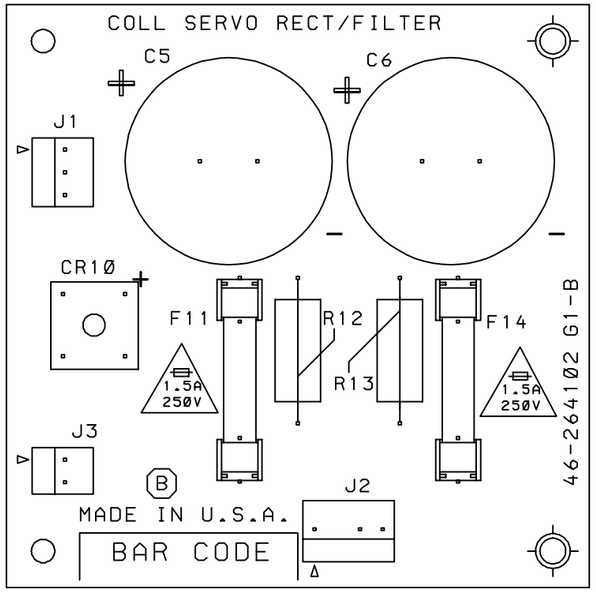
J4
1
2

POS A30
CARD RACK POWER SUPPLY

CREATED WITH: INTERLEAF 5.0

REV 1 PCN:	DESCRIPTION:			MADE: DAVID D. VOIGHT	DATE: 97MAY30	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: RAD POSITIONER MODULE POWER SUPPLY
MADE BY:	DATE:	APPR BY:	DATE:	CHECK:	DATE:		FIRST MADE FOR: DIG RAD
REV 2 PCN:	DESCRIPTION:			APPR:	DATE:		DRAWING NO. 2194083SCH / REV 0 / SIZE B / SHT. / CONT. ON 1 / –
MADE BY:	DATE:	APPR BY:	DATE:	OTHER:	DATE:		

SECTION 26
SKL RPM A1 A30 A1, 46-264102G1 (RECTIFIER/FILTER)



DRAWING NO. 46-264102-S SHT NO. 1 CONT ON SHEET -

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-

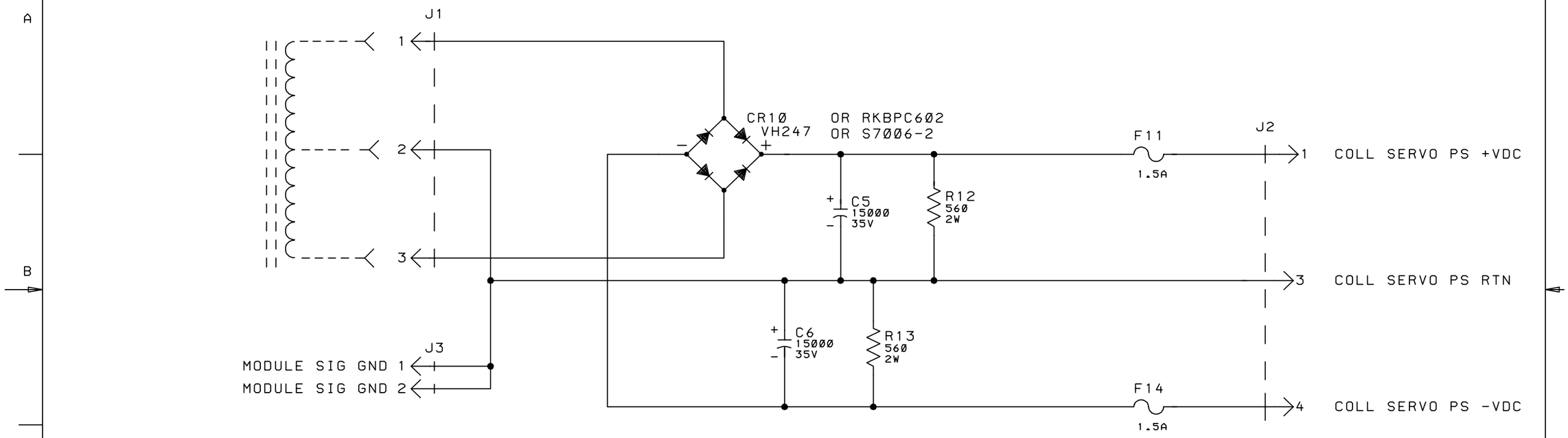
APPLIED PRACTICES
46-208600

REV 2
46-264102-S
CONT ON SHEET - SHT NO. 1

TITLE
SCHEMATIC DIAGRAM
COLL SERVO RECT/FILTER
FIRST MADE FOR SCX VASC POSITIONER

46-264102-S
CONT ON SHEET - SHT NO 1

46-264102G1-B



NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   ALL RESISTORS ARE 0.25W, 5%
   AND ARE IN OHMS
   ALL CAPACITORS ARE IN MFD
   ALL INVERTERS ARE 7404
   ALL DIODES ARE 1N4148
2. * INDICATES AN ACTIVE LOW.
3. PIN 2 NOT USED ON J2.
   REMOVE PIN BEFORE INSERTION.

REVISIONS		PRINTS TO	
1 JLS 30SEP87		404	
PCN 143796			
2 FEP 20JUL89			
PCN 157018			

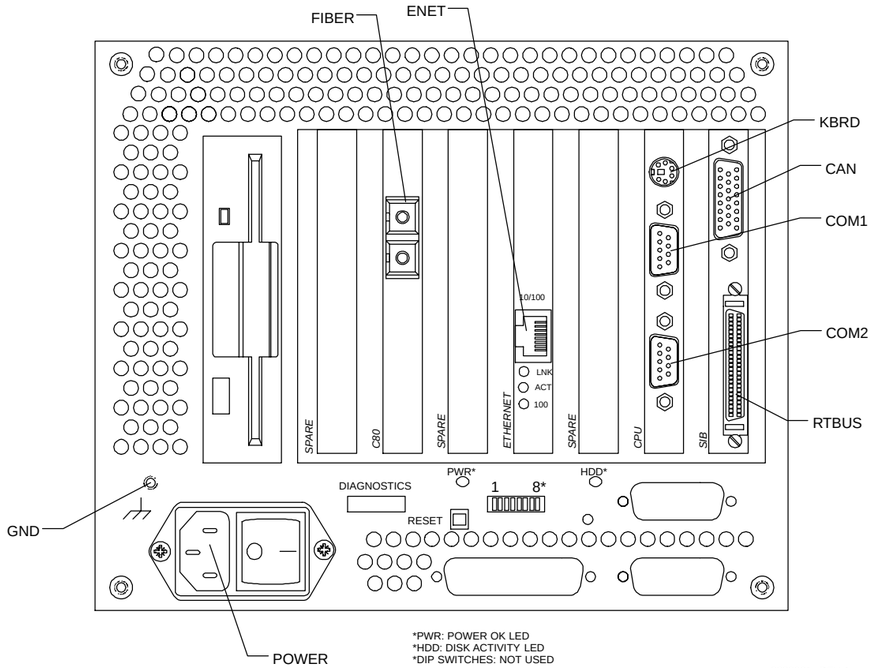
MADE BY J.KLUTH 07FEB87
ISSUED D.YATES 02MAR87
APPROVALS D.L.
DIV OR DEPT MEDICAL SYSTEMS
LOCATION MILWAUKEE, WI.
46-264102-S
CONT ON SHEET - SHT NO. 1

SECTION 27
SKL IDC A1, 2199347−2 (IDC INDUSTRIAL PC)

NO SCHEMATICS AVAILABLE

IMAGE DETECTOR CONTROLLER (IDC) − RAD 2199347−2

CONNECTOR DESIGNATIONS



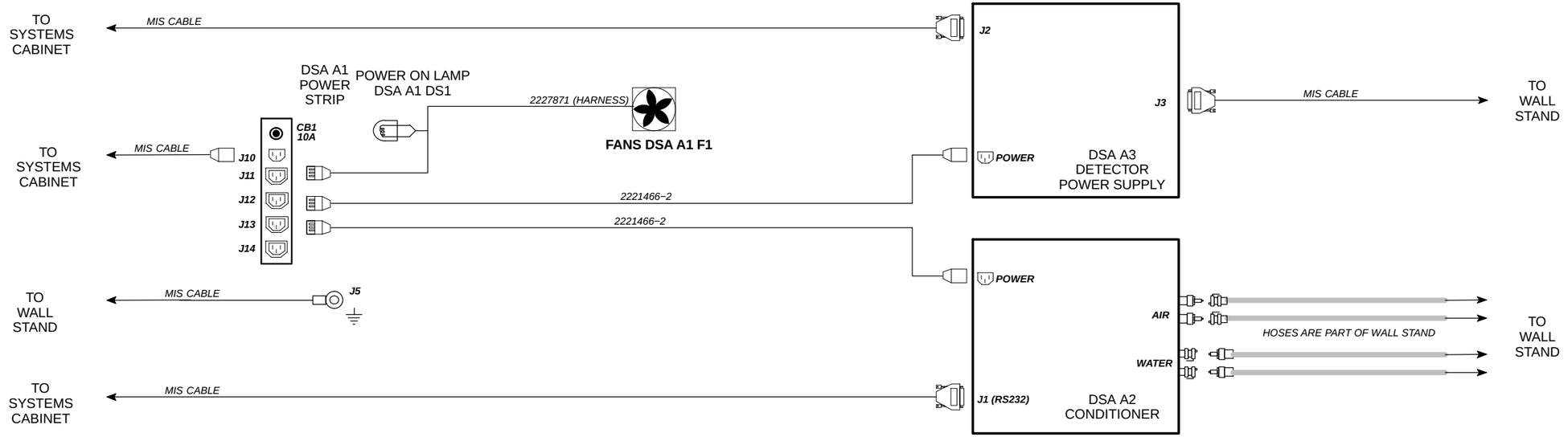
*PWR: POWER OK LED
*HDD: DISK ACTIVITY LED
*DIP SWITCHES: NOT USED

2232061 REV 1

CHAPTER 4 − DETECTOR SUPPORT ASSEMBLY (DSA, 2242088)



SHT. 1 CONT. –
2210104SCH



KEY TO CONNECTOR STYLES:

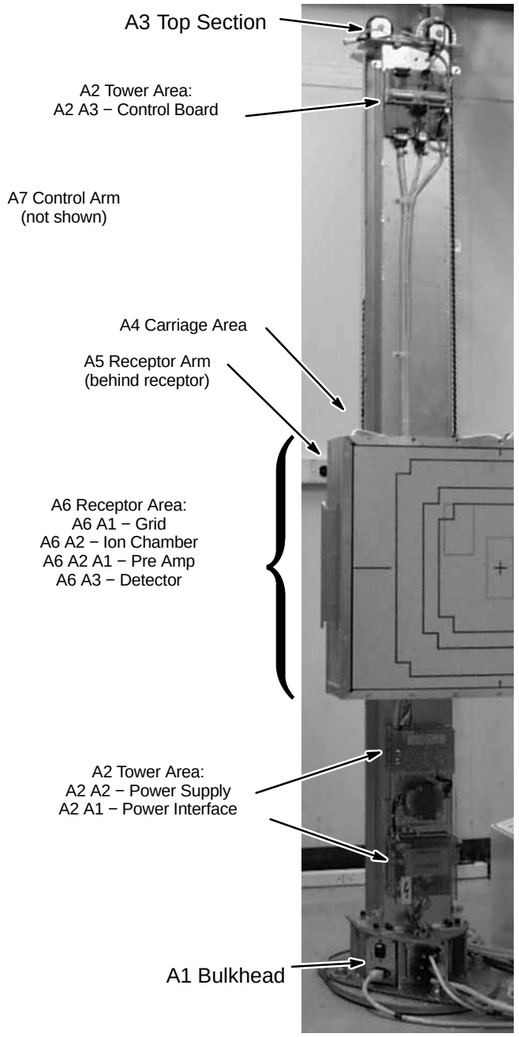
- IEC 320
- RING TERMINAL
- HOSE DISCONNECT FEMALE
- HOSE DISCONNECT MALE
- SUB D

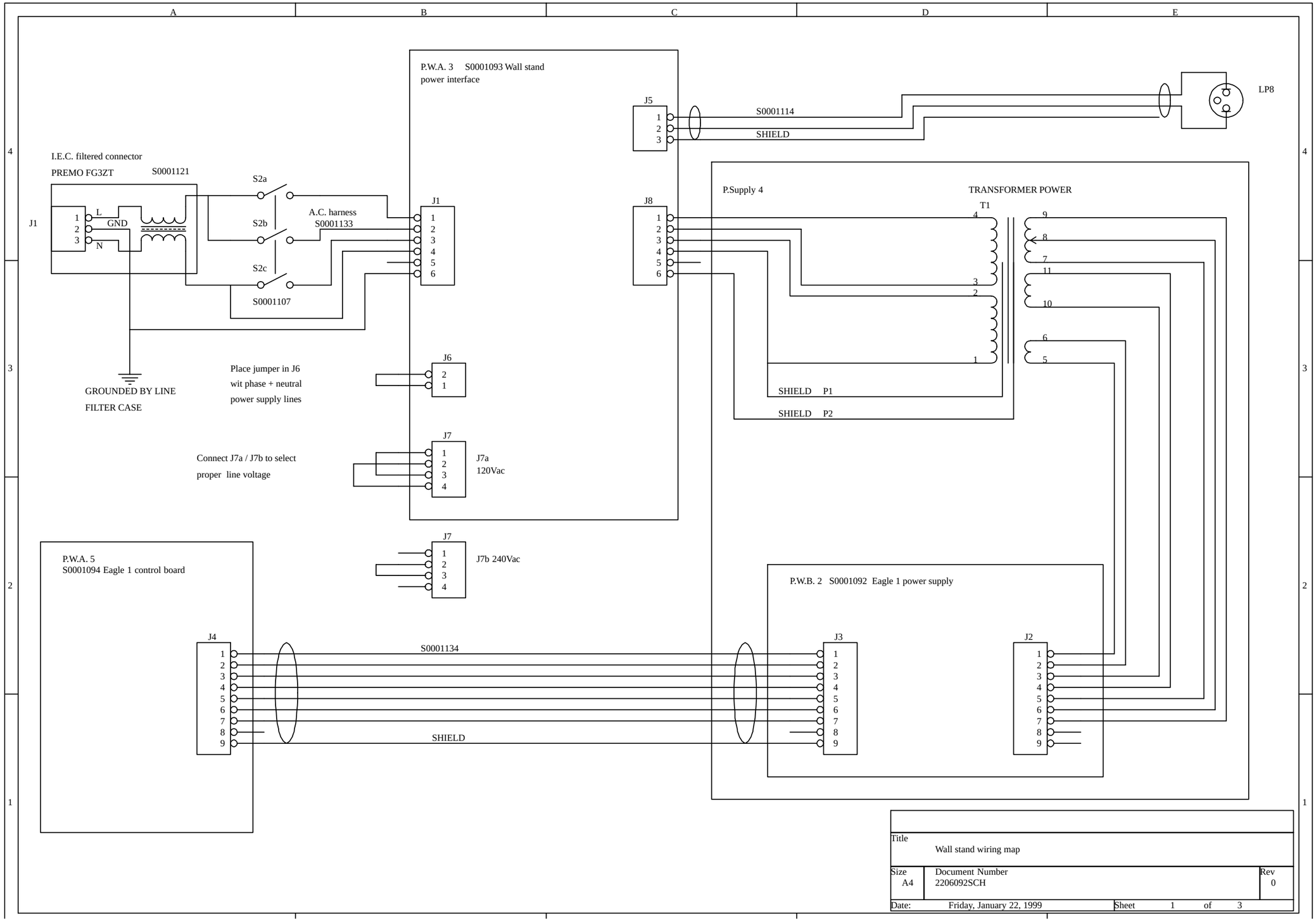
PATH: XRNETAPP1/USER12/DOCSRC/SCH/2242088.ILF (INTERLEAF 5.0)

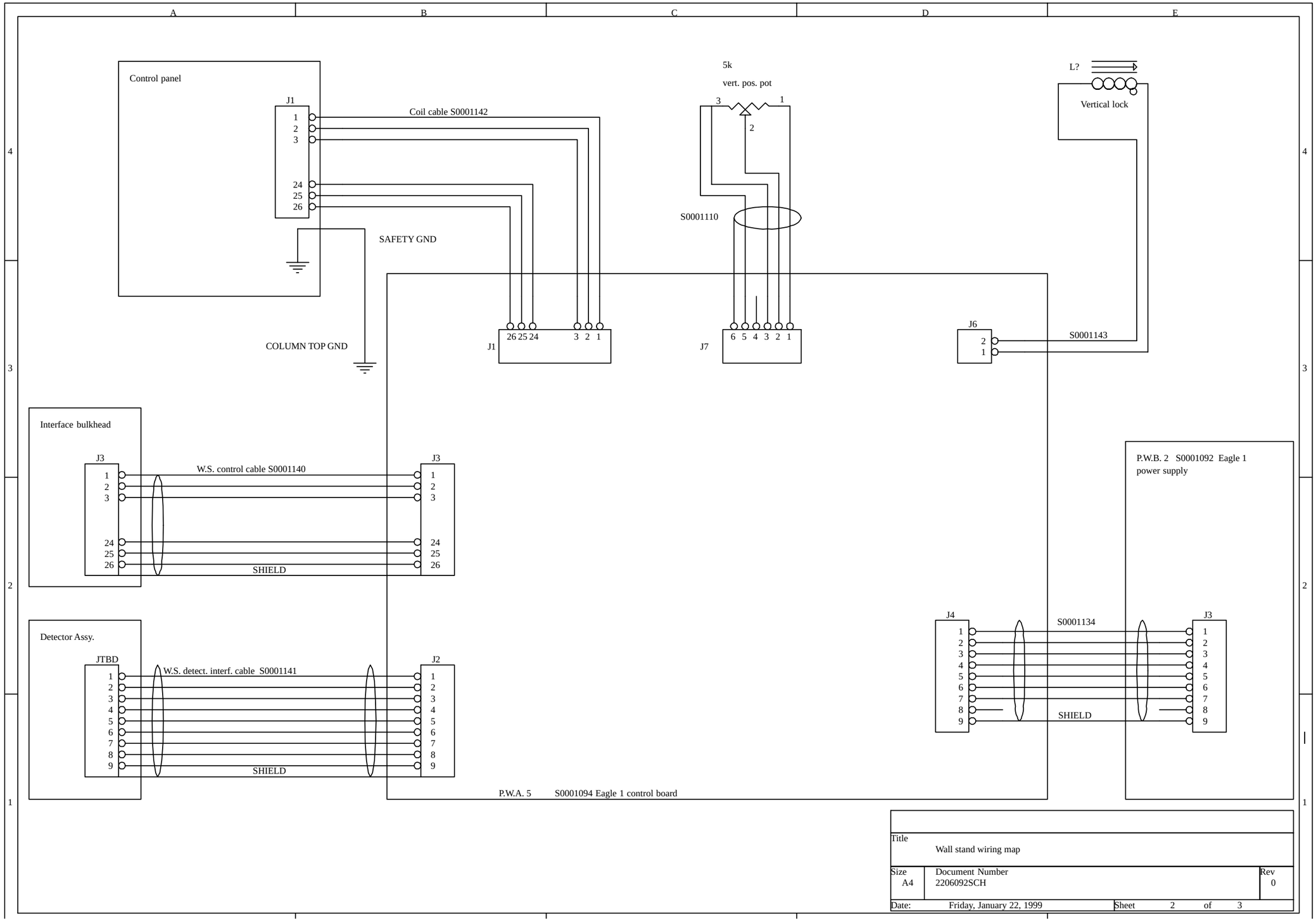
REV 1 PCN: DESCRIPTION:	MADE: GORDON HEILERT DATE: 99MAY 24	GE MEDICAL SYSTEMS	DESIGN TITLE: DETECTOR SUPPORT ASSEMBLY
MADE BY: DATE: APPR BY: DATE:	CHECK: DATE:	Milwaukee, WI USA	FIRST MADE FOR: REVOLUTION XQ/i
REV 2 PCN: DESCRIPTION:	APPR: DATE:		DRAWING NO. 2210104SCH / REV 0 / SIZE B / SHT. / CONT. ON 1 / –
MADE BY: DATE: APPR BY: DATE:	OTHER: DATE:		

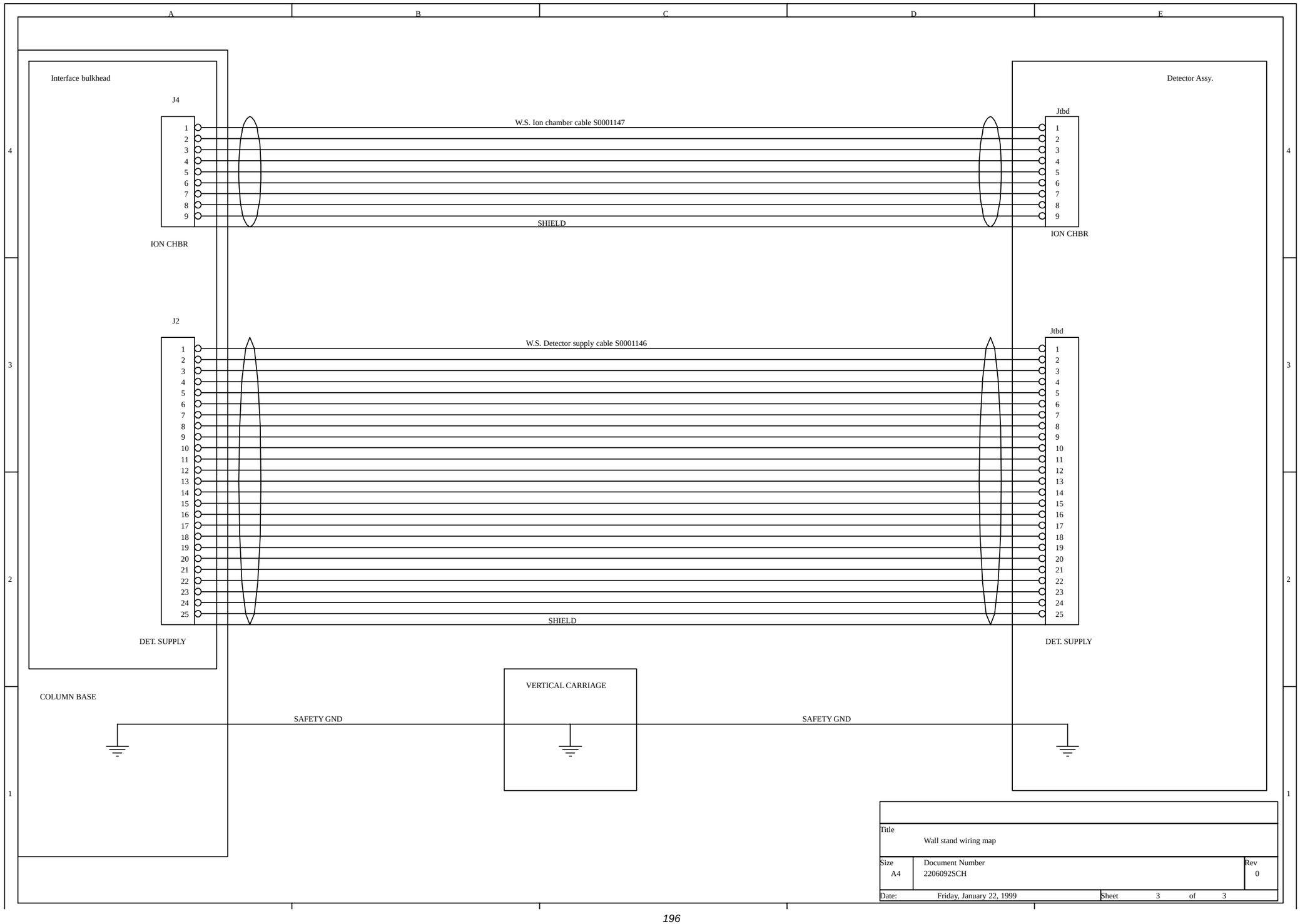
CHAPTER 5 − WALLSTAND (WLS)

SECTION 1
WLS, 2206092 (RECEPTOR STAND)

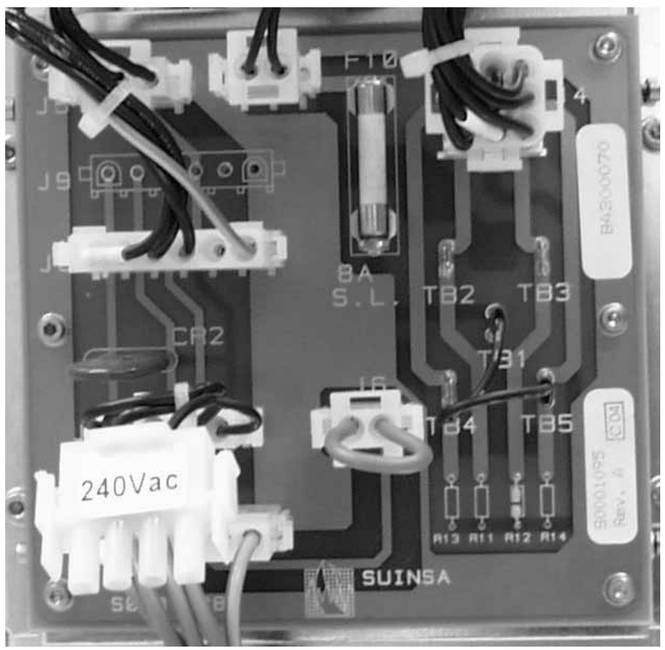


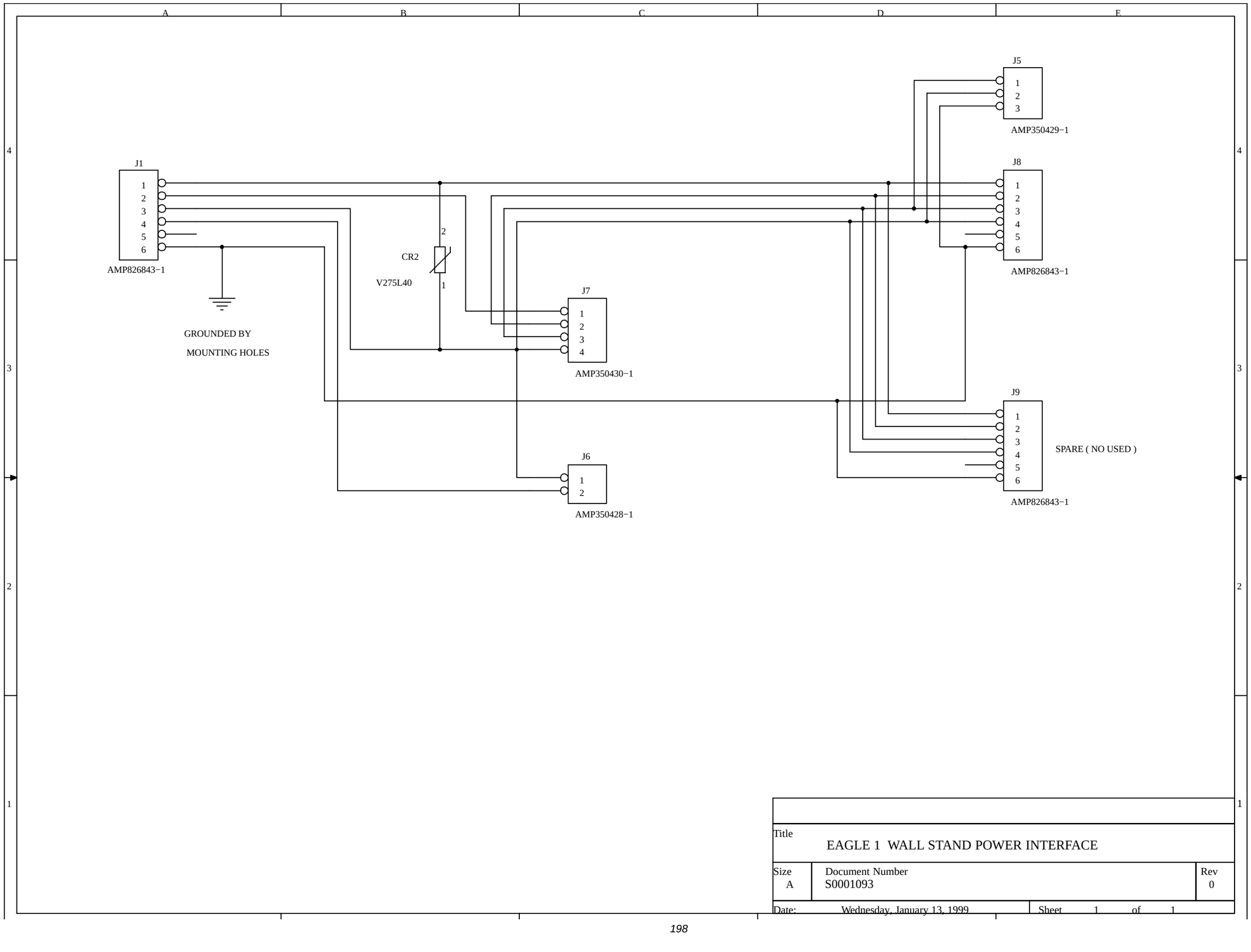

P.W.A. 3 S0001093 Wall stand
power interface
J5
1
2
3
S0001114
SHIELD
LP8
I.E.C. filtered connector
PREMO FG3ZT S0001121
J1
1
2
3
L
GND
N
S2a
S2b
S2c
S0001107
A.C. harness
S0001133
J1
1
2
3
4
5
6
J8
1
2
3
4
5
6
P.Supply 4
TRANSFORMER POWER
T1
4
3
2
1
9
8
7
11
10
6
5
SHIELD P1
SHIELD P2
J6
2
1
Place jumper in J6
wit phase + neutral
power supply lines
GROUNDED BY LINE
FILTER CASE
J7
1
2
3
4
J7a
120Vac
Connect J7a / J7b to select
proper line voltage
J7
1
2
3
4
J7b 240Vac
P.W.A. 5
S0001094 Eagle 1 control board
P.W.B. 2 S0001092 Eagle 1 power supply
J4
1
2
3
4
5
6
7
8
9
S0001134
SHIELD
J3
1
2
3
4
5
6
7
8
9
J2
1
2
3
4
5
6
7
8
9
Title
Wall stand wiring map
Size
A4
Document Number
2206092SCH
Rev
0
Date: Friday, January 22, 1999
Sheet 1 of 3


A
B
C
D
E
4
3
2
1
Control panel
J1
1
2
3
24
25
26
Coil cable S0001142
SAFETY GND
COLUMN TOP GND
5k
vert. pos. pot
3
1
2
S0001110
L?
Vertical lock
J1
26 25 24
3 2 1
J7
6 5 4 3 2 1
J6
2
1
S0001143
Interface bulkhead
J3
W.S. control cable S0001140
SHIELD
Detector Assy.
JTBD
W.S. detect. interf. cable S0001141
J2
SHIELD
P.W.A. 5 S0001094 Eagle 1 control board
P.W.B. 2 S0001092 Eagle 1
power supply
J4
S0001134
J3
SHIELD
Title
Wall stand wiring map
Size
A4
Document Number
2206092SCH
Rev
0
Date:
Friday, January 22, 1999
Sheet 2 of 3

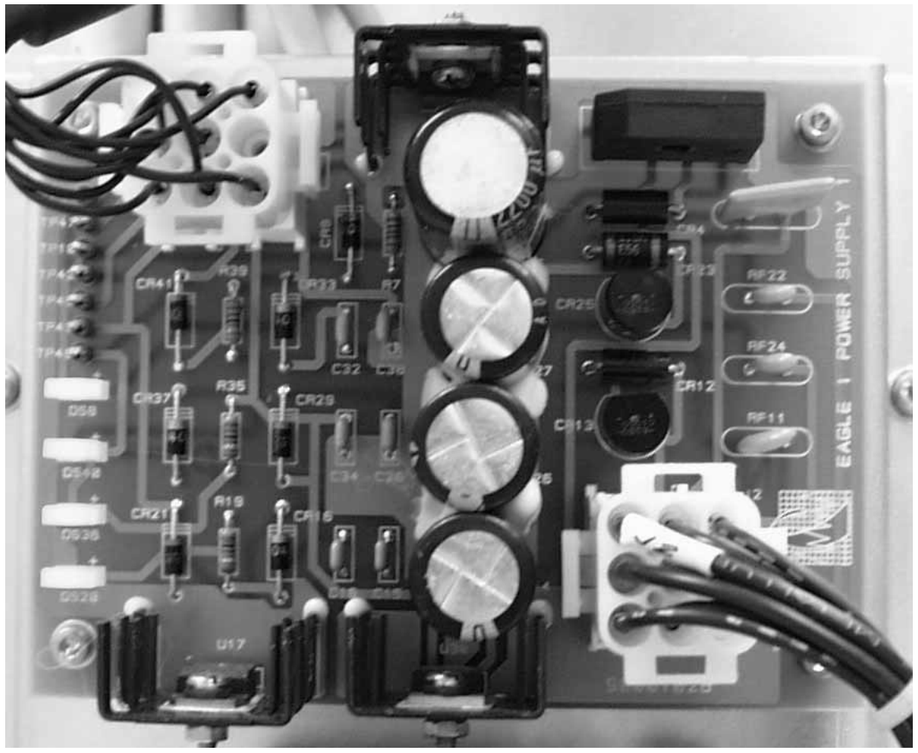

A
B
C
D
E
4
3
2
1
Interface bulkhead
J4
1
2
3
4
5
6
7
8
9
ION CHBR
W.S. Ion chamber cable S0001147
SHIELD
Detector Assy.
Jtbd
1
2
3
4
5
6
7
8
9
ION CHBR
J2
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
DET. SUPPLY
W.S. Detector supply cable S0001146
SHIELD
Jtbd
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
DET. SUPPLY
COLUMN BASE
VERTICAL CARRIAGE
SAFETY GND
SAFETY GND
Title
Wall stand wiring map
Size
A4
Document Number
2206092SCH
Rev
0
Date:
Friday, January 22, 1999
Sheet
3
of
3

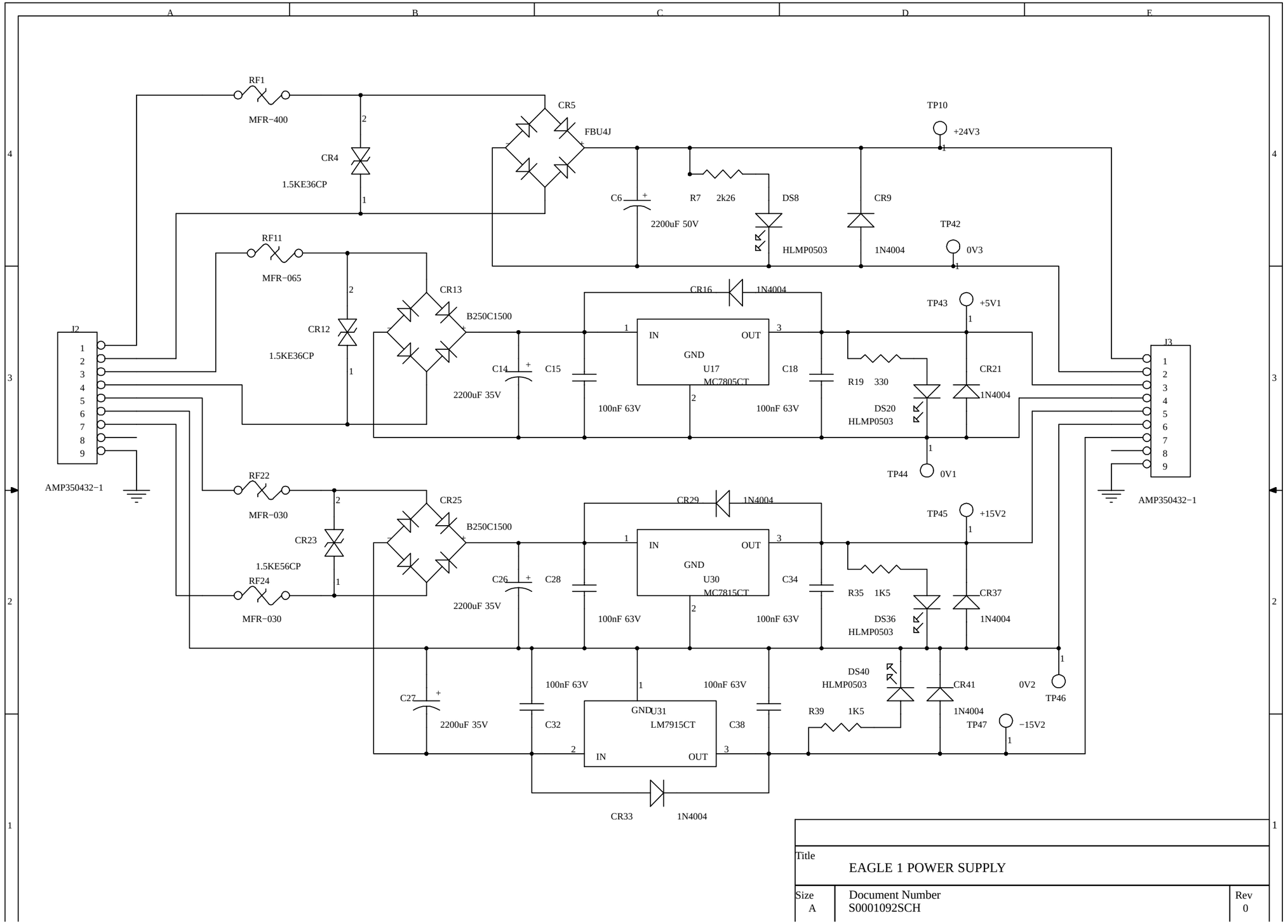
SECTION 2
WLS A2 A1, 2237647 (RECEPTOR STAND POWER INTERFACE)



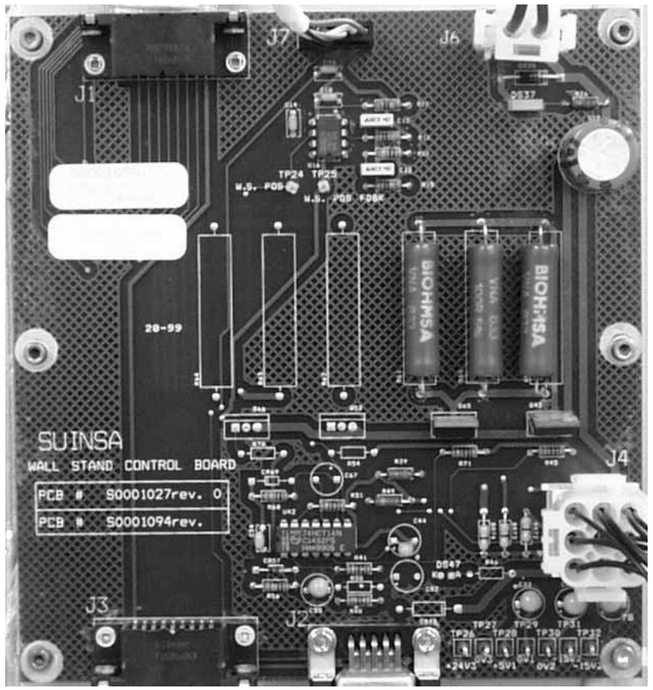

A
B
C
D
E
4
3
2
1
J1
1
2
3
4
5
6
AMP826843−1
GROUNDED BY
MOUNTING HOLES
CR2
V275L40
2
1
J5
1
2
3
AMP350429−1
J8
1
2
3
4
5
6
AMP826843−1
J7
1
2
3
4
AMP350430−1
J6
1
2
AMP350428−1
J9
1
2
3
4
5
6
SPARE (NO USED)
AMP826843−1
Title
EAGLE 1 WALL STAND POWER INTERFACE
Size
A
Document Number
S0001093
Rev
0
Date: Wednesday, January 13, 1999
Sheet 1 of 1

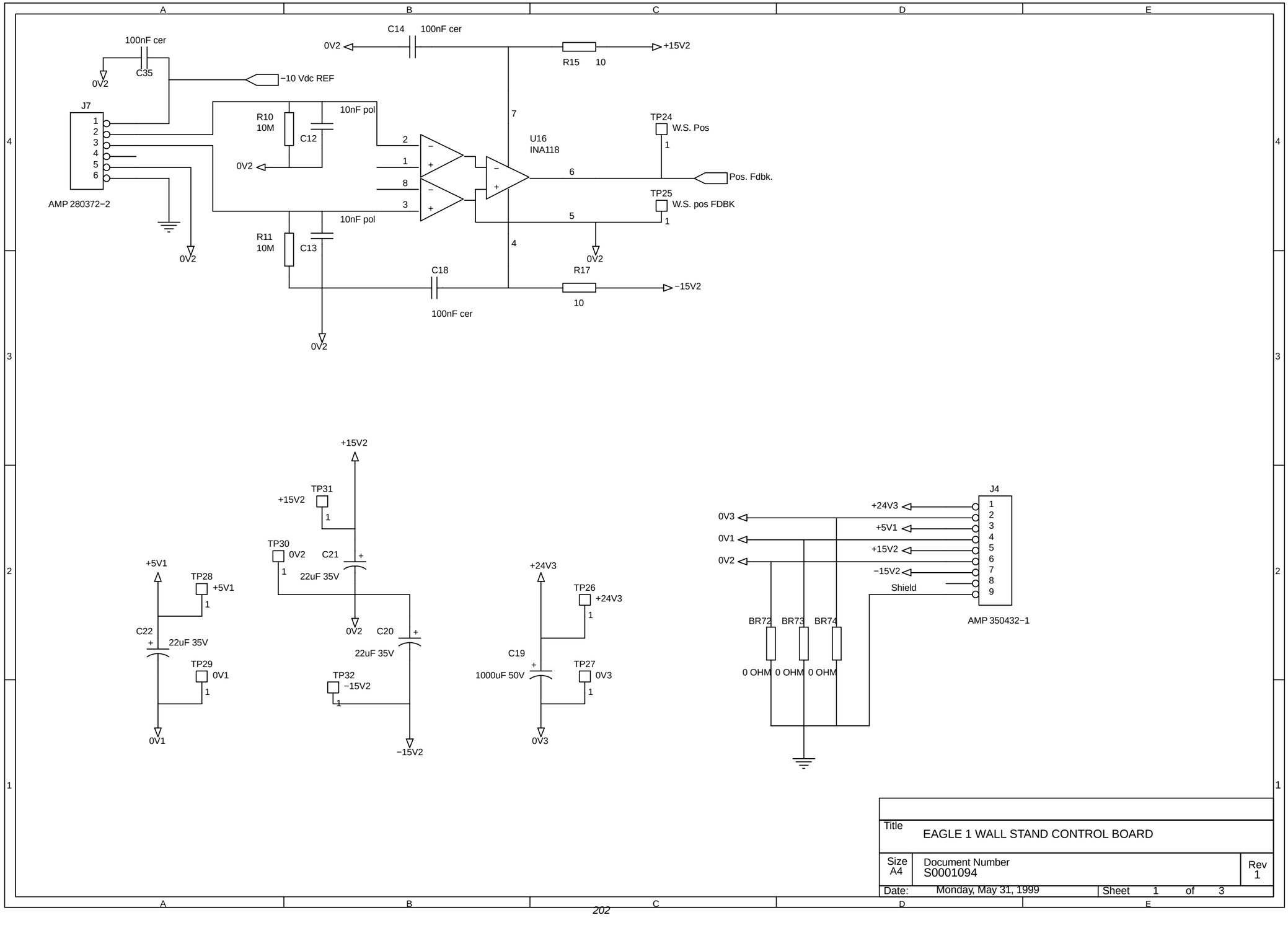
SECTION 3
WLS A2 A2, 2237652 (POWER SUPPLY)

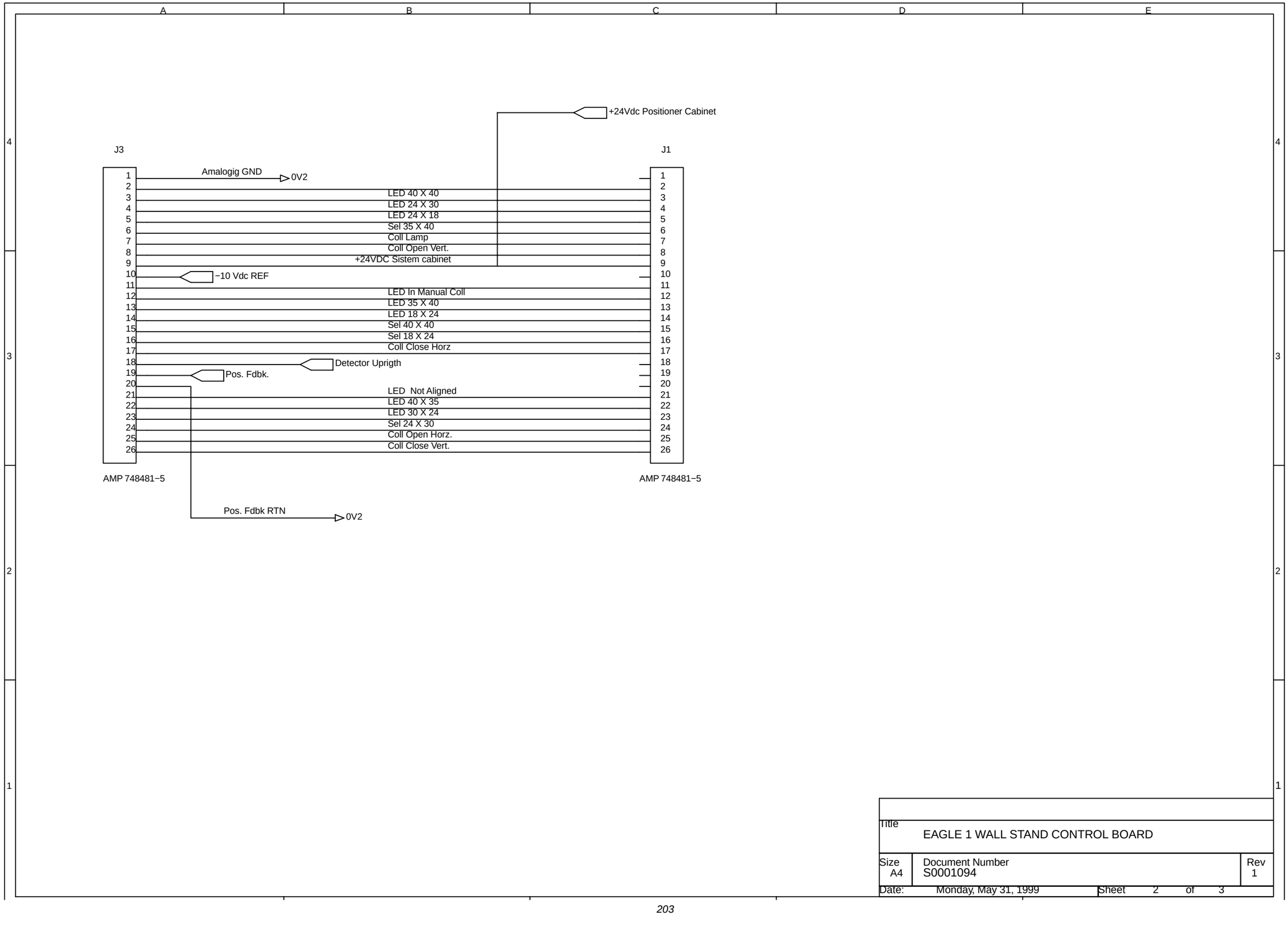


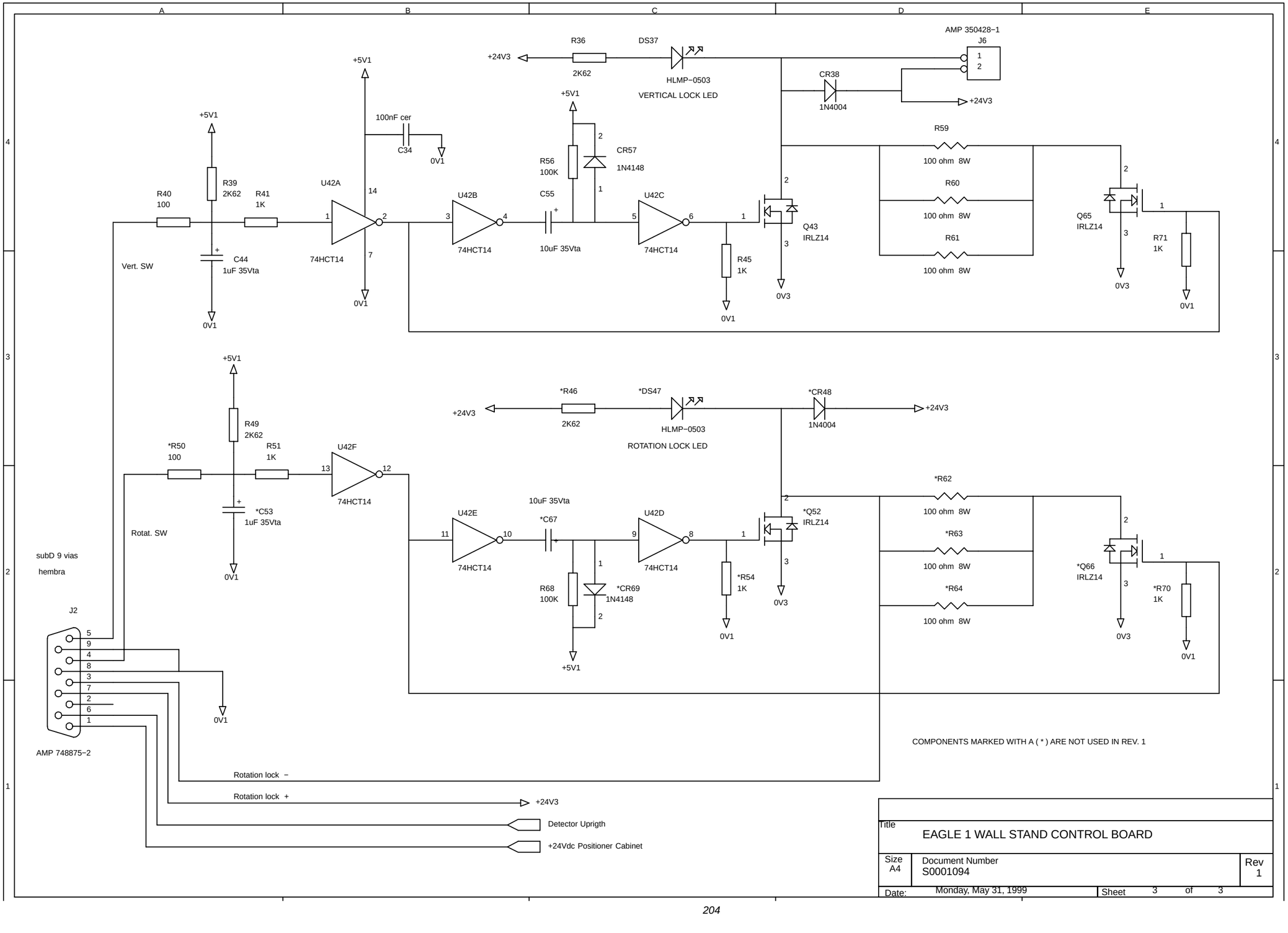

RF1
MFR−400
CR4
1.5KE36CP
CR5
FBU4J
C6
2200uF 50V
R7 2k26
DS8
HLMP0503
CR9
1N4004
TP10
+24V3
TP42
0V3
RF11
MFR−065
CR12
1.5KE36CP
CR13
B250C1500
CR16 1N4004
C14
2200uF 35V
C15
100nF 63V
U17
MC7805CT
IN
OUT
GND
C18
100nF 63V
TP43
+5V1
R19 330
DS20
HLMP0503
CR21
1N4004
TP44
0V1
J2
AMP350432−1
J3
AMP350432−1
RF22
MFR−030
CR23
1.5KE56CP
RF24
MFR−030
CR25
B250C1500
CR29 1N4004
C26
2200uF 35V
C28
100nF 63V
U30
MC7815CT
C34
100nF 63V
TP45
+15V2
R35 1K5
DS36
HLMP0503
CR37
1N4004
C27
2200uF 35V
C32
100nF 63V
U31
LM7915CT
C38
100nF 63V
DS40
HLMP0503
CR41
1N4004
R39 1K5
TP47
−15V2
0V2
TP46
CR33 1N4004
Title
EAGLE 1 POWER SUPPLY
Size
A
Document Number
S0001092SCH
Rev
0

SECTION 4
WLS A2 A3, 2237653 (RECEPTOR STAND CONTROL BOARD)




A
B
C
D
E
100nF cer
C35
0V2
−10 Vdc REF
J7
1
2
3
4
5
6
AMP 280372−2
R10
10M
C12
10nF pol
R11
10M
C13
10nF pol
C14
100nF cer
+15V2
R15
10
U16
INA118
TP24
W.S. Pos
Pos. Fdbk.
TP25
W.S. pos FDBK
R17
C18
100nF cer
−15V2
+15V2
TP31
TP30
C21
22uF 35V
C22
22uF 35V
C20
22uF 35V
TP28
+5V1
TP29
0V1
TP32
−15V2
+24V3
TP26
C19
1000uF 50V
TP27
0V3
J4
+24V3
0V3
+5V1
0V1
+15V2
0V2
−15V2
Shield
AMP 350432−1
BR72
BR73
BR74
0 OHM
0 OHM
0 OHM
Title
EAGLE 1 WALL STAND CONTROL BOARD
Size
A4
Document Number
S0001094
Rev
1
Date:
Monday, May 31, 1999
Sheet
1
of
3

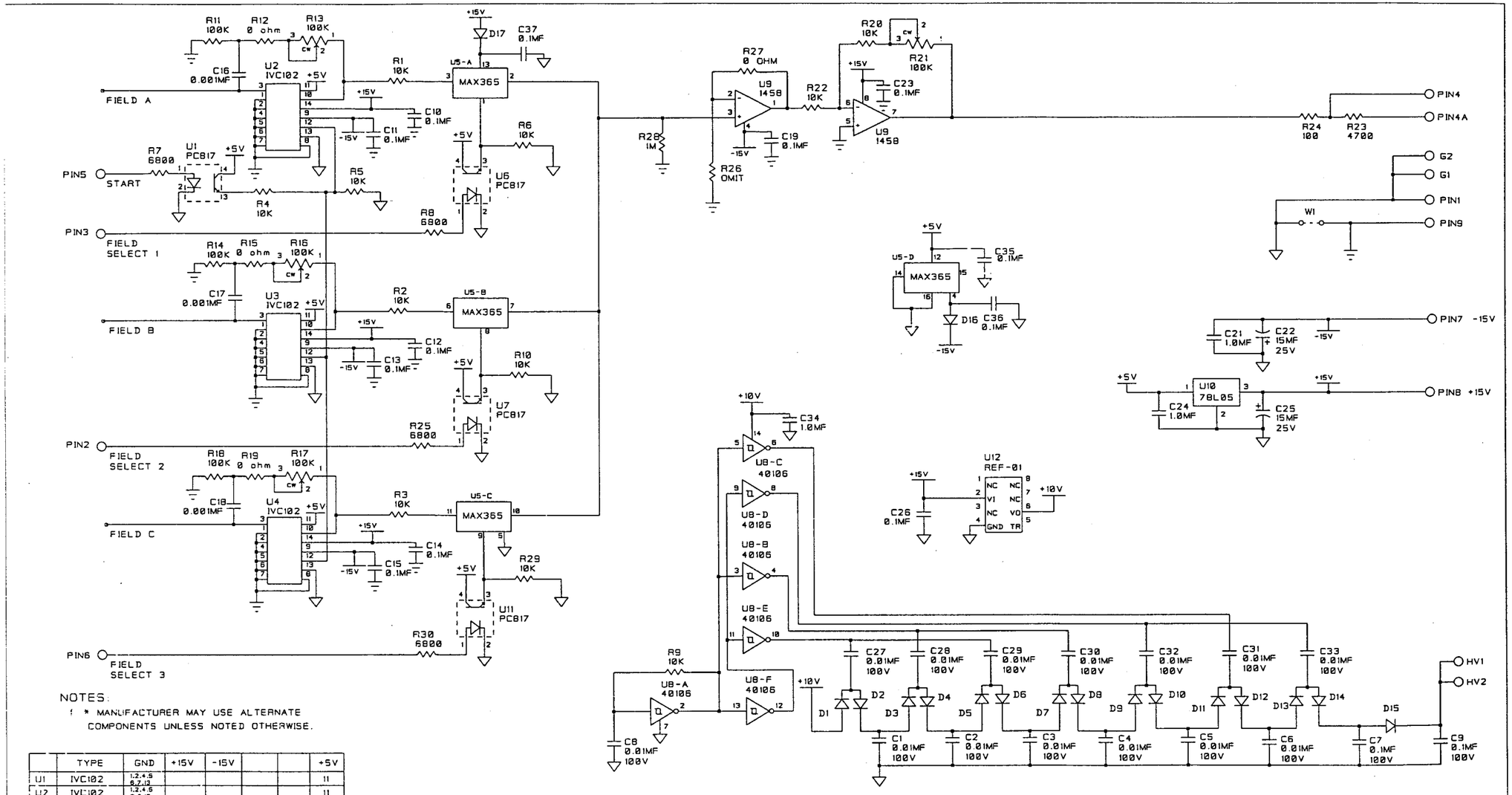

A
B
C
D
E
4
3
2
1
+24Vdc Positioner Cabinet
J3
J1
Amalogig GND
0V2
LED 40 X 40
LED 24 X 30
LED 24 X 18
Sel 35 X 40
Coll Lamp
Coll Open Vert.
+24VDC Sistem cabinet
−10 Vdc REF
LED In Manual Coll
LED 35 X 40
LED 18 X 24
Sel 40 X 40
Sel 18 X 24
Coll Close Horz
Detector Uprigth
Pos. Fdbk.
LED Not Aligned
LED 40 X 35
LED 30 X 24
Sel 24 X 30
Coll Open Horz.
Coll Close Vert.
AMP 748481−5
AMP 748481−5
Pos. Fdbk RTN
0V2
Title
EAGLE 1 WALL STAND CONTROL BOARD
Size
A4
Document Number
S0001094
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1
Date:
Monday, May 31, 1999
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2
of
3


A
B
C
D
E
4
3
2
1
+5V1
R36
DS37
+24V3
2K62
HLMP−0503
VERTICAL LOCK LED
AMP 350428−1
J6
CR38
1N4004
+24V3
100nF cer
C34
0V1
R59
100 ohm 8W
R60
100 ohm 8W
R61
100 ohm 8W
R56
100K
CR57
1N4148
C55
R40
100
R39
2K62
R41
1K
U42A
U42B
U42C
Vert. SW
C44
1uF 35Vta
74HCT14
10uF 35Vta
Q43
IRLZ14
R45
1K
0V3
Q65
IRLZ14
R71
1K
*R46
*DS47
*CR48
2K62
HLMP−0503
ROTATION LOCK LED
1N4004
R49
2K62
*R50
100
R51
1K
U42F
*C53
1uF 35Vta
Rotat. SW
U42E
U42D
*C67
10uF 35Vta
*Q52
IRLZ14
*R62
100 ohm 8W
*R63
100 ohm 8W
*R64
100 ohm 8W
R68
100K
*CR69
1N4148
*R54
1K
*Q66
IRLZ14
*R70
1K
subD 9 vias
hembra
J2
AMP 748875−2
Rotation lock −
Rotation lock +
Detector Upright
+24Vdc Positioner Cabinet
COMPONENTS MARKED WITH A (*) ARE NOT USED IN REV. 1
Title
EAGLE 1 WALL STAND CONTROL BOARD
Size
A4
Document Number
S0001094
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1
Date:
Monday, May 31, 1999
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3
of
3

SECTION 5
WLS A6 A2, 2210104 (ION CHAMBER)

No Schematic Available

SECTION 6
WLS A6 A2 A1, 2210104 (PREAMP)



NOTES:
1. * MANUFACTURER MAY USE ALTERNATE COMPONENTS UNLESS NOTED OTHERWISE.

	TYPE	GND	+15V	-15V			+5V
U1	IVC102	1,2,4,5 8,7,13					11
U2	IVC102	1,2,4,5 8,7,13					11
U3	IVC102	1,2,4,5 8,7,13					11
U4	PC817	2	4				
U5	1458	5	8	4			
U6	40106						
U7	78L05	2	3				1
U8	PC817	2	4				
U9	PC817	2	4				
U10	PC817	2					4
U11	4066	7,12	14				
U12	1458	5	8	4			

REV	ECN NO.	DATE	REVISIONS	BY
02	1793	24FEB99	REPLACED 4066 WITH MAX365	CJL
01	1712	06JUL98	RELEASED TO PRODUCTION	JC

DO NOT SCALE

UNLESS SPECIFIED OTHERWISE: DIMENSIONS ARE IN INCHES
FRACTIONS +/- 1/64 DEC. +/- 0.010 ANGLES +/- 1 DEGREE

SCALE NONE	DRAWN BY CJL	DATE 20JAN98
MATERIAL	CHECKED BY TRW	26MAR99
FINISH	APPROVED BY BRP	26MAR99

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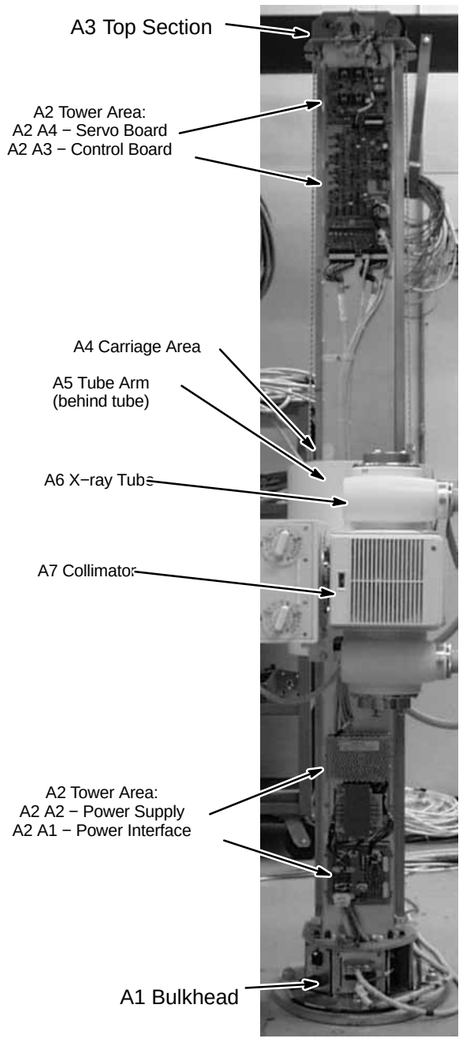
ADVANCED INSTRUMENT DEVELOPMENT, INC.
1011 N. 25TH AVE.
MELROSE PARK, IL 60160
X-RAY

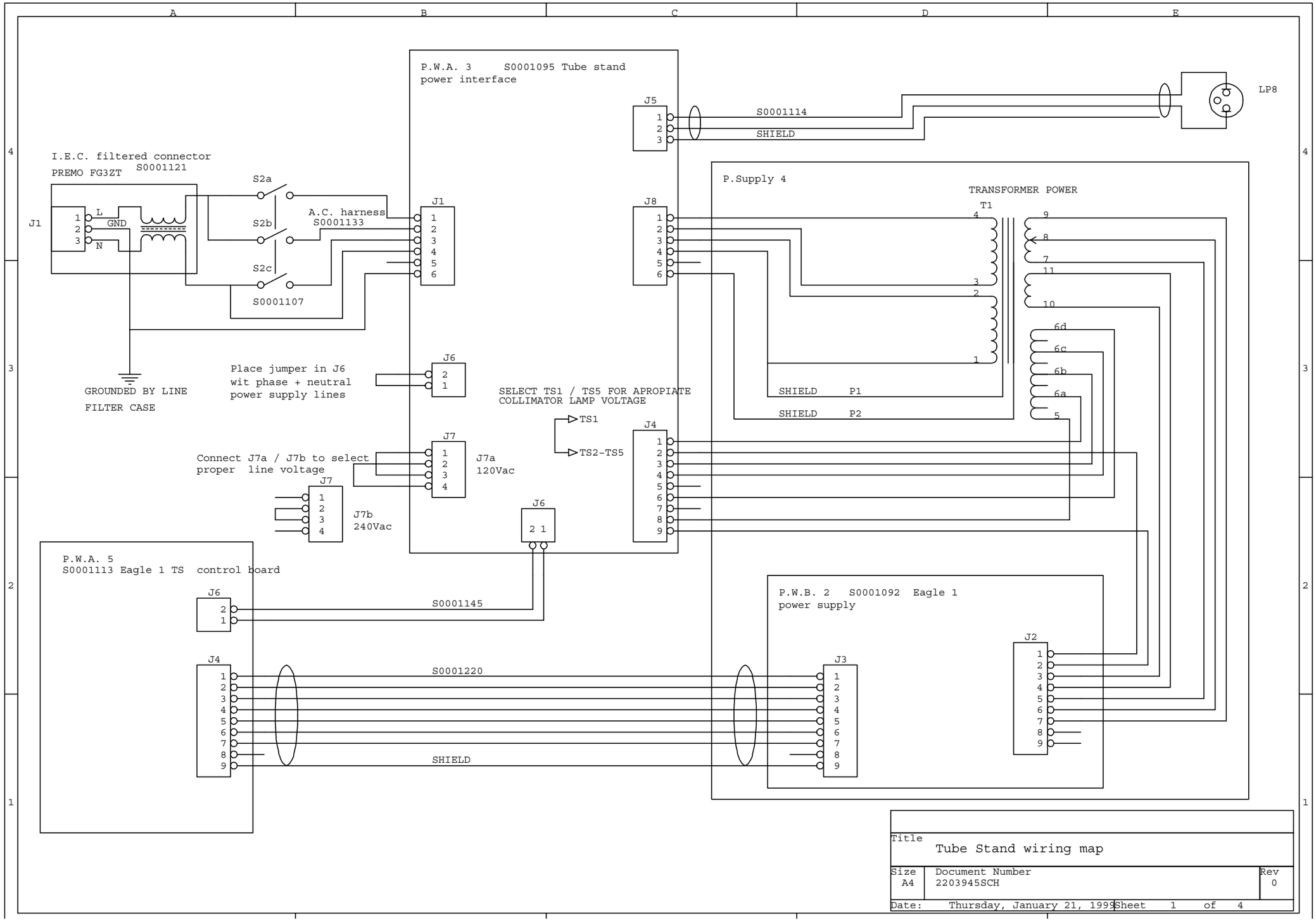
GE REPLACEMENT
3-FIELD PRE-AMP BD.

USED ON	NEXT ASSY.	DRAWING NO.	REV
ICX SERIES		61130A	02

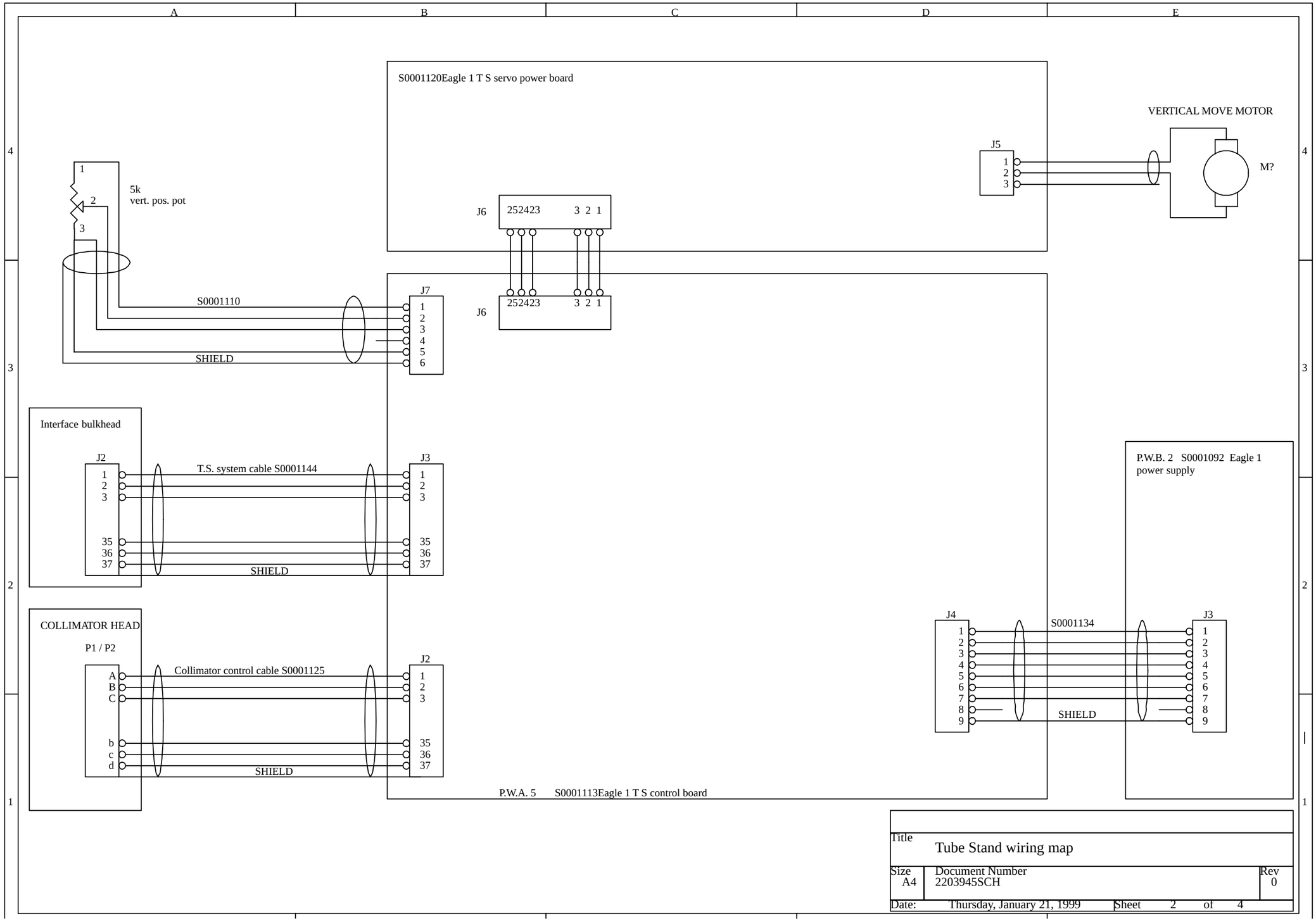
CHAPTER 6 − TUBE STAND (TBS)

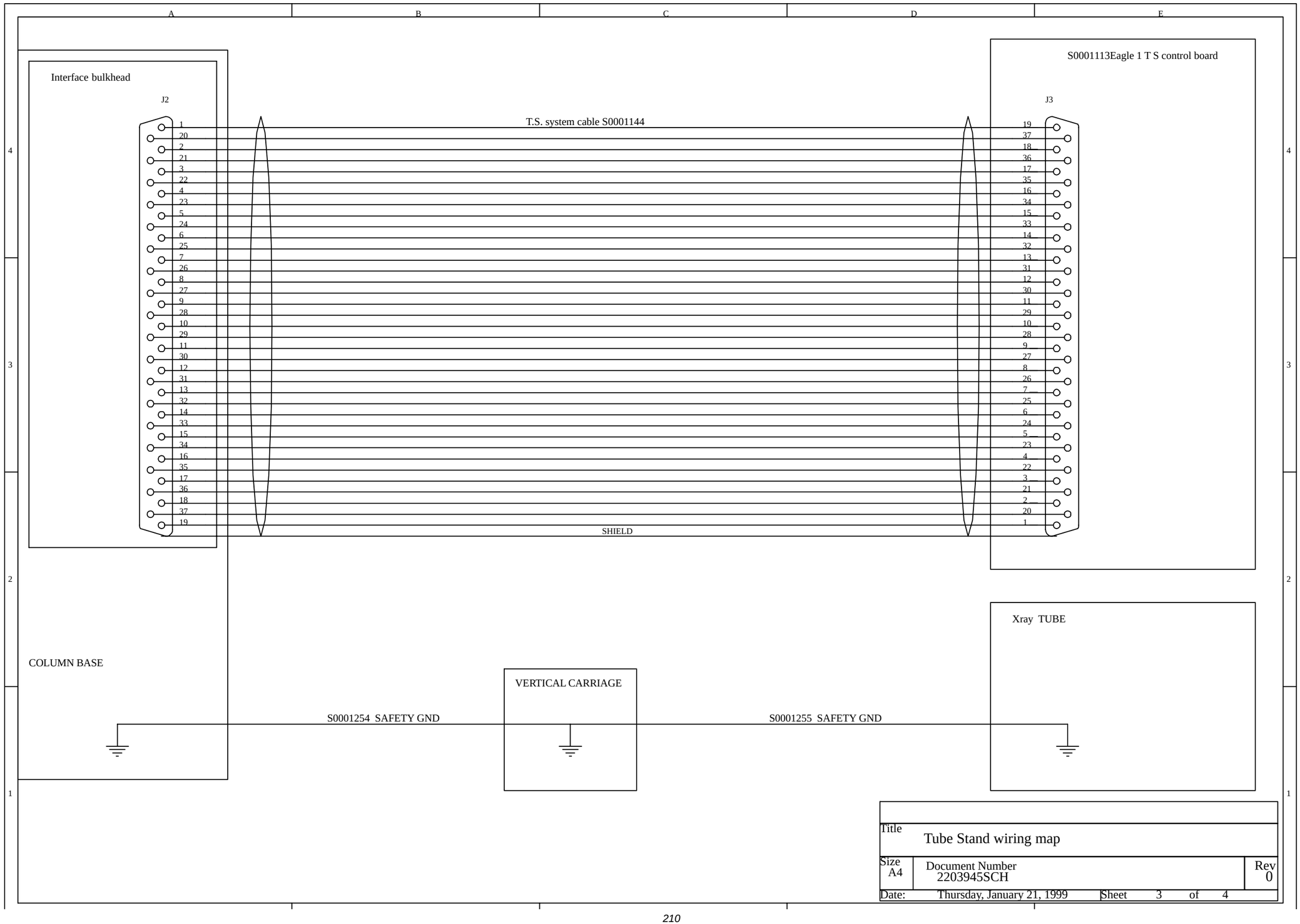
SECTION 1
TBS, 2203945 (TUBE STAND)

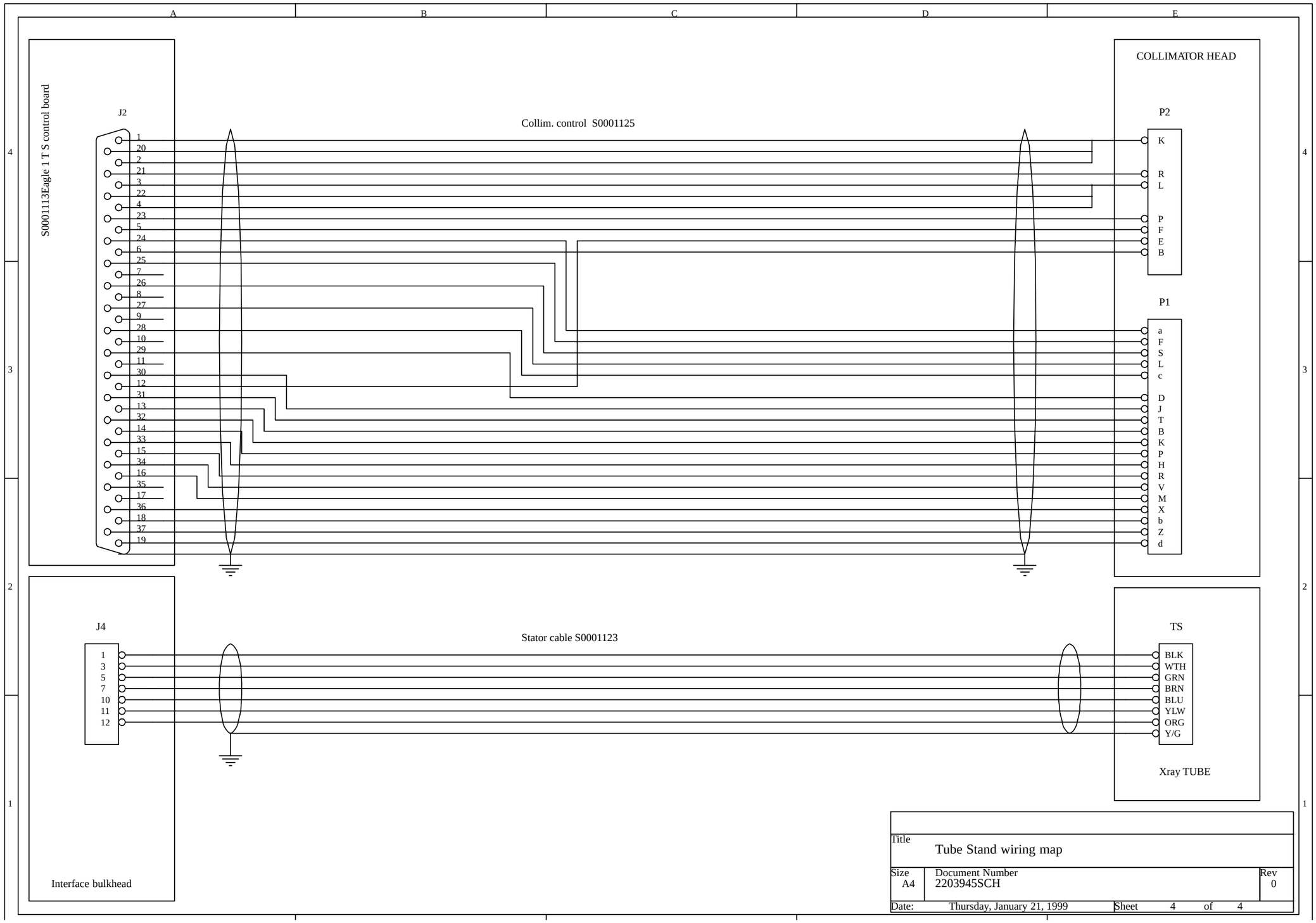




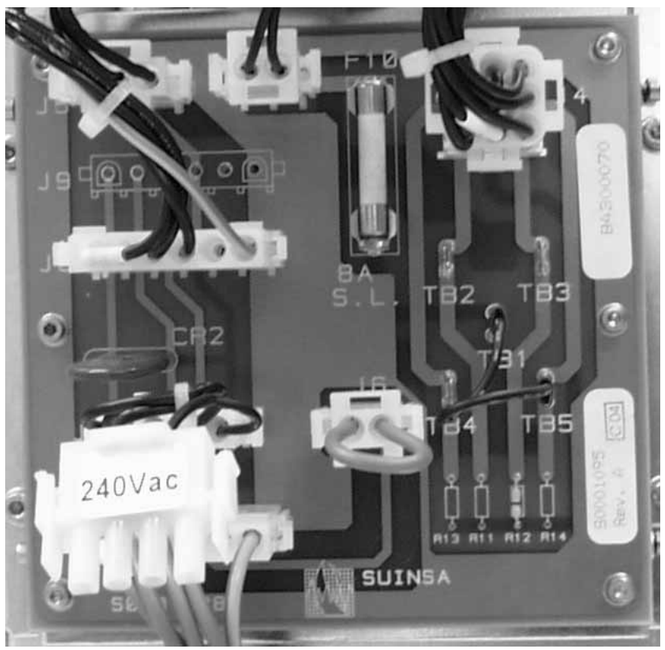
Title: Tube Stand wiring map		
Size: A4	Document Number: 2203945SCH	Rev: 0
Date: Thursday, January 21, 1999	Sheet 1 of 4	

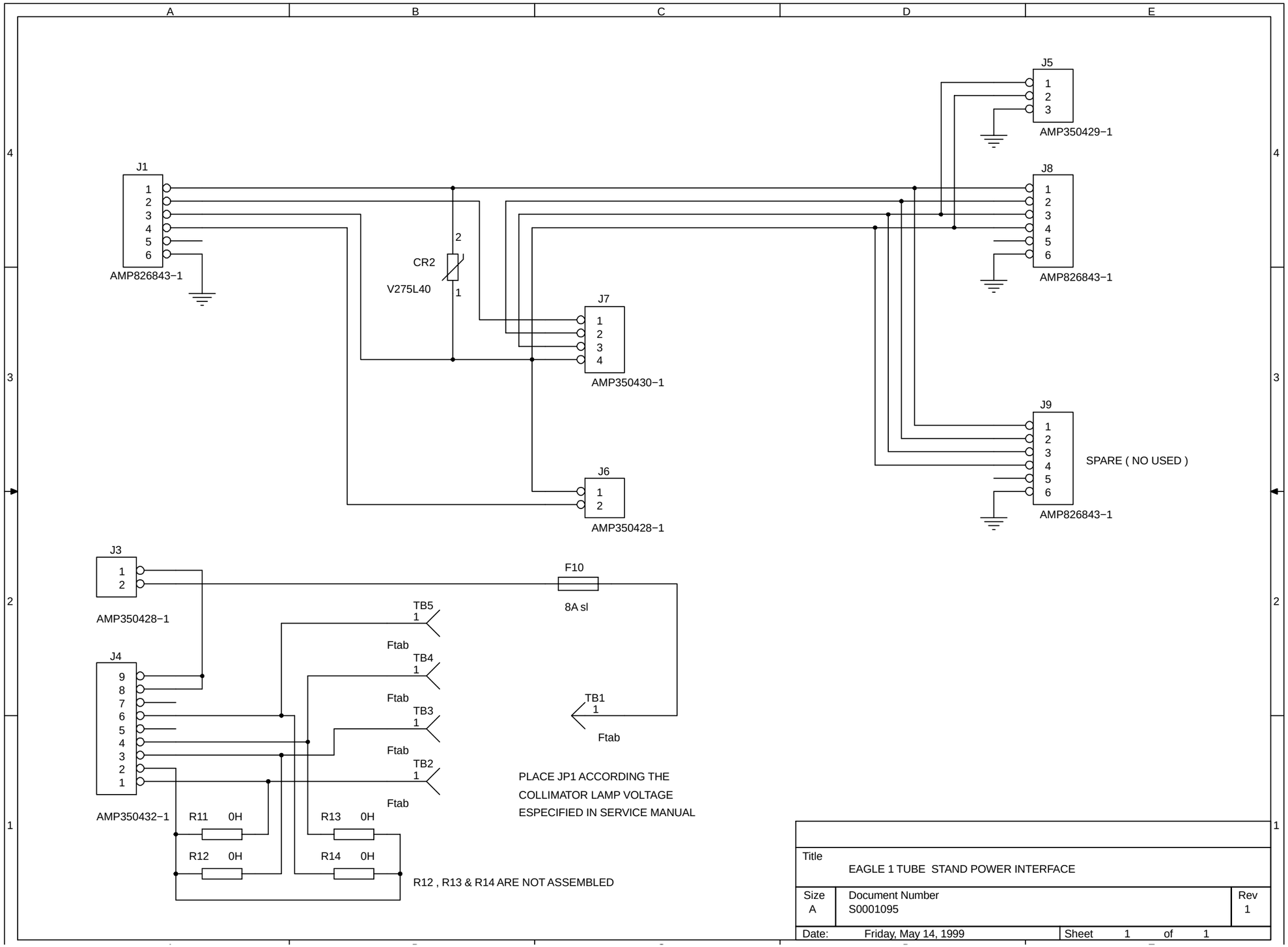

A
B
C
D
E
4
3
2
1
S0001120Eagle 1 T S servo power board
VERTICAL MOVE MOTOR
J5
1
2
3
M?
1
2
3
5k
vert. pos. pot
J6
252423
3 2 1
J7
S0001110
1
2
3
4
5
6
SHIELD
J6
252423
3 2 1
Interface bulkhead
J2
1
2
3
35
36
37
T.S. system cable S0001144
J3
1
2
3
35
36
37
SHIELD
P.W.B. 2 S0001092 Eagle 1
power supply
COLLIMATOR HEAD
P1 / P2
J2
A
B
C
b
c
d
Collimator control cable S0001125
1
2
3
35
36
37
SHIELD
J4
1
2
3
4
5
6
7
8
9
S0001134
J3
1
2
3
4
5
6
7
8
9
SHIELD
P.W.A. 5 S0001113Eagle 1 T S control board
Title
Tube Stand wiring map
Size
A4
Document Number
2203945SCH
Rev
0
Date:
Thursday, January 21, 1999
Sheet 2 of 4


A
B
C
D
E
4
3
2
1
Interface bulkhead
J2
1 20 2 21 3 22 4 23 5 24 6 25 7 26 8 27 9 28 10 29 11 30 12 31 13 32 14 33 15 34 16 35 17 36 18 37 19
T.S. system cable S0001144
SHIELD
S0001113Eagle 1 T S control board
J3
19 37 18 36 17 35 16 34 15 33 14 32 13 31 12 30 11 29 10 28 9 27 8 26 7 25 6 24 5 23 4 22 3 21 2 20 1
Xray TUBE
COLUMN BASE
VERTICAL CARRIAGE
S0001254 SAFETY GND
S0001255 SAFETY GND
Title
Tube Stand wiring map
Size
A4
Document Number
2203945SCH
Rev
0
Date: Thursday, January 21, 1999
Sheet 3 of 4


A
B
C
D
E
4
3
2
1
S0001113Eagle 1 T S control board
J2
1
20
2
21
3
22
4
23
5
24
6
25
7
26
8
27
9
28
10
29
11
30
12
31
13
32
14
33
15
34
16
35
17
36
18
37
19
Collim. control S0001125
COLLIMATOR HEAD
P2
K
R
L
P
F
E
B
P1
a
F
S
L
c
D
J
T
B
K
P
H
R
V
M
X
b
Z
d
J4
1
3
5
7
10
11
12
Stator cable S0001123
TS
BLK
WTH
GRN
BRN
BLU
YLW
ORG
Y/G
Xray TUBE
Interface bulkhead
Title
Tube Stand wiring map
Size
A4
Document Number
2203945SCH
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0
Date:
Thursday, January 21, 1999
Sheet 4 of 4

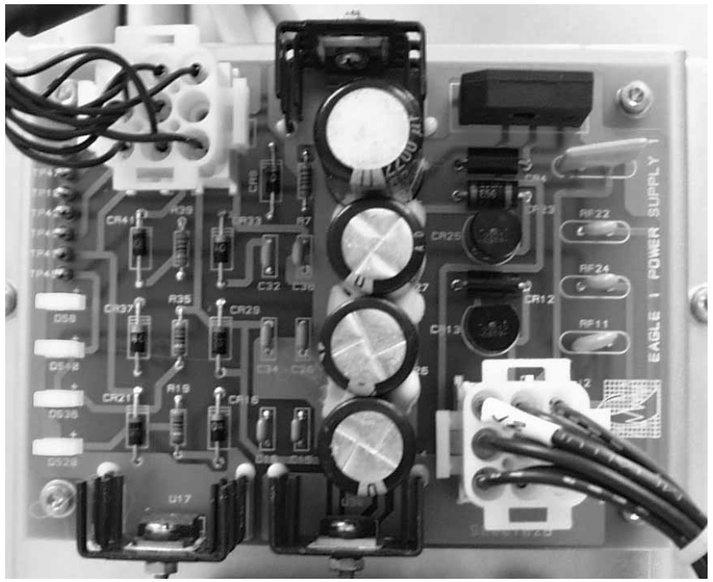
SECTION 2
TBS A2 A1, 2238038 (TUBE STAND POWER INTERFACE)



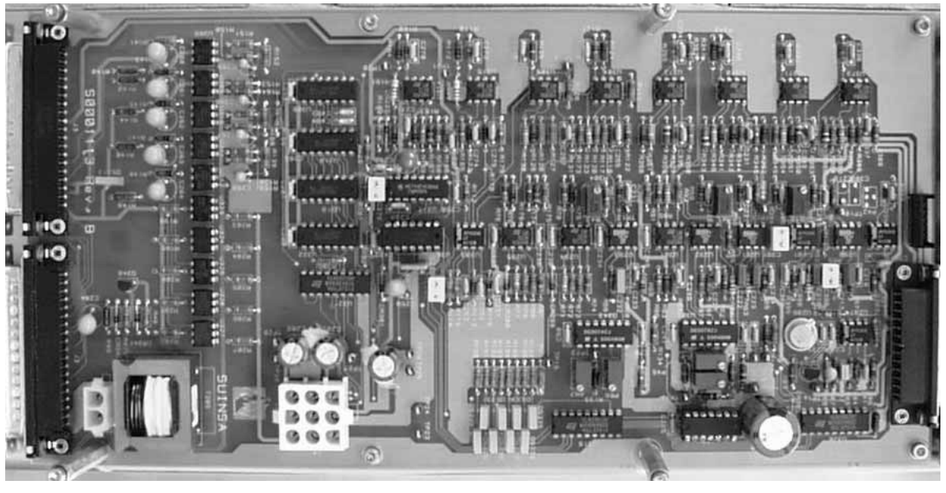

A
B
C
D
E
4
3
2
1
J1
1
2
3
4
5
6
AMP826843−1
CR2
V275L40
2
1
J7
1
2
3
4
AMP350430−1
J6
1
2
AMP350428−1
J5
1
2
3
AMP350429−1
J8
1
2
3
4
5
6
AMP826843−1
J9
1
2
3
4
5
6
SPARE (NO USED)
AMP826843−1
J3
1
2
AMP350428−1
F10
8A sl
TB5
1
Ftab
TB4
1
Ftab
TB3
1
Ftab
TB2
1
Ftab
TB1
1
Ftab
J4
9
8
7
6
5
4
3
2
1
AMP350432−1
R11 0H
R12 0H
R13 0H
R14 0H
R12 , R13 & R14 ARE NOT ASSEMBLED
PLACE JP1 ACCORDING THE
COLLIMATOR LAMP VOLTAGE
ESPECIFIED IN SERVICE MANUAL
Title
EAGLE 1 TUBE STAND POWER INTERFACE
Size
A
Document Number
S0001095
Rev
1
Date: Friday, May 14, 1999
Sheet 1 of 1

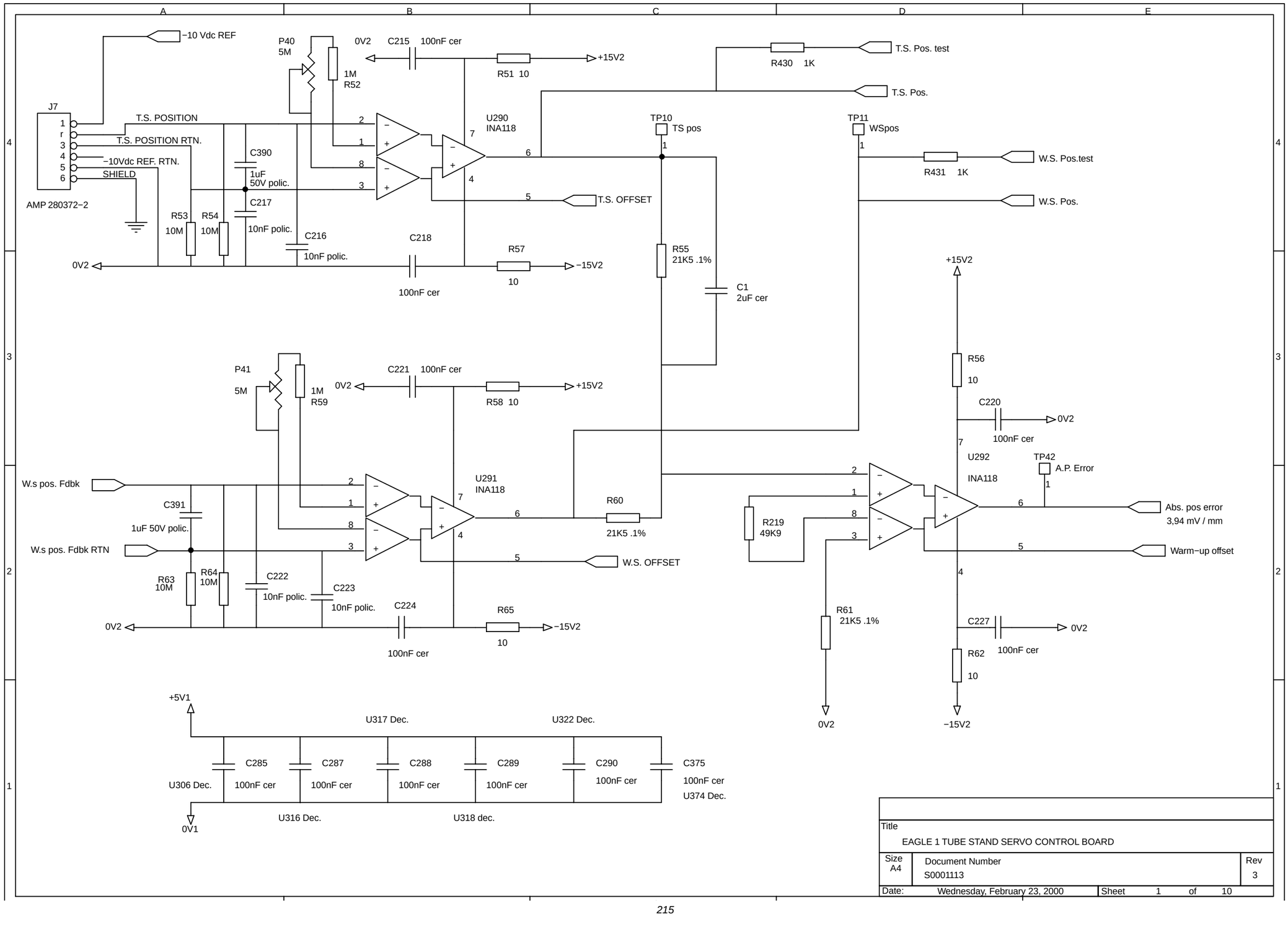
SECTION 3
TBS A2 A2, 2237652 (POWER SUPPLY)

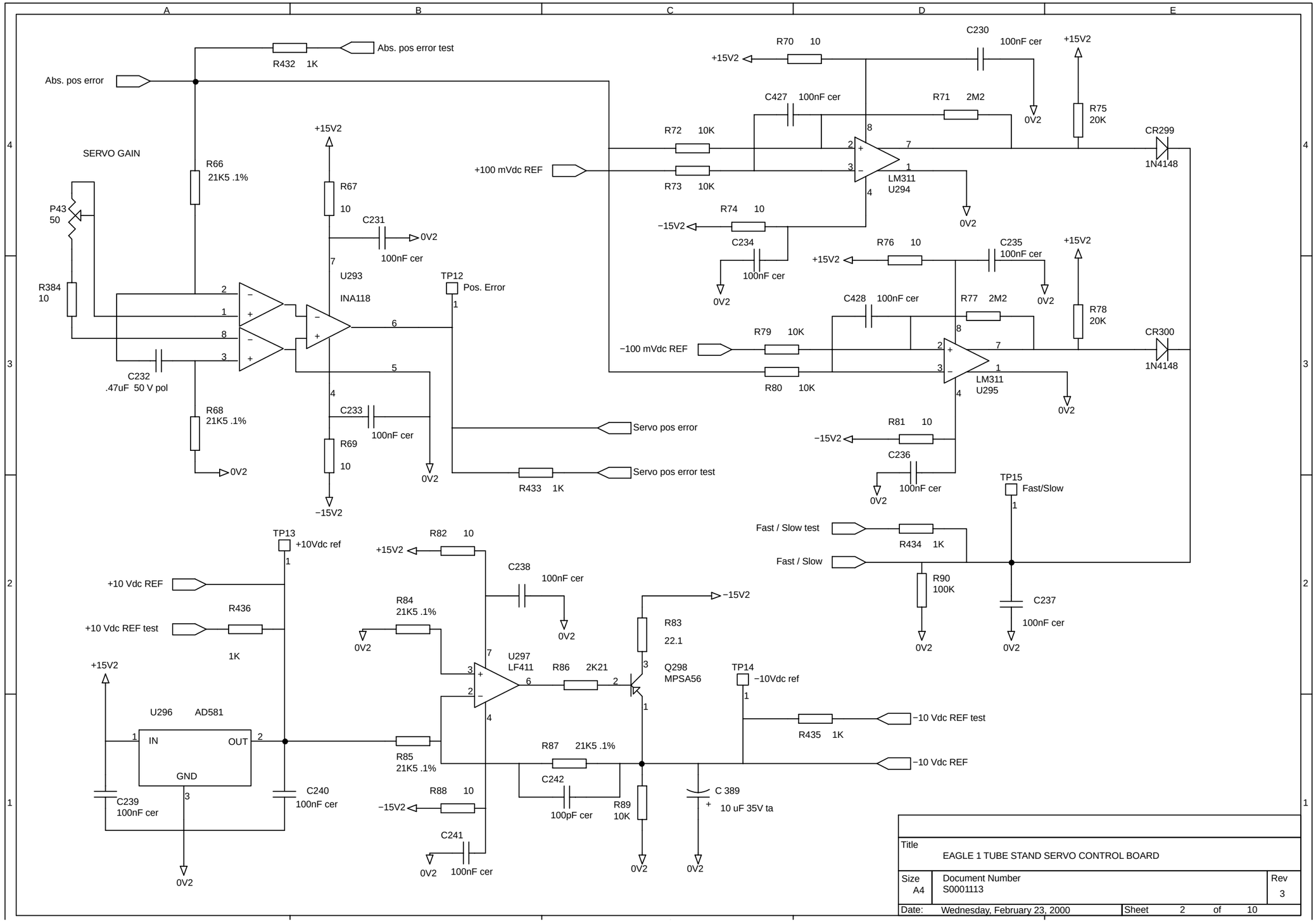
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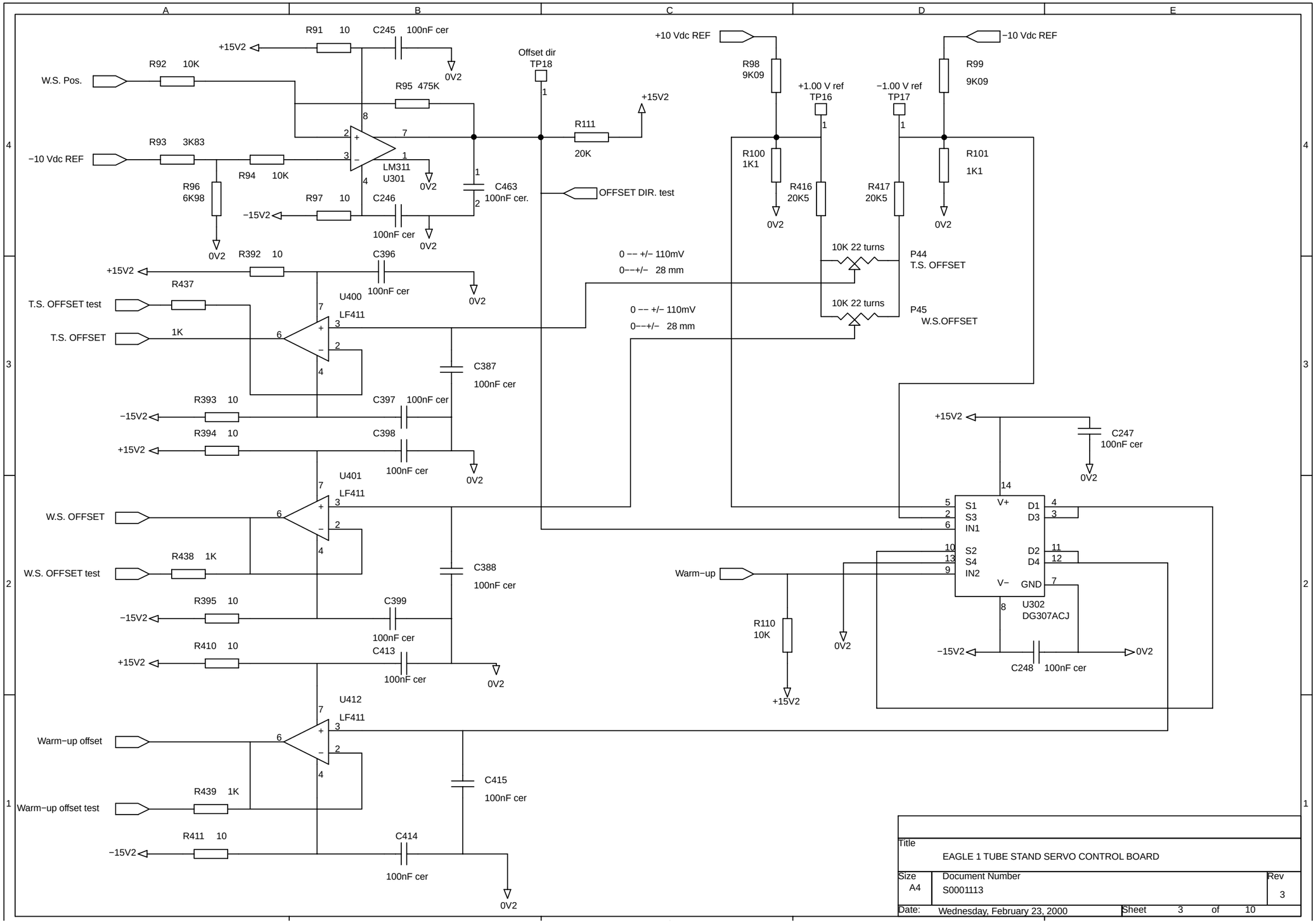


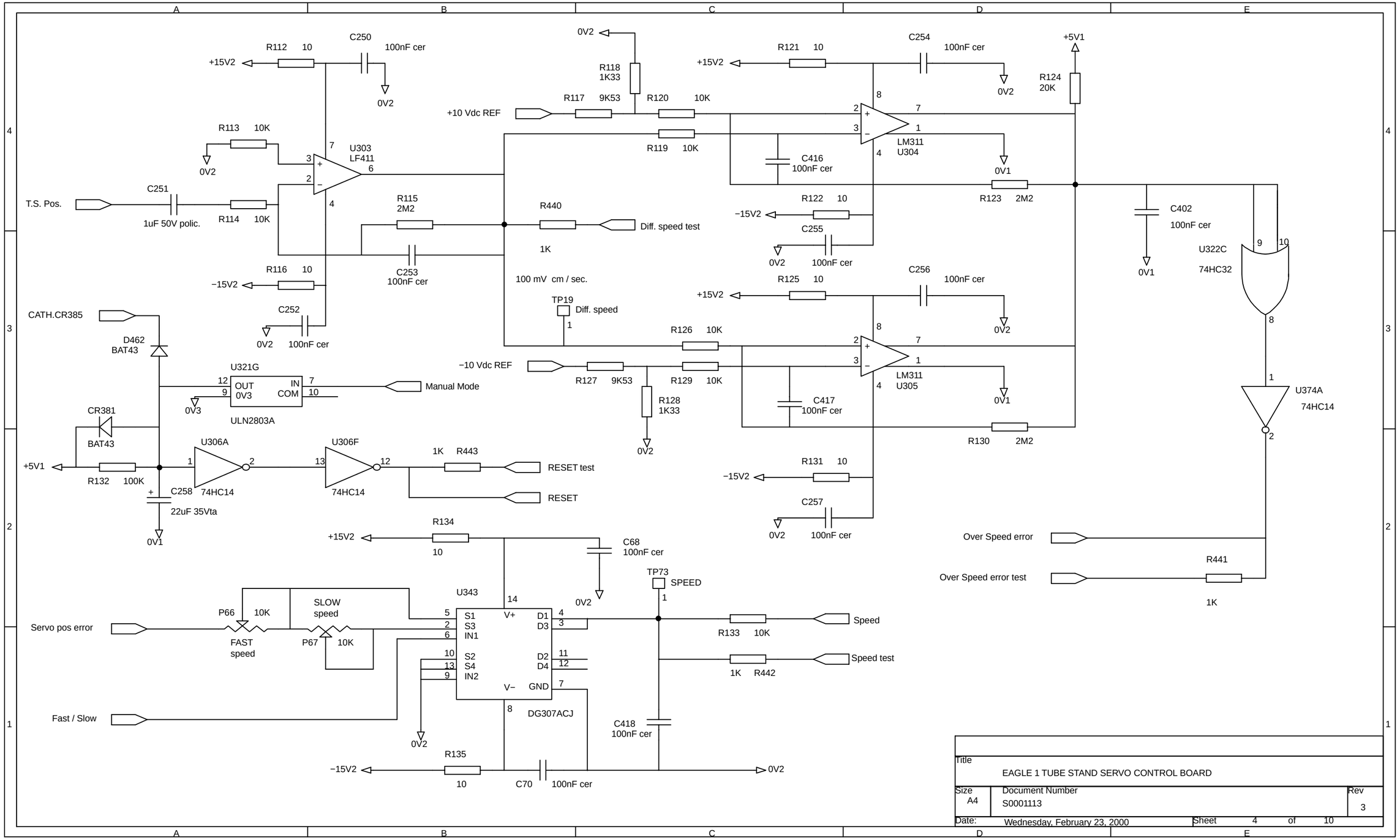
SECTION 4
TBS A2 A3, 2238040 (TUBE STAND CONTROL BOARD)

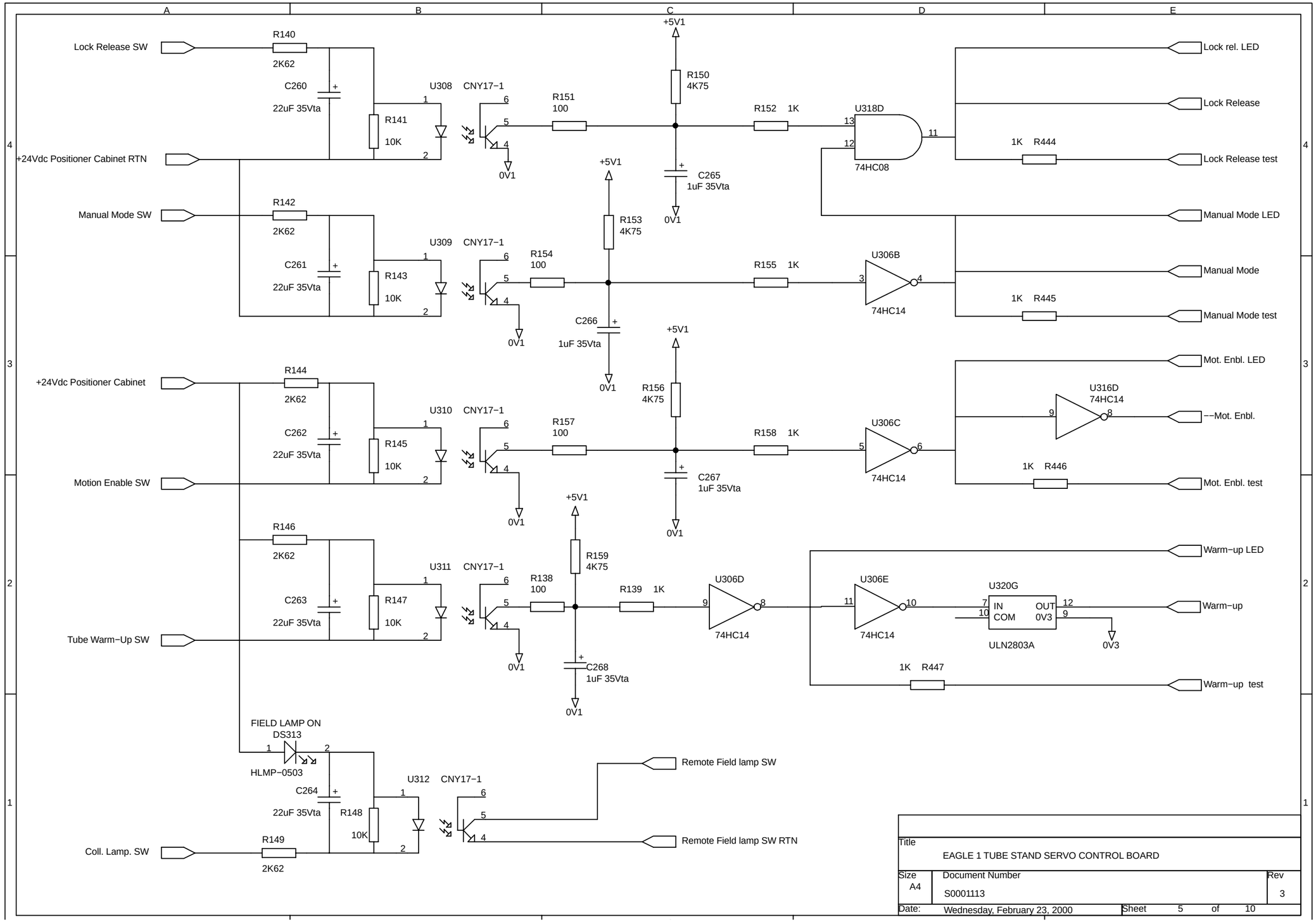


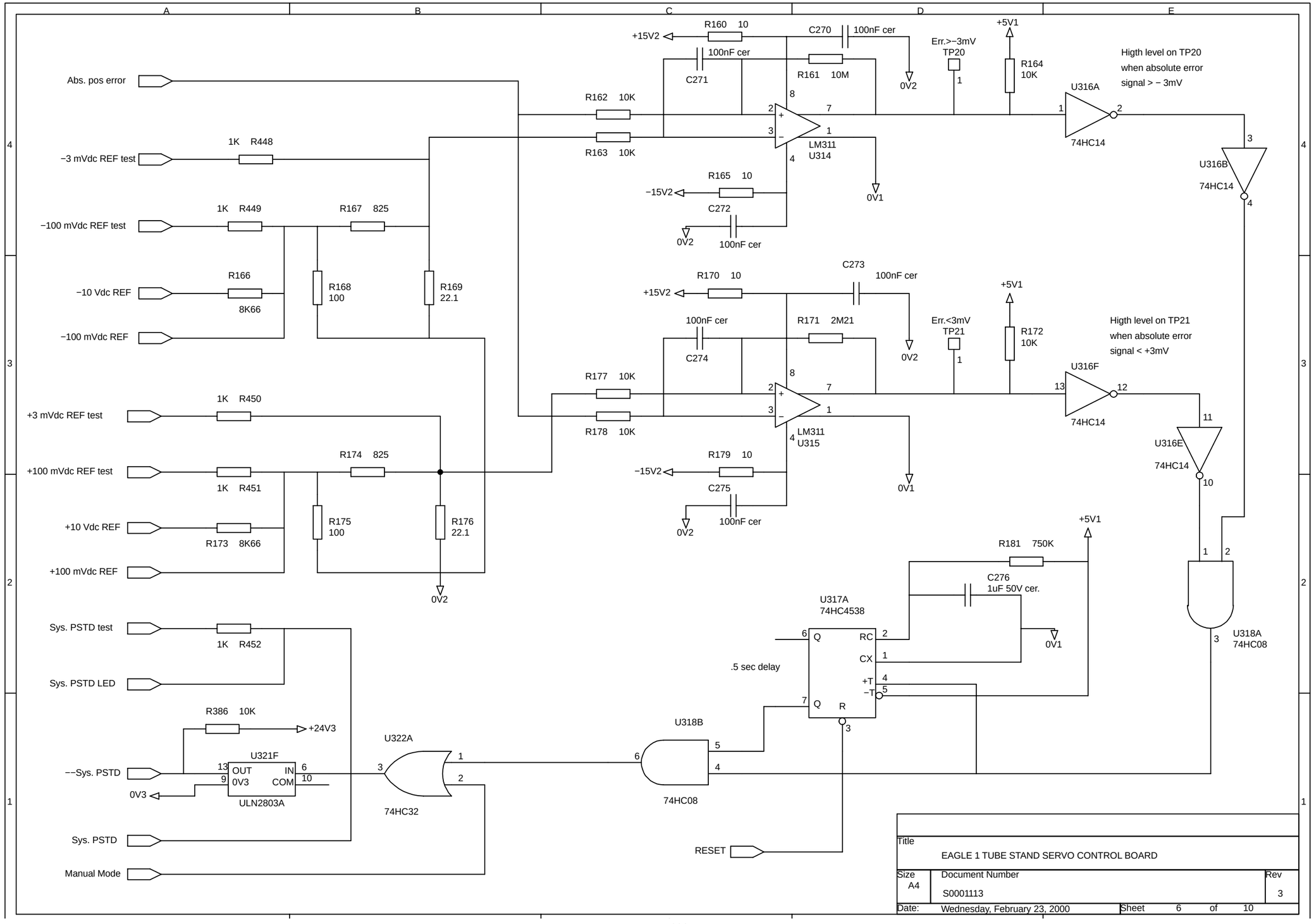

−10 Vdc REF
P40
5M
1M
R52
0V2
C215
100nF cer
R51 10
+15V2
R430 1K
T.S. Pos. test
T.S. Pos.
J7
T.S. POSITION
T.S. POSITION RTN.
−10Vdc REF. RTN.
SHIELD
AMP 280372−2
C390
1uF
50V polic.
C217
10nF polic.
C216
10nF polic.
R53
10M
R54
10M
U290
INA118
TP10
TS pos
TP11
WSpos
R431 1K
W.S. Pos.test
W.S. Pos.
T.S. OFFSET
C218
100nF cer
R57
10
−15V2
R55
21K5 .1%
C1
2uF cer
+15V2
R56
10
C220
100nF cer
0V2
P41
5M
1M
R59
C221
100nF cer
R58 10
U291
INA118
W.s pos. Fdbk
W.s pos. Fdbk RTN
C391
1uF 50V polic.
R63
10M
R64
10M
C222
10nF polic.
C223
10nF polic.
C224
100nF cer
R65
10
R60
21K5 .1%
W.S. OFFSET
U292
INA118
TP42
A.P. Error
Abs. pos error
3,94 mV / mm
Warm−up offset
R219
49K9
R61
21K5 .1%
C227
100nF cer
R62
10
+5V1
U317 Dec.
U322 Dec.
C285
C287
C288
C289
C290
C375
100nF cer
U306 Dec.
U316 Dec.
U318 dec.
U374 Dec.
0V1
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size
A4
Document Number
S0001113
Rev
3
Date:
Wednesday, February 23, 2000
Sheet 1 of 10


A
B
C
D
E
Abs. pos error test
R432 1K
Abs. pos error
SERVO GAIN
R66
21K5 .1%
P43
50
R384
10
C232
.47uF 50 V pol
R68
21K5 .1%
0V2
+15V2
R67
10
C231
100nF cer
0V2
U293
INA118
TP12
Pos. Error
Servo pos error
Servo pos error test
R433 1K
C233
100nF cer
R69
10
−15V2
+100 mVdc REF
−100 mVdc REF
R70 10
C230
100nF cer
C427 100nF cer
R71 2M2
R72 10K
R73 10K
LM311
U294
R74 10
C234
100nF cer
R75
20K
CR299
1N4148
R76 10
C235
100nF cer
C428 100nF cer
R77 2M2
R78
20K
CR300
1N4148
R79 10K
R80 10K
LM311
U295
R81 10
C236
100nF cer
TP15
Fast/Slow
Fast / Slow test
R434 1K
Fast / Slow
R90
100K
C237
100nF cer
TP13
+10Vdc ref
+10 Vdc REF
+10 Vdc REF test
R436
1K
U296 AD581
IN
OUT
GND
C239
100nF cer
C240
100nF cer
R82 10
C238
100nF cer
R84
21K5 .1%
R85
21K5 .1%
U297
LF411
R86 2K21
Q298
MPSA56
R83
22.1
TP14
−10Vdc ref
−10 Vdc REF test
R435 1K
−10 Vdc REF
R87 21K5 .1%
C242
100pF cer
R88 10
C241
100nF cer
R89
10K
C 389
10 uF 35V ta
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size
A4
Document Number
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3
Date:
Wednesday, February 23, 2000
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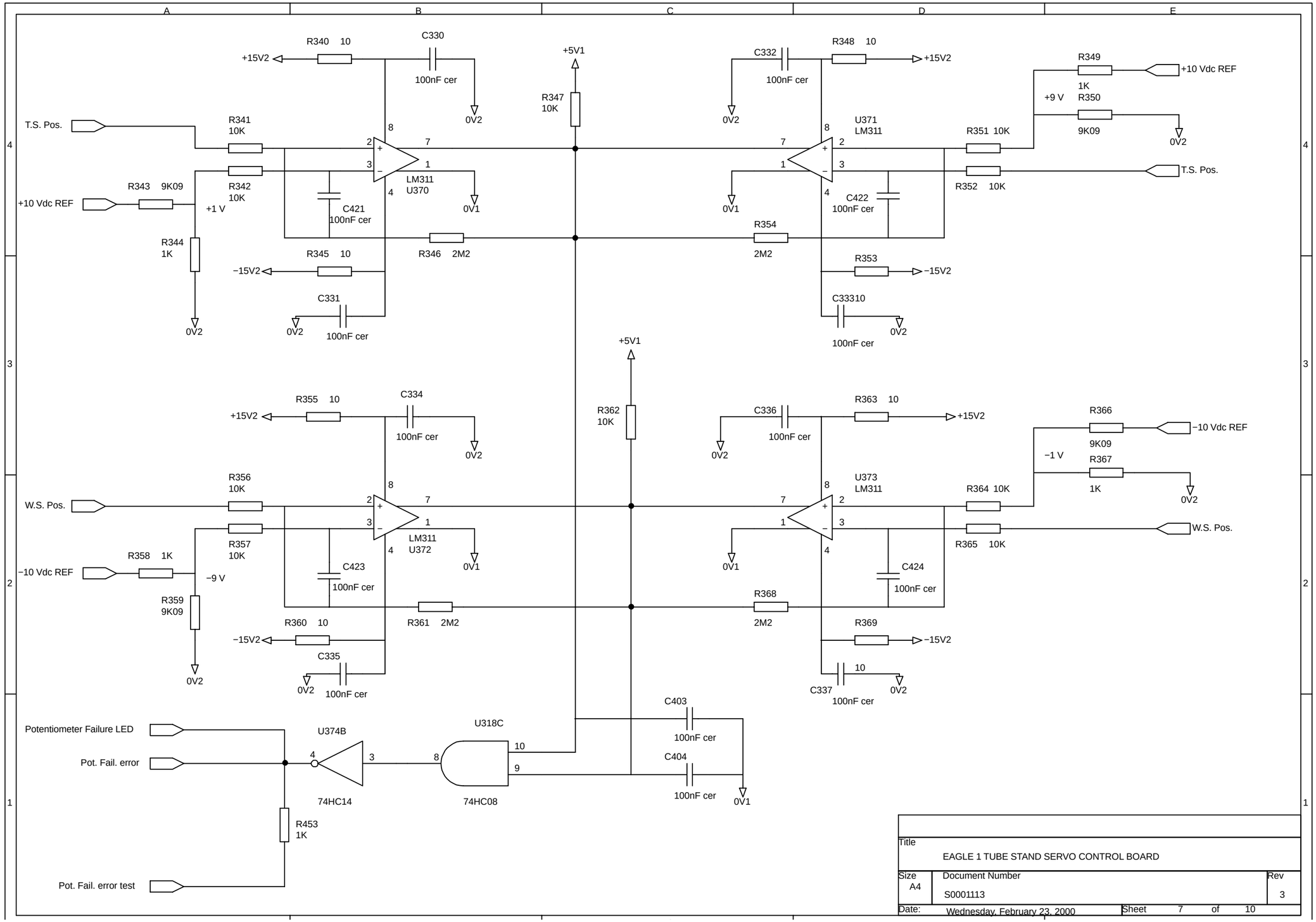

R91 10 C245 100nF cer
+15V2
0V2
R92 10K
W.S. Pos.
R95 475K
Offset dir
TP18
R111
+15V2
20K
R93 3K83
−10 Vdc REF
R94 10K
LM311
U301
R96
6K98
C463
100nF cer.
OFFSET DIR. test
R97 10 C246
−15V2
100nF cer
+10 Vdc REF
R98
9K09
+1.00 V ref
TP16
−1.00 V ref
TP17
−10 Vdc REF
R99
9K09
R100
1K1
R416
20K5
R417
20K5
R101
1K1
R392 10 C396
+15V2
R437
T.S. OFFSET test
U400
LF411
100nF cer
T.S. OFFSET
1K
0 −− +/− 110mV
0−−+/− 28 mm
10K 22 turns
P44
T.S. OFFSET
P45
W.S.OFFSET
C387
100nF cer
R393 10 C397 100nF cer
−15V2
R394 10 C398
+15V2
100nF cer
U401
LF411
W.S. OFFSET
R438 1K
W.S. OFFSET test
C388
100nF cer
R395 10 C399
−15V2
100nF cer
R410 10 C413
+15V2
100nF cer
U412
LF411
Warm−up offset
R439 1K
Warm−up offset test
C415
100nF cer
R411 10 C414
−15V2
100nF cer
Warm−up
R110
10K
+15V2
C247
100nF cer
U302
DG307ACJ
S1
S3
IN1
S2
S4
IN2
D1
D3
D2
D4
V+
V−
GND
C248 100nF cer
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size
A4
Document Number
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Rev
3
Date: Wednesday, February 23, 2000
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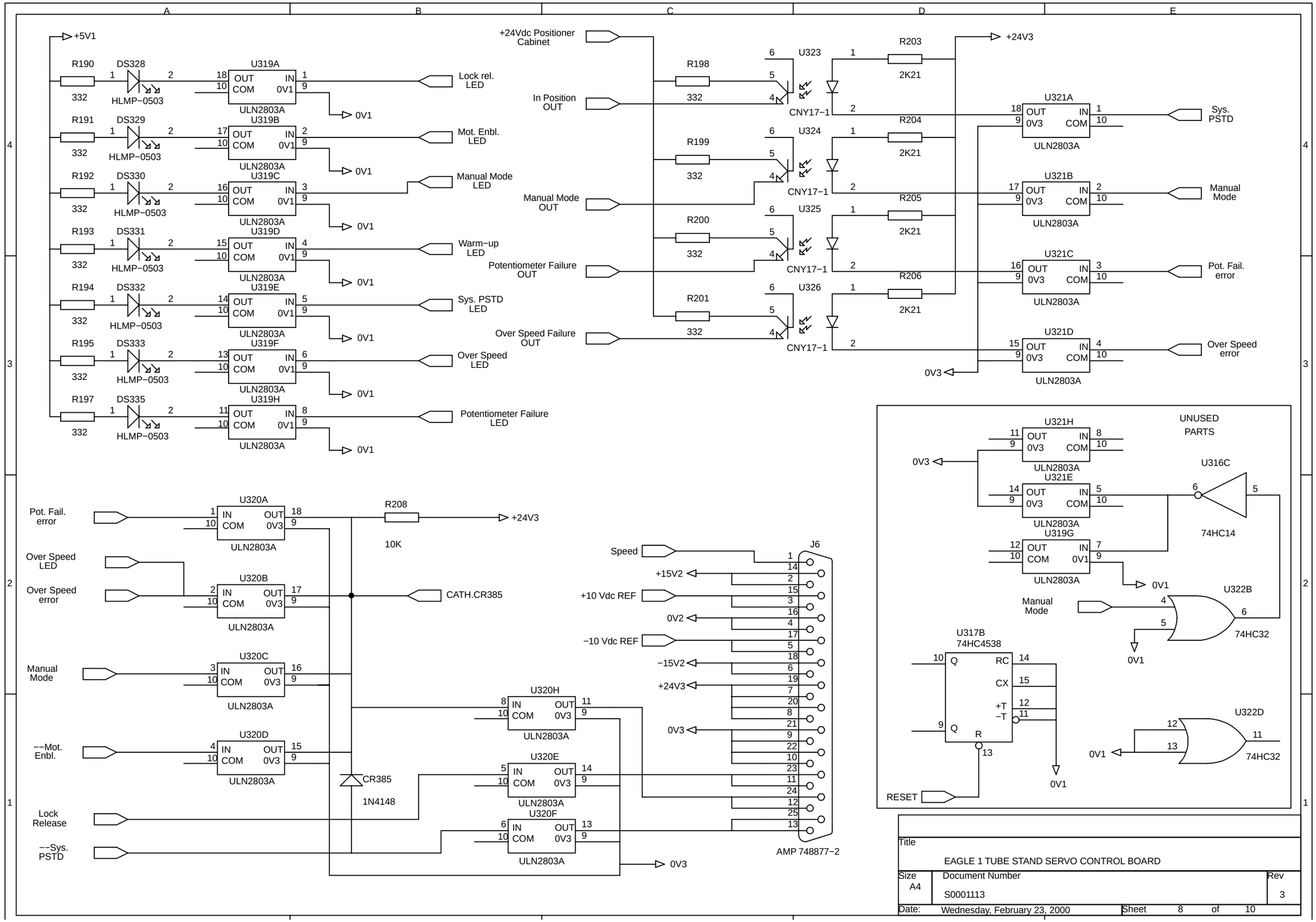

R112 10
C250 100nF cer
+15V2
0V2
R118 1K33
0V2
R117 9K53
R120 10K
+10 Vdc REF
R119 10K
R113 10K
0V2
U303 LF411
C251
T.S. Pos.
1uF 50V polic.
R114 10K
R115 2M2
C253 100nF cer
R440
Diff. speed test
1K
100 mV cm / sec.
R116 10
−15V2
C252
0V2 100nF cer
TP19
Diff. speed
CATH.CR385
D462 BAT43
U321G
OUT 0V3
IN COM
Manual Mode
ULN2803A
CR381
BAT43
U306A
U306F
74HC14
74HC14
+5V1
R132 100K
C258 22uF 35Vta
0V1
1K R443
RESET test
RESET
R121 10
C254 100nF cer
+15V2
0V2
+5V1
R124 20K
R122 10
−15V2
C255
0V2 100nF cer
C416 100nF cer
LM311 U304
0V1
R123 2M2
C402 100nF cer
0V1
U322C 74HC32
R125 10
C256 100nF cer
+15V2
0V2
R126 10K
−10 Vdc REF
R127 9K53
R129 10K
R128 1K33
0V2
C417 100nF cer
LM311 U305
0V1
R130 2M2
R131 10
−15V2
C257
0V2 100nF cer
U374A 74HC14
Over Speed error
R441
Over Speed error test
1K
R134
10
+15V2
C68 100nF cer
0V2
TP73
SPEED
U343
P66 10K
SLOW speed
Servo pos error
FAST speed
P67 10K
S1 S3 IN1
S2 S4 IN2
V+ V− GND
D1 D3 D2 D4
DG307ACJ
R133 10K
Speed
1K R442
Speed test
Fast / Slow
C418 100nF cer
0V2
R135
10
−15V2
C70 100nF cer
0V2
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size A4
Document Number S0001113
Rev 3
Date: Wednesday, February 23, 2000
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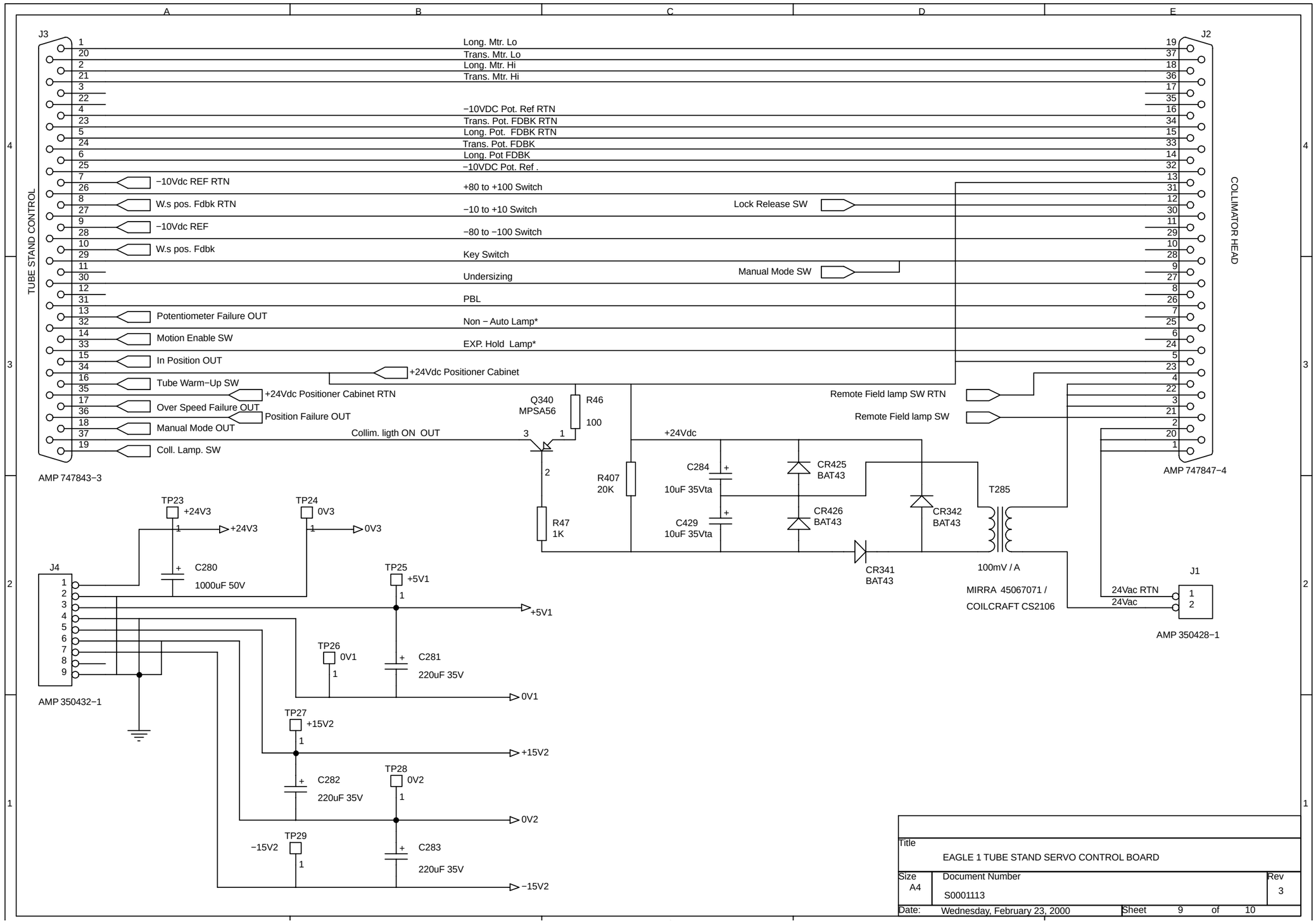

A
B
C
D
E
Lock Release SW
R140
2K62
C260
22uF 35Vta
U308 CNY17−1
R141
10K
+24Vdc Positioner Cabinet RTN
R151
100
+5V1
R150
4K75
R152 1K
U318D
74HC08
Lock rel. LED
Lock Release
1K R444
Lock Release test
C265
1uF 35Vta
0V1
Manual Mode SW
R142
2K62
C261
22uF 35Vta
U309 CNY17−1
R143
10K
R154
100
R153
4K75
R155 1K
U306B
74HC14
Manual Mode LED
Manual Mode
1K R445
Manual Mode test
C266
1uF 35Vta
+24Vdc Positioner Cabinet
R144
2K62
C262
22uF 35Vta
U310 CNY17−1
R145
10K
Motion Enable SW
R157
100
R156
4K75
R158 1K
U306C
74HC14
C267
1uF 35Vta
Mot. Enbl. LED
U316D
74HC14
−−Mot. Enbl.
1K R446
Mot. Enbl. test
R146
2K62
C263
22uF 35Vta
U311 CNY17−1
R147
10K
Tube Warm−Up SW
R138
100
R159
4K75
R139 1K
U306D
74HC14
U306E
74HC14
U320G
IN
COM
OUT
0V3
ULN2803A
Warm−up LED
Warm−up
1K R447
Warm−up test
C268
1uF 35Vta
FIELD LAMP ON
DS313
HLMP−0503
C264
22uF 35Vta
U312 CNY17−1
R148
10K
Coll. Lamp. SW
R149
2K62
Remote Field lamp SW
Remote Field lamp SW RTN
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size
A4
Document Number
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3
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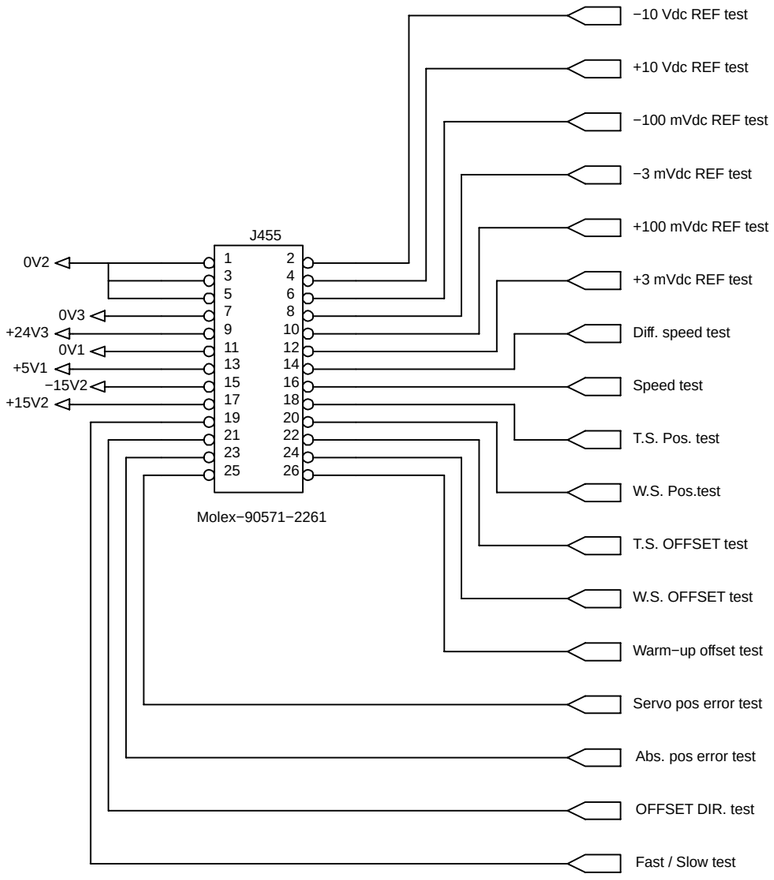
Title	EAGLE 1 TUBE STAND SERVO CONTROL BOARD	
Size A4	Document Number S0001113	Rev 3
Date: Wednesday, February 23, 2000	Sheet 6 of 10	


A
B
C
D
E
R340 10
C330
+15V2
100nF cer
0V2
+5V1
R347
10K
C332
R348 10
+15V2
100nF cer
0V2
R349
1K
+10 Vdc REF
+9 V
R350
9K09
0V2
T.S. Pos.
R341
10K
U371
LM311
R351 10K
R343 9K09
+10 Vdc REF
+1 V
R342
10K
C421
100nF cer
LM311
U370
0V1
C422
100nF cer
R352 10K
T.S. Pos.
R344
1K
R345 10
R346 2M2
R354
2M2
R353
−15V2
C331
C33310
0V2
100nF cer
0V2
100nF cer
+5V1
R362
10K
C334
R355 10
+15V2
100nF cer
0V2
C336
R363 10
+15V2
100nF cer
0V2
R366
9K09
−10 Vdc REF
−1 V
R367
1K
0V2
R356
10K
U373
LM311
R364 10K
W.S. Pos.
R357
10K
LM311
U372
0V1
R365 10K
W.S. Pos.
R358 1K
−10 Vdc REF
−9 V
C423
100nF cer
C424
100nF cer
R359
9K09
R360 10
R361 2M2
R368
2M2
R369
−15V2
C335
C337
10
0V2
100nF cer
0V2
100nF cer
Potentiometer Failure LED
Pot. Fail. error
U374B
74HC14
U318C
74HC08
C403
100nF cer
C404
100nF cer
0V1
R453
1K
Pot. Fail. error test
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size
A4
Document Number
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3
Date:
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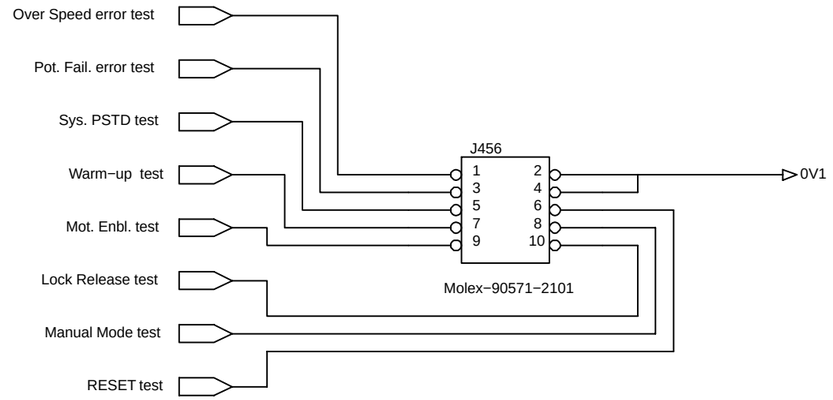

A
B
C
D
E
+5V1
R190
DS328
332
HLMP−0503
U319A
ULN2803A
Lock rel. LED
R191
DS329
U319B
Mot. Enbl. LED
R192
DS330
U319C
Manual Mode LED
R193
DS331
U319D
Warm−up LED
R194
DS332
U319E
Sys. PSTD LED
R195
DS333
U319F
Over Speed LED
R197
DS335
U319H
Potentiometer Failure LED
0V1
+24Vdc Positioner Cabinet
In Position OUT
Manual Mode OUT
Potentiometer Failure OUT
Over Speed Failure OUT
R198
R199
R200
R201
U323
U324
U325
U326
CNY17−1
R203
R204
R205
R206
2K21
+24V3
U321A
U321B
U321C
U321D
Sys. PSTD
Manual Mode
Pot. Fail. error
Over Speed error
0V3
UNUSED PARTS
U321H
U321E
U319G
U316C
74HC14
U322B
74HC32
U322D
U317B
74HC4538
RESET
U320A
U320B
U320C
U320D
U320H
U320E
U320F
Pot. Fail. error
Over Speed LED
Over Speed error
Manual Mode
−−Mot. Enbl.
Lock Release
−−Sys. PSTD
R208
10K
+24V3
CATH.CR385
CR385
1N4148
J6
Speed
+15V2
+10 Vdc REF
0V2
−10 Vdc REF
−15V2
+24V3
0V3
AMP 748877−2
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size A4
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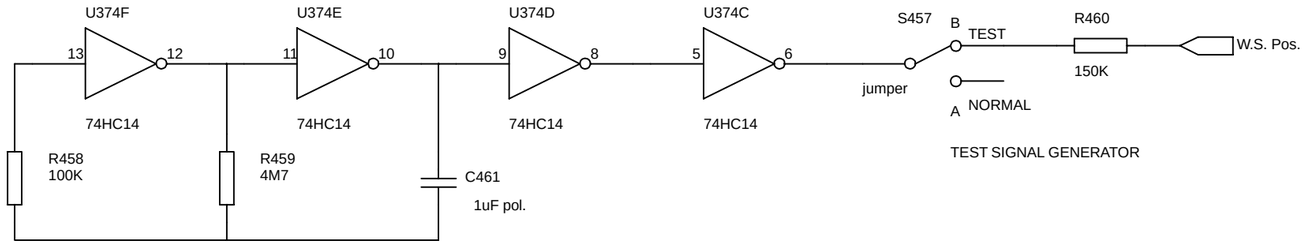

A
B
C
D
E
J3
TUBE STAND CONTROL
AMP 747843−3
1 Long. Mtr. Lo
20 Trans. Mtr. Lo
2 Long. Mtr. Hi
21 Trans. Mtr. Hi
3
22
4 −10VDC Pot. Ref RTN
23 Trans. Pot. FDBK RTN
5 Long. Pot. FDBK RTN
24 Trans. Pot. FDBK
6 Long. Pot FDBK
25 −10VDC Pot. Ref .
7 26 −10Vdc REF RTN
8 27 W.s pos. Fdbk RTN
9 28 −10Vdc REF
10 29 W.s pos. Fdbk
11 30 Undersizing
12 31 PBL
13 32 Potentiometer Failure OUT
14 33 Motion Enable SW
15 In Position OUT
34 +24Vdc Positioner Cabinet
16 35 Tube Warm−Up SW
+24Vdc Positioner Cabinet RTN
17 36 Over Speed Failure OUT
Position Failure OUT
18 37 Manual Mode OUT
19 Coll. Lamp. SW
Collim. ligth ON OUT
Q340
MPSA56
R46
100
3
1
2
R47
1K
R407
20K
+24Vdc
C284
10uF 35Vta
C429
10uF 35Vta
CR425
BAT43
CR426
BAT43
CR341
BAT43
CR342
BAT43
T285
100mV / A
MIRRA 45067071 /
COILCRAFT CS2106
Lock Release SW
Manual Mode SW
Remote Field lamp SW RTN
Remote Field lamp SW
J2
COLLIMATOR HEAD
AMP 747847−4
19 37 18 36 17 35 16 34 15 33 14 32 13 31 12 30 11 29 10 28 9 27 8 26 7 25 6 24 5 23 4 22 3 21 2 20 1
J1
24Vac RTN
24Vac
1
2
AMP 350428−1
TP23 +24V3
TP24 0V3
J4
AMP 350432−1
C280
1000uF 50V
TP25 +5V1
TP26 0V1
C281
220uF 35V
TP27 +15V2
C282
220uF 35V
TP28 0V2
TP29 −15V2
C283
220uF 35V
Title
EAGLE 1 TUBE STAND SERVO CONTROL BOARD
Size A4
Document Number S0001113
Rev 3
Date: Wednesday, February 23, 2000
Sheet 9 of 10

ANALOGIC TEST OUTPUTS



DIGITAL TEST OUTPUTS

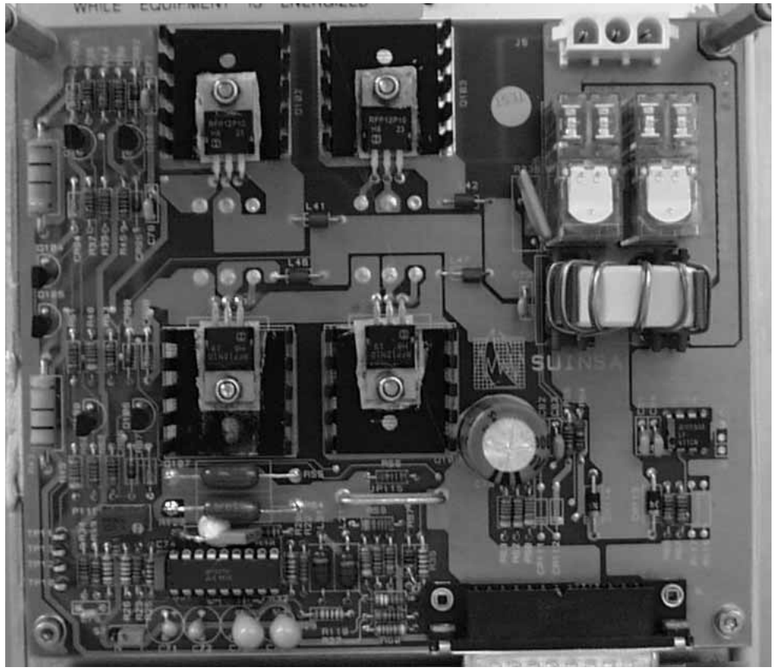




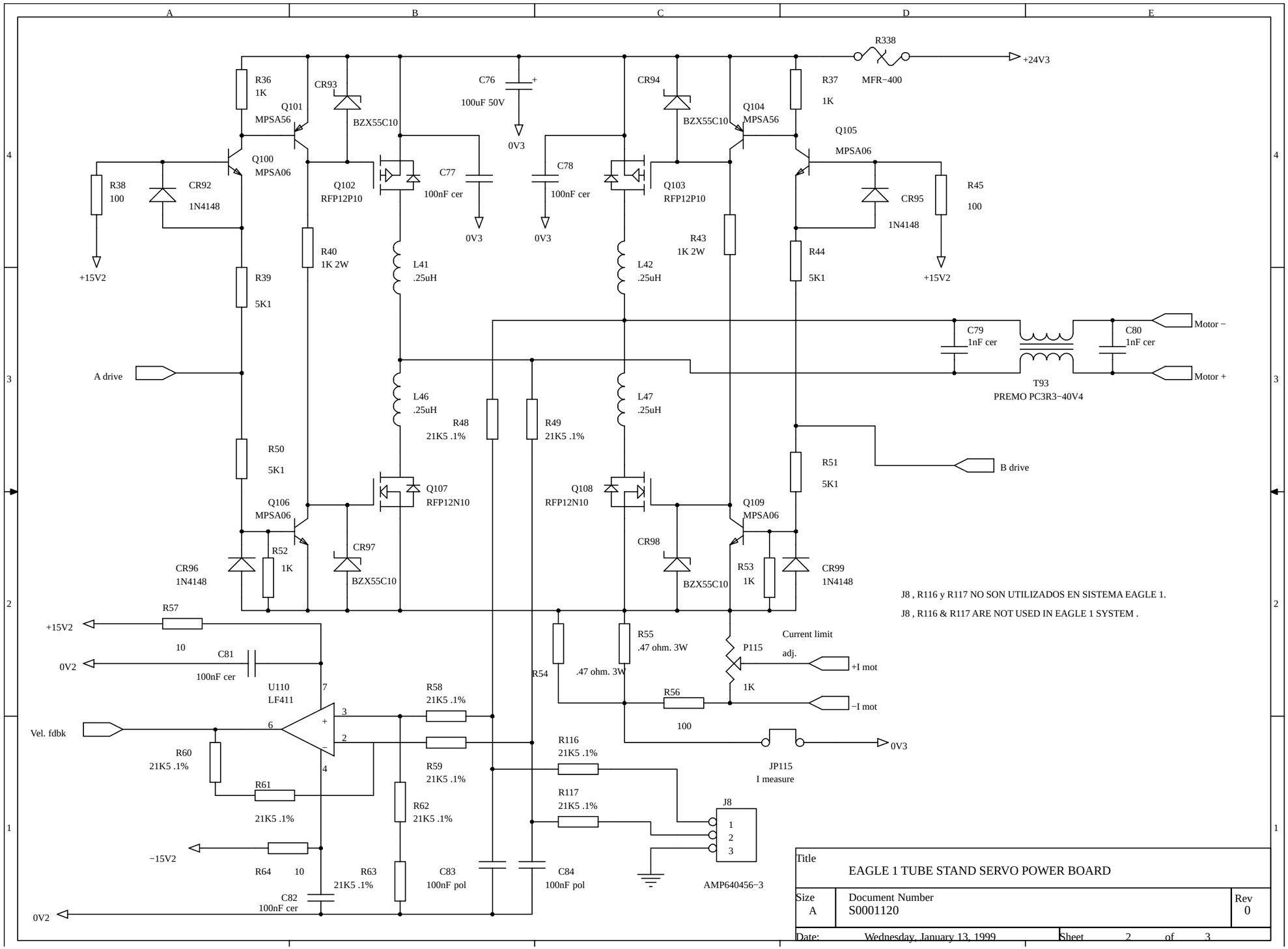
TEST SIGNAL GENERATOR

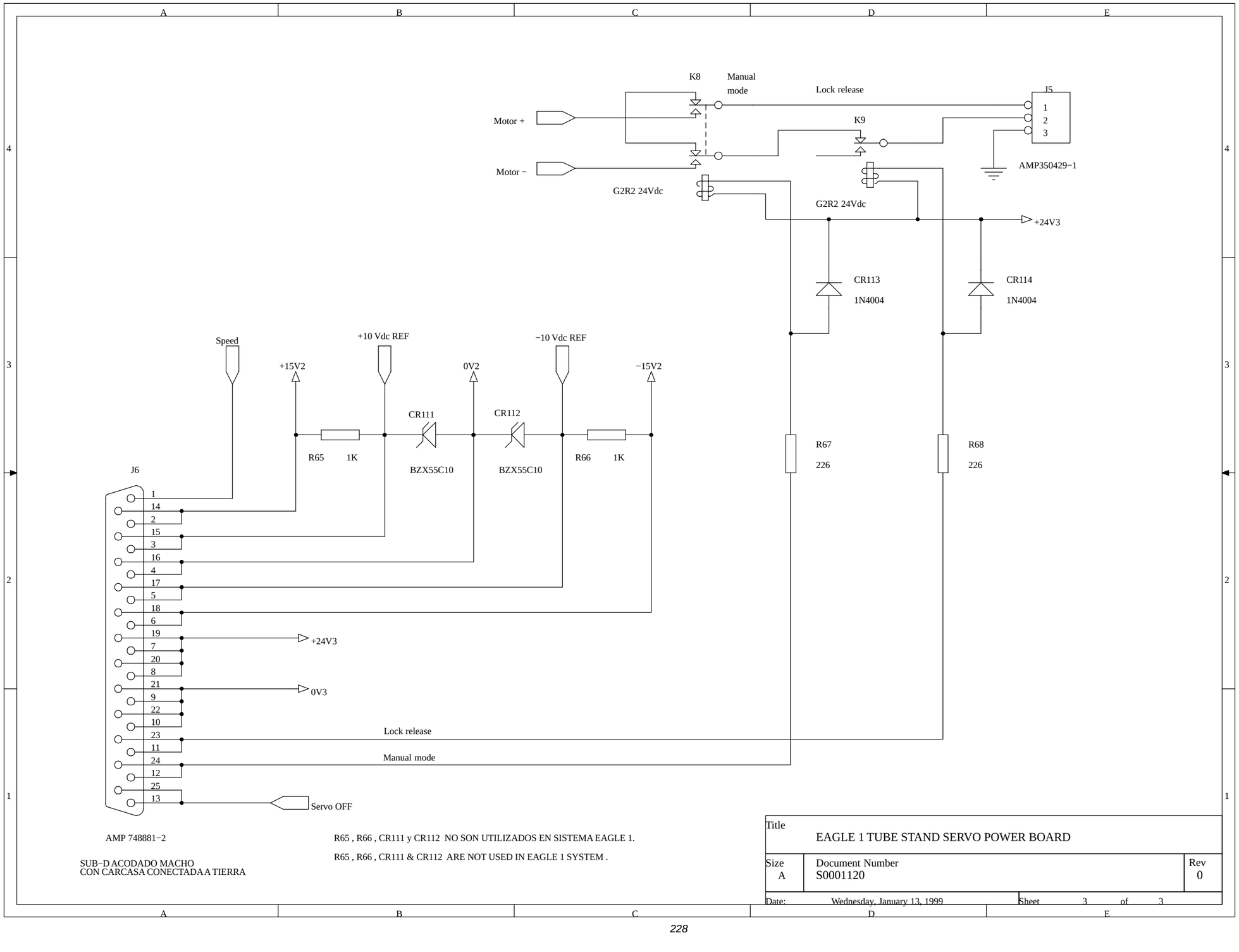
Title: EAGLE 1 TUBE STAND SERVO CONTROL BOARD			
Size: A4	Document Number: S0001113		Rev: 3
Date: Wednesday, February 23, 2000		Sheet 10 of 10	

SECTION 5
TBS A2 A4, 2238041 (TUBE STAND SERVO BOARD)



Title: EAGLE 1 TUBE STAND SERVO POWER BOARD		
Size: A	Document Number: S0001120	Rev: 0
Date: Wednesday, January 13, 1999	Sheet 1 of 3	

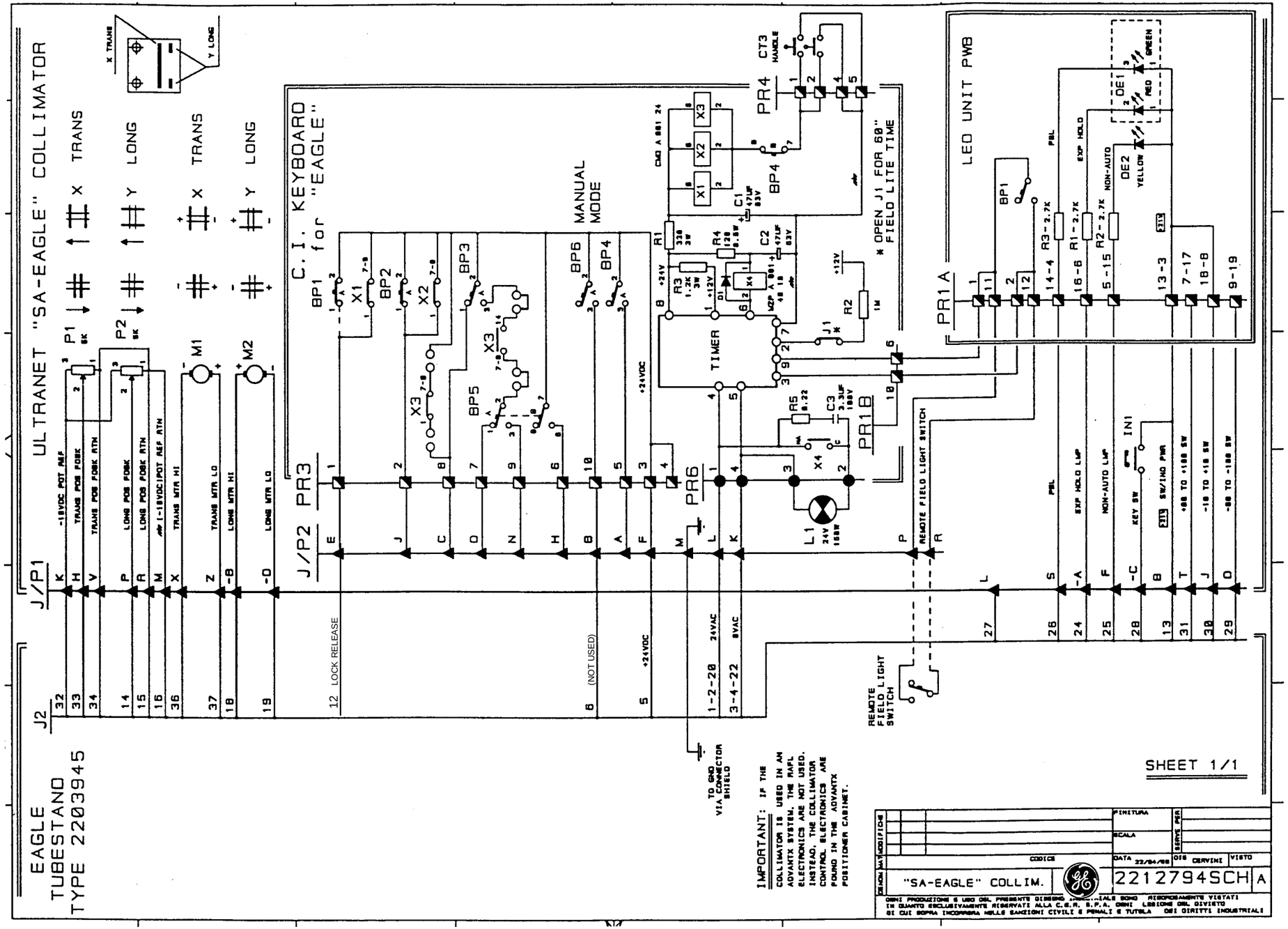

R338
+24V3
R36
1K
CR93
Q101
MPSA56
BZX55C10
C76
100uF 50V
0V3
CR94
BZX55C10
Q104
MPSA56
R37
MFR−400
1K
Q105
MPSA06
Q100
MPSA06
R38
100
CR92
1N4148
Q102
RFP12P10
C77
100nF cer
0V3
C78
100nF cer
0V3
Q103
RFP12P10
CR95
1N4148
R45
100
+15V2
R39
5K1
R40
1K 2W
L41
.25uH
L42
.25uH
R43
1K 2W
R44
5K1
+15V2
A drive
C79
1nF cer
C80
1nF cer
Motor −
Motor +
T93
PREMO PC3R3−40V4
L46
.25uH
R48
21K5 .1%
R49
21K5 .1%
L47
.25uH
R50
5K1
R51
5K1
B drive
Q106
MPSA06
Q107
RFP12N10
Q108
RFP12N10
Q109
MPSA06
R52
1K
CR97
BZX55C10
CR96
1N4148
CR98
BZX55C10
R53
1K
CR99
1N4148
J8 , R116 y R117 NO SON UTILIZADOS EN SISTEMA EAGLE 1.
J8 , R116 & R117 ARE NOT USED IN EAGLE 1 SYSTEM .
R57
10
+15V2
C81
100nF cer
0V2
R55
.47 ohm. 3W
R54
.47 ohm. 3W
P115
1K
Current limit
adj.
+I mot
−I mot
R56
100
U110
LF411
Vel. fdbk
R58
21K5 .1%
R59
21K5 .1%
R60
21K5 .1%
R61
21K5 .1%
R62
21K5 .1%
R116
21K5 .1%
R117
21K5 .1%
0V3
JP115
I measure
J8
1
2
3
AMP640456−3
−15V2
R64
10
R63
21K5 .1%
C82
100nF cer
C83
100nF pol
C84
100nF pol
0V2
Title
EAGLE 1 TUBE STAND SERVO POWER BOARD
Size
A
Document Number
S0001120
Rev
0
Date:
Wednesday, January 13, 1999
Sheet
2
of
3


K8
Manual mode
Lock release
J5
1
2
3
Motor +
Motor −
K9
AMP350429−1
G2R2 24Vdc
G2R2 24Vdc
+24V3
CR113
1N4004
CR114
1N4004
Speed
+15V2
+10 Vdc REF
0V2
−10 Vdc REF
−15V2
CR111
CR112
R65 1K
BZX55C10
BZX55C10
R66 1K
R67
226
R68
226
J6
1
14
2
15
3
16
4
17
5
18
6
19
7
20
8
21
9
22
10
23
11
24
12
25
13
+24V3
0V3
Lock release
Manual mode
Servo OFF
AMP 748881−2
SUB−D ACODADO MACHO
CON CARCASA CONECTADA A TIERRA
R65 , R66 , CR111 y CR112 NO SON UTILIZADOS EN SISTEMA EAGLE 1.
R65 , R66 , CR111 & CR112 ARE NOT USED IN EAGLE 1 SYSTEM .
Title
EAGLE 1 TUBE STAND SERVO POWER BOARD
Size A
Document Number S0001120
Rev 0
Date: Wednesday, January 13, 1999
Sheet 3 of 3

SECTION 6
TBS A6, 46−155400G277 (X−RAY TUBE)

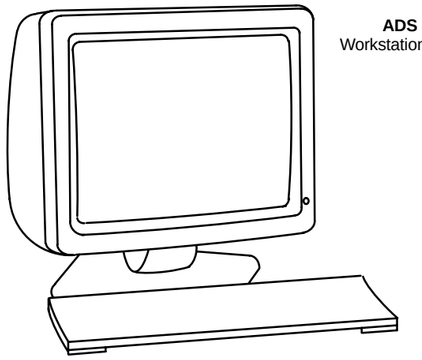
No Schematic Available − See Stator Cable MIS Chart

SECTION 7
TBS A7, 2212794 (COLLIMATOR)

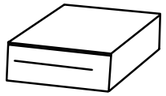


CHAPTER 7 − ACQUISITION DIGITAL STATION (ADS) AND ADVANTX CONSOLE (SCC1)

SECTION 1
ADS, 2219402 & 2219403 (ACQUISITION DIGITAL STATION)

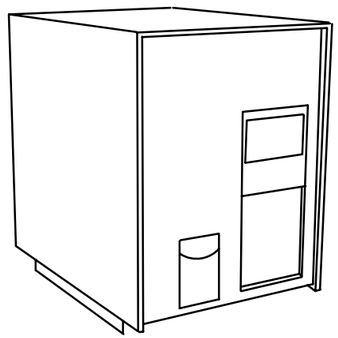


ADS A8
Workstation Monitor



ADS A12
CDROM Burner (with U10 only)

ADS
Acquisition Digital Station

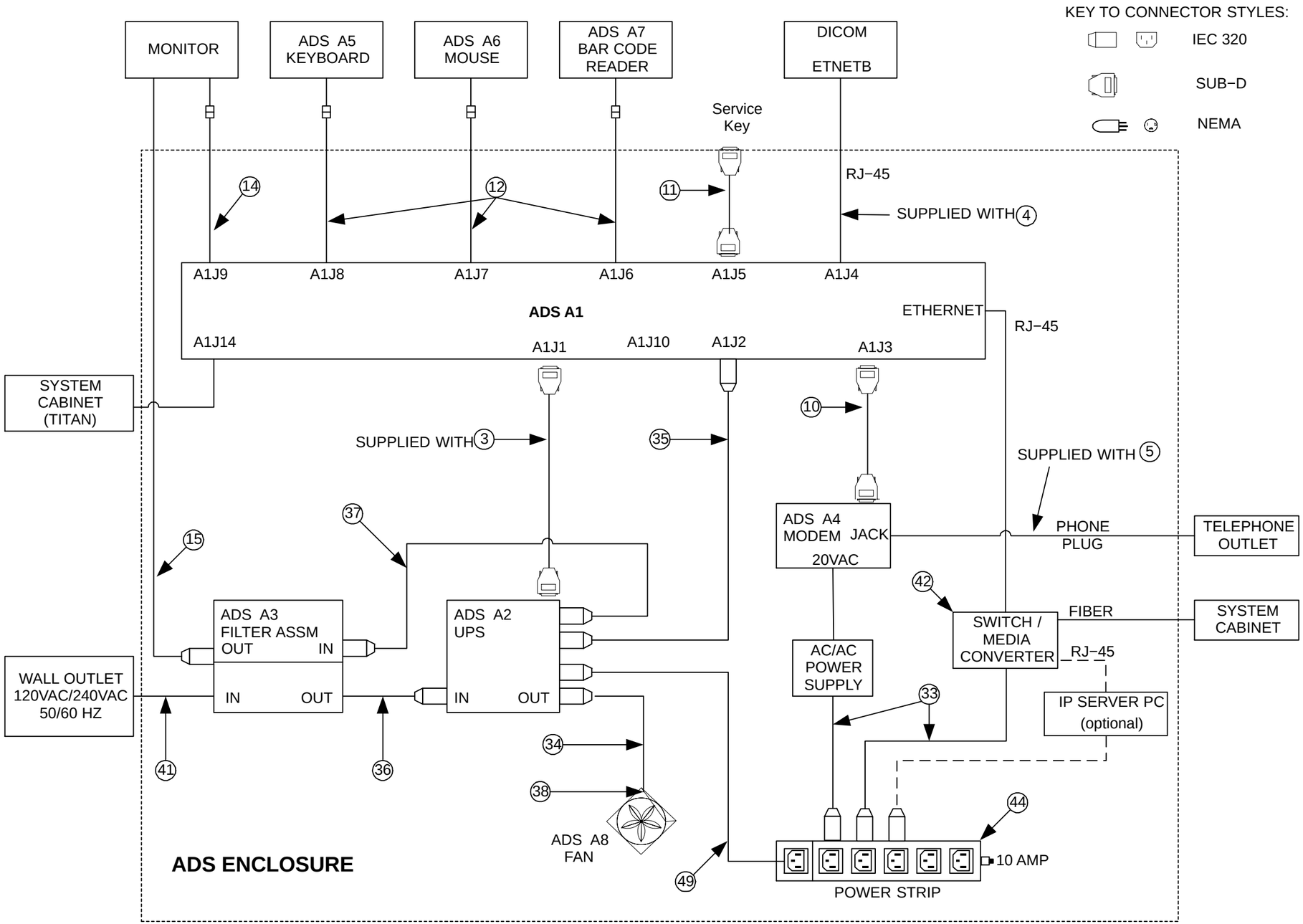


SUN U10 (old)

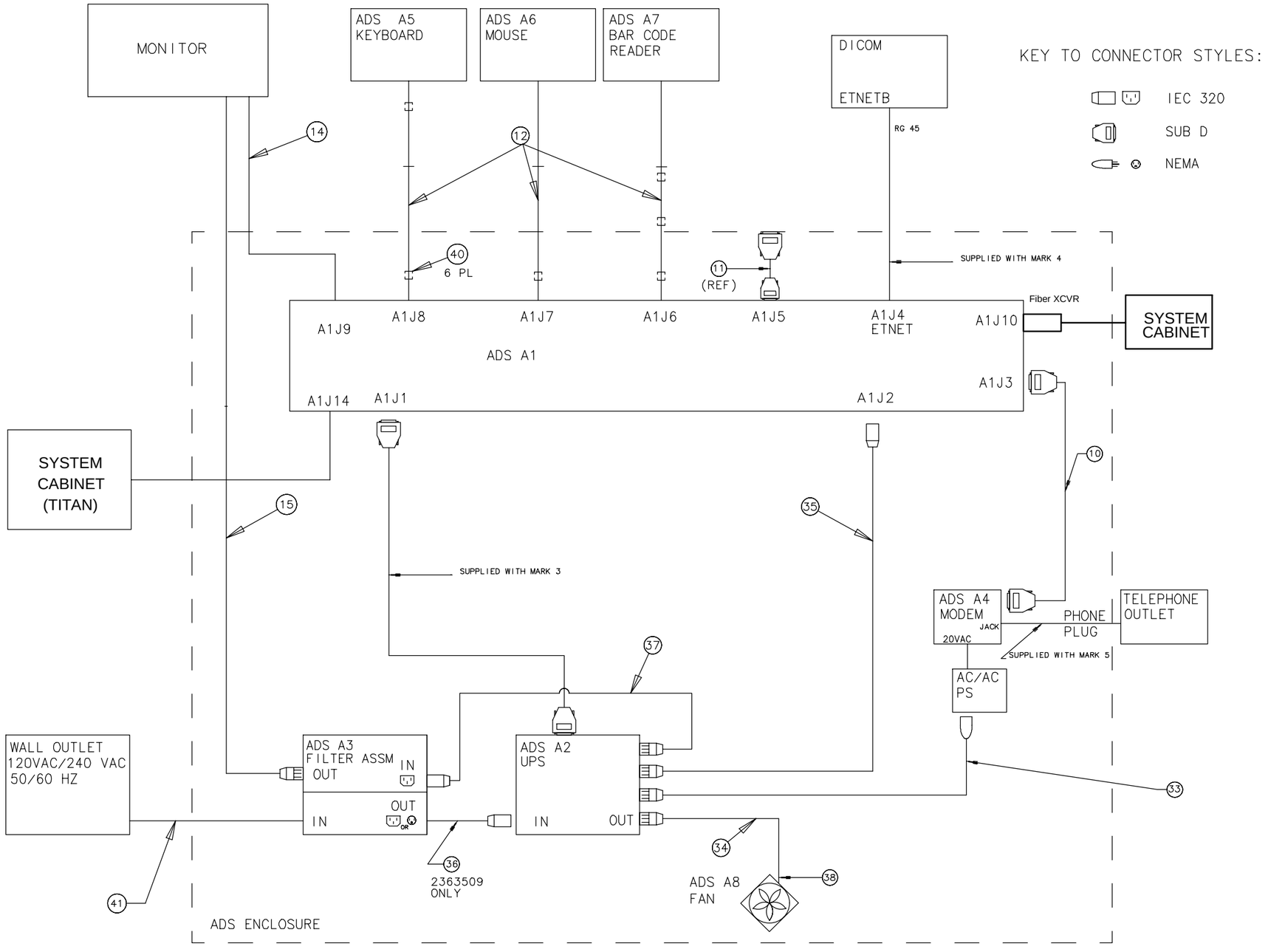


SUNBLADE 150 (new)

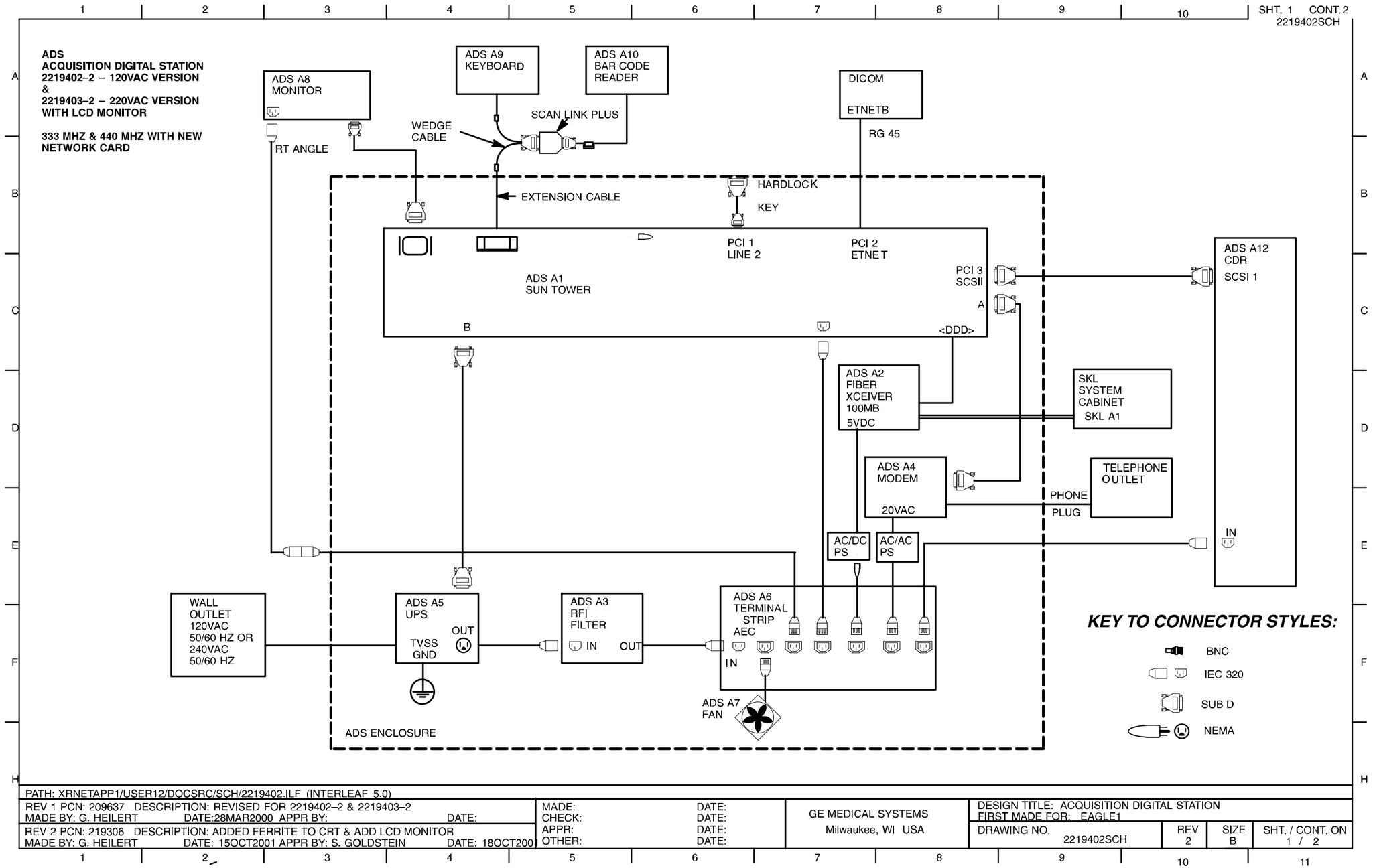
ADS ASSEMBLY (SUNBLADE 150, DIE PC−READY)



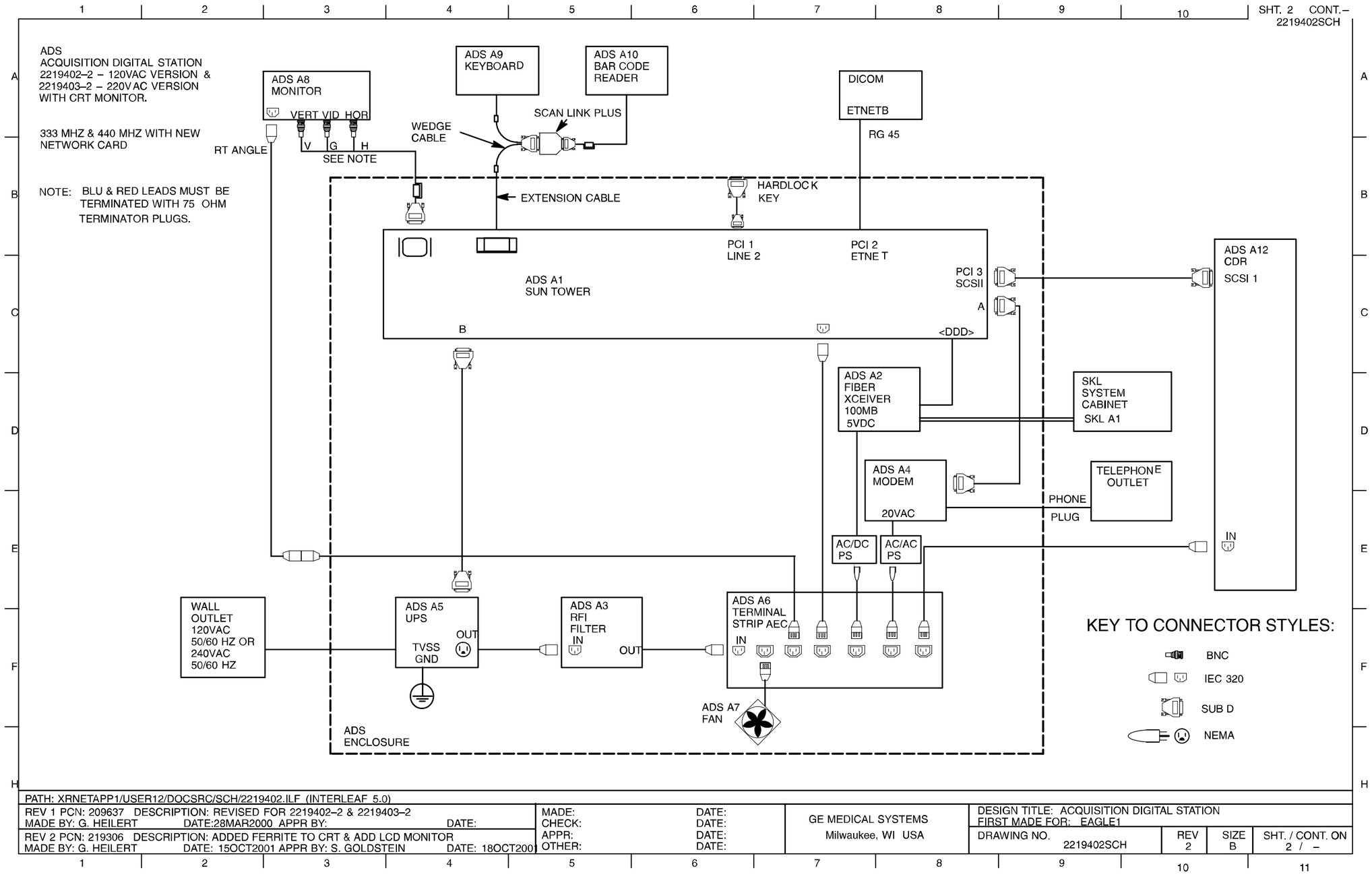
ADS ASSEMBLY (SUNBLADE 150)



ADS ASSEMBLY (SUN U10 WITH LCD MONITOR)



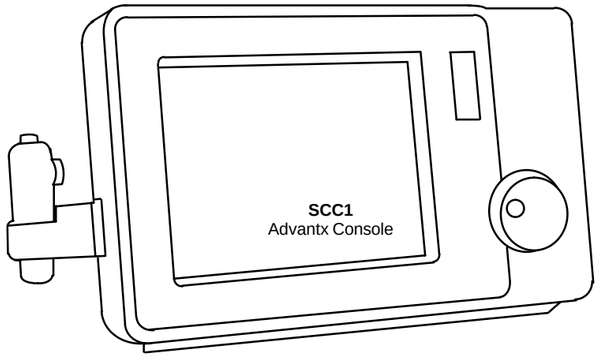
ADS ASSEMBLY (SUN U10 WITH CRT MONITOR)



PATH: XRNETAPP1/USER12/DOCSRC/SCH/2219402.ILF (INTERLEAF 5.0)					
REV 1 PCN: 209637 DESCRIPTION: REVISED FOR 2219402–2 & 2219403–2 MADE BY: G. HEILERT DATE:28MAR2000 APPR BY: DATE:	MADE: DATE: CHECK: DATE: APPR: DATE: OTHER: DATE:	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE: ACQUISITION DIGITAL STATION FIRST MADE FOR: EAGLE1		
REV 2 PCN: 219306 DESCRIPTION: ADDED FERRITE TO CRT & ADD LCD MONITOR MADE BY: G. HEILERT DATE: 15OCT2001 APPR BY: S. GOLDSTEIN DATE: 18OCT2001			DRAWING NO. 2219402SCH	REV 2	SIZE B / SHT. / CONT. ON 2 / –

SECTION 2
ADVANTX CONSOLE

2-1 SCC1, 2224559 (CONSOLE)



SHT. 1 CONT. 2
2224559SCH

SYSTEM CONNECTOR
SCC1−J1
120_VAC
120_RTN
CHASSIS_GND
CHASSIS_GND (CONNECTOR MOUNTING SCREW)

26 BLK
25 WHT
42 GRN/YEL
SHELL GRN/YEL

CIRCUIT BREAKER
SCC1−CB1
1 120_VAC
2 120VAC_BREAKER

EMI LINE FILTER
SCC1_FL1
1 120VAC_BREAKER
2 120_RTN
3 CHASSIS_GND
4 120VAC_FILTER
5 120RTN_FILTER

2 BLK
4 BLK
5 WHT
GRN/YEL
GRN/YEL

SCC1−STUD1

TB1−1
TB1−3
TB1−5

POWER SUPPLY
SCC1−A1
120VAC_FILTER(TB1−3)
120RTN_FILTER (TB1−2)
CHASSIS_GND(TB1−1)
12VP
12VN
LGND
LGND
VCC
VCC
12VP

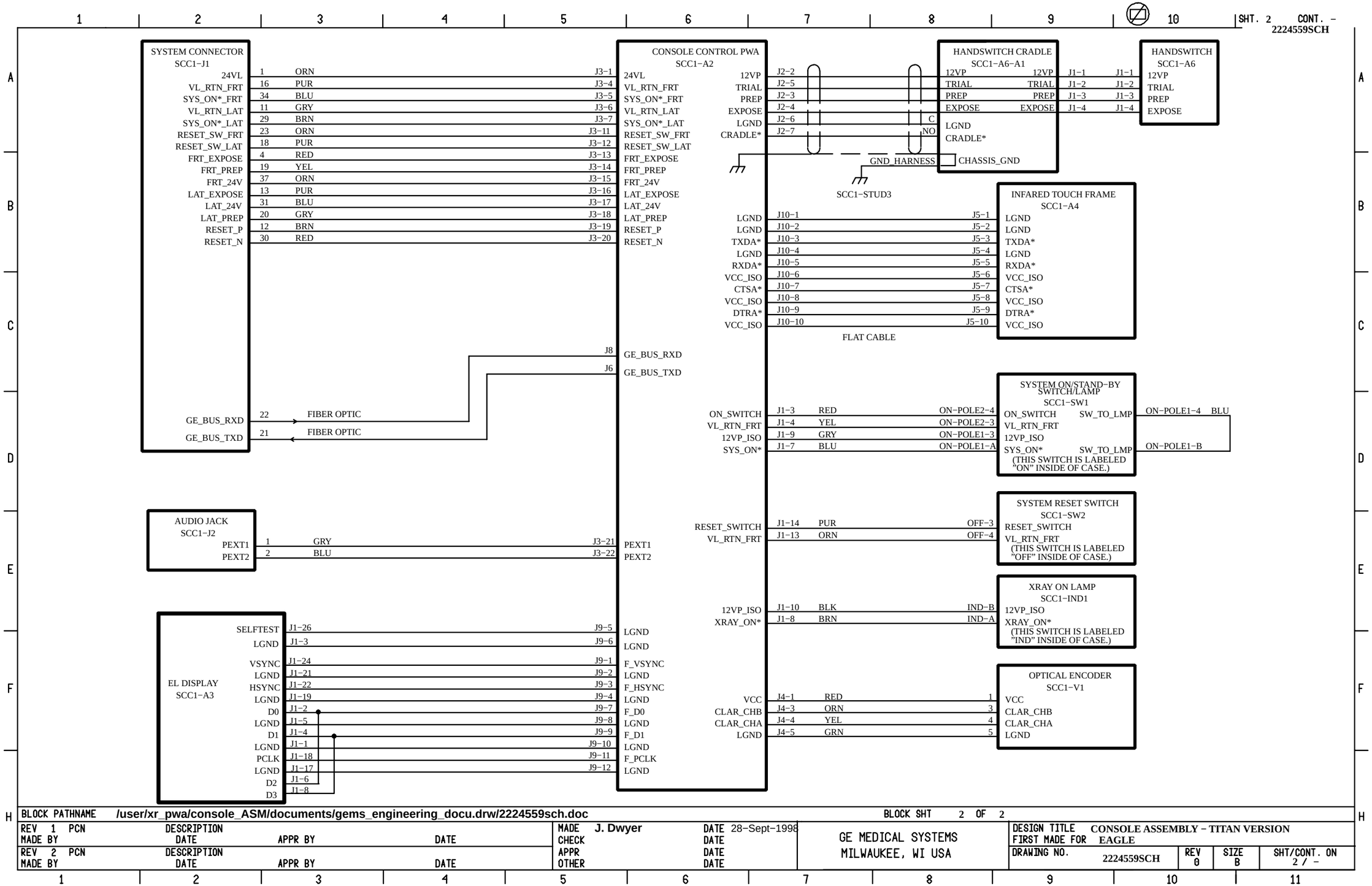
TB2−2 YEL
TB2−4 BRN
TB2−7 GRN
TB2−8 GRN
TB2−9 RED
TB2−10 RED
TB2−6
GND HARNESS

CONSOLE CONTROL PWA
SCC1−A2
J5−1 12VP
J5−2 12VN
J5−4 LGND
J5−6 LGND
J5−7 VCC
J5−8 VCC
CHASSIS_GND (PWA MOUNTING SCREW)

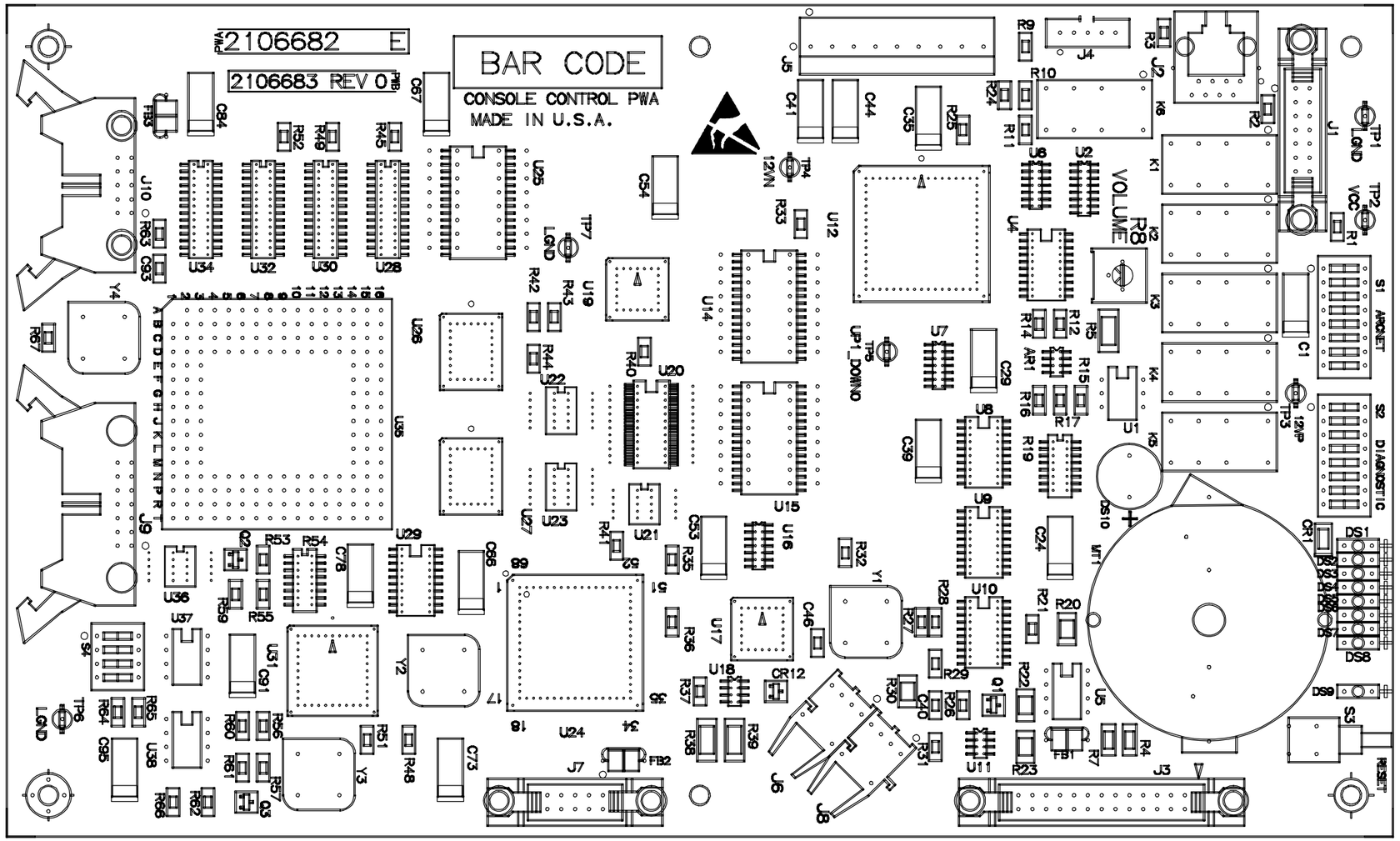
EL DISPLAY
SCC1−A3
GRN J2−3 LGND_DISPLAY
GRN J2−2 LGND_DISPLAY
PUR J2−1 VCC_DISPLAY
GND HARNESS
CHASSIS_GND (ESD SHIELD)

SCC1−STUD2

BLOCK PATHNAME /user/xr_pwa/console_ASM/documents/gems_engineering_docu.drw/2224559sch.doc									BLOCK SHT 1 OF 2		
REV 1 PCN MADE BY	DESCRIPTION	DATE	APPR BY	DATE	MADE J. Dwyer	DATE 28−Sept−1998	GE MEDICAL SYSTEMS MILWAUKEE, WI USA		DESIGN TITLE CONSOLE ASSEMBLY − TITAN VERSION FIRST MADE FOR EAGLE		
REV 2 PCN MADE BY	DESCRIPTION	DATE	APPR BY	DATE	CHECK	DATE			DRAWING NO. 2224559SCH	REV 0	SIZE B	SHT/CONT. ON 1 / 2
					APPR	DATE					
					OTHER	DATE					


SHT. 2 CONT. − 2224559SCH
SYSTEM CONNECTOR
SCC1−J1
24VL 1 ORN J3−1
VL_RTN_FRT 16 PUR J3−4
SYS_ON*_FRT 34 BLU J3−5
VL_RTN_LAT 11 GRY J3−6
SYS_ON*_LAT 29 BRN J3−7
RESET_SW_FRT 23 ORN J3−11
RESET_SW_LAT 18 PUR J3−12
FRT_EXPOSE 4 RED J3−13
FRT_PREP 19 YEL J3−14
FRT_24V 37 ORN J3−15
LAT_EXPOSE 13 PUR J3−16
LAT_24V 31 BLU J3−17
LAT_PREP 20 GRY J3−18
RESET_P 12 BRN J3−19
RESET_N 30 RED J3−20
GE_BUS_RXD 22 FIBER OPTIC
GE_BUS_TXD 21 FIBER OPTIC
CONSOLE CONTROL PWA
SCC1−A2
J8 GE_BUS_RXD
J6 GE_BUS_TXD
HANDSWITCH CRADLE
SCC1−A6−A1
12VP J2−2 12VP J1−1 J1−1
TRIAL J2−5 TRIAL J1−2 J1−2
PREP J2−3 PREP J1−3 J1−3
EXPOSE J2−4 EXPOSE J1−4 J1−4
LGND J2−6 C
CRADLE* J2−7 NO
GND_HARNESS
CHASSIS_GND
HANDSWITCH
SCC1−A6
12VP
TRIAL
PREP
EXPOSE
SCC1−STUD3
INFARED TOUCH FRAME
SCC1−A4
LGND J10−1 J5−1 LGND
LGND J10−2 J5−2 LGND
TXDA* J10−3 J5−3 TXDA*
LGND J10−4 J5−4 LGND
RXDA* J10−5 J5−5 RXDA*
VCC_ISO J10−6 J5−6 VCC_ISO
CTSA* J10−7 J5−7 CTSA*
VCC_ISO J10−8 J5−8 VCC_ISO
DTRA* J10−9 J5−9 DTRA*
VCC_ISO J10−10 J5−10 VCC_ISO
FLAT CABLE
SYSTEM ON/STAND−BY SWITCH/LAMP
SCC1−SW1
ON_SWITCH J1−3 RED ON−POLE2−4
VL_RTN_FRT J1−4 YEL ON−POLE2−3
12VP_ISO J1−9 GRY ON−POLE1−3
SYS_ON* J1−7 BLU ON−POLE1−A
ON_SWITCH SW_TO_LMP ON−POLE1−4 BLU
VL_RTN_FRT
12VP_ISO
SYS_ON* SW_TO_LMP ON−POLE1−B
(THIS SWITCH IS LABELED "ON" INSIDE OF CASE.)
SYSTEM RESET SWITCH
SCC1−SW2
RESET_SWITCH J1−14 PUR OFF−3
VL_RTN_FRT J1−13 ORN OFF−4
RESET_SWITCH
VL_RTN_FRT
(THIS SWITCH IS LABELED "OFF" INSIDE OF CASE.)
XRAY ON LAMP
SCC1−IND1
12VP_ISO J1−10 BLK IND−B
XRAY_ON* J1−8 BRN IND−A
12VP_ISO
XRAY_ON*
(THIS SWITCH IS LABELED "IND" INSIDE OF CASE.)
OPTICAL ENCODER
SCC1−V1
VCC J4−1 RED 1
CLAR_CHB J4−3 ORN 3
CLAR_CHA J4−4 YEL 4
LGND J4−5 GRN 5
VCC
CLAR_CHB
CLAR_CHA
LGND
AUDIO JACK
SCC1−J2
PEXT1 1 GRY J3−21 PEXT1
PEXT2 2 BLU J3−22 PEXT2
EL DISPLAY
SCC1−A3
SELFTEST J1−26 J9−5 LGND
LGND J1−3 J9−6 LGND
VSYNC J1−24 J9−1 F_VSYNC
LGND J1−21 J9−2 LGND
HSYNC J1−22 J9−3 F_HSYNC
LGND J1−19 J9−4 LGND
D0 J1−2 J9−7 F_D0
LGND J1−5 J9−8 LGND
D1 J1−4 J9−9 F_D1
LGND J1−1 J9−10 LGND
PCLK J1−18 J9−11 F_PCLK
LGND J1−17 J9−12 LGND
D2 J1−6
D3 J1−8
BLOCK PATHNAME /user/xr_pwa/console_ASM/documents/gems_engineering_docu.drw/2224559sch.doc
BLOCK SHT 2 OF 2
REV 1 PCN MADE BY DESCRIPTION DATE APPR BY DATE
REV 2 PCN MADE BY DESCRIPTION DATE APPR BY DATE
MADE J. Dwyer DATE 28−Sept−1998
CHECK DATE
APPR DATE
OTHER DATE
GE MEDICAL SYSTEMS
MILWAUKEE, WI USA
DESIGN TITLE CONSOLE ASSEMBLY − TITAN VERSION
FIRST MADE FOR EAGLE
DRAWING NO. 2224559SCH
REV 0
SIZE B
SHT/CONT. ON 2 / −

2-2 SCC1, 2106682−2 (CONTROL BOARD)



1 2 3 4 5 6 7 8 9 10 SHT. 1 CONT. 2
2106682SCH

SHEET_NAME	SHT NUM	REV
COVER_SHEET	1	2
BLOCK_DIAGRAM	2	0
CPU_CONTROL	3	0
CPU_80C186	4	0
MEMORY_IF	5	0
IO_IF	6	0
ARCNET_RS232_IF	7	0
SWITCH_RELAY_IF	8	0
ENCODER_PIEZO_IF	9	0
PLASMA_DISPLAY_IF	10	0
DISPLAY_CONTROL	11	2
VIDEO_MEMORY	12	0
DISPLAY_DRIVE	13	0
POWER_DECOUPLING	14	0

NOTE: ANY CHANGE TO THIS PWB EFFECTING ITS 21XXXXX#, G# or REV# MUST BE ACCOMPANIED BY A CORRESPONDING CHANGE IN THE BOARD_ID PROGRAMMING CONTAINED WITH U38. SEE SHEET 7.

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	14-MAR-94	SAB
0	------	1-SEP-94	SAB
1	196437	16APR96	JWW
2	196966	11NOV96	

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2106682 E.
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.1W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/cover_sheet

BLOCK SHT 1 OF 1

REV 1 PCN 196437 DESCRIPTION
MADE BY Glenn Teske DATE 16APR96 APPR BY JWW DATE 22APR96

REV 2 PCN 196966 DESCRIPTION
MADE BY Glenn Teske DATE 11NOV96 APPR BY DATE

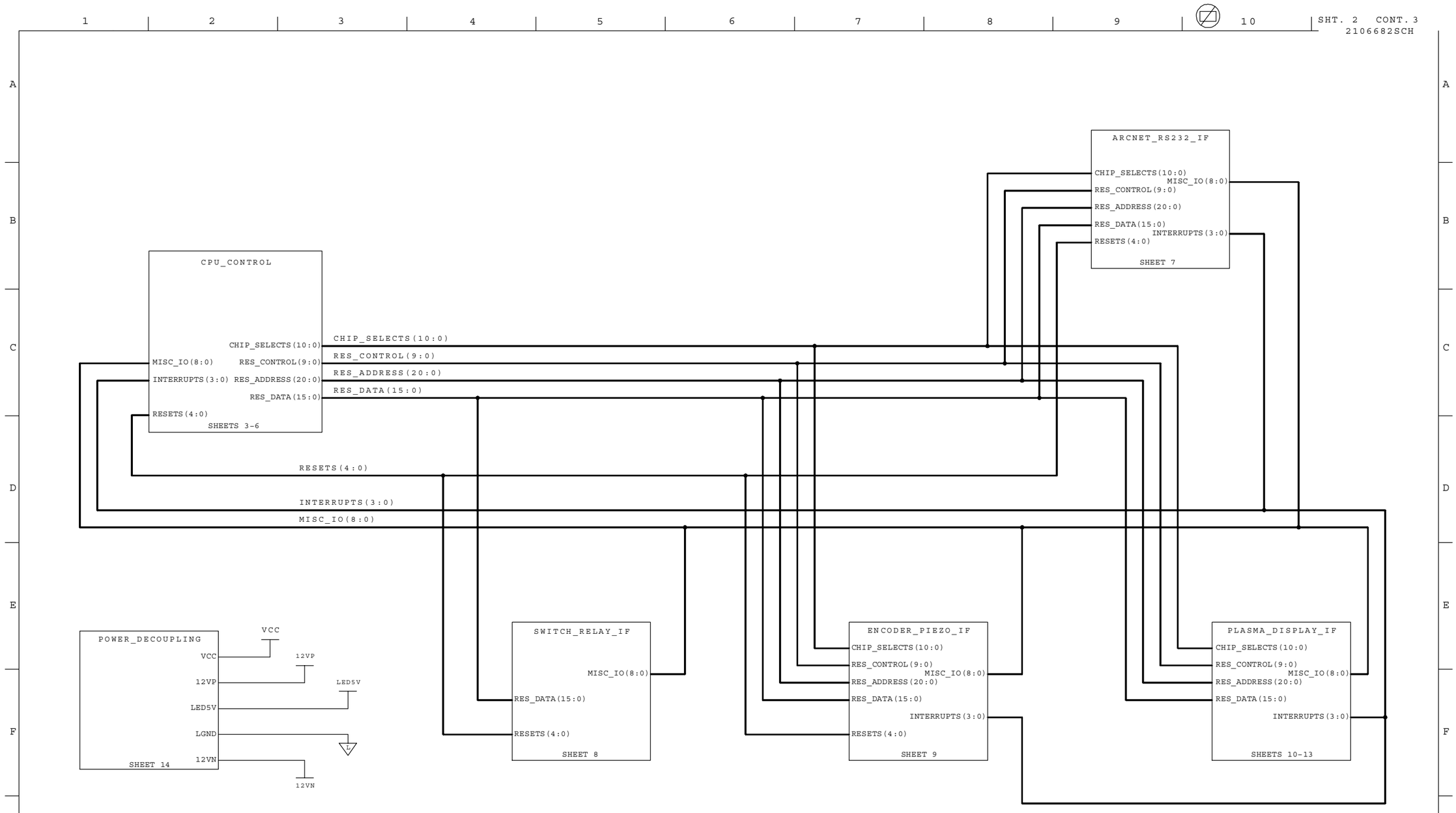
MADE Scott Bielski DATE 1-SEP-94
CHECK DATE
APPR Scott Bielski DATE 14SEP94
OTHER Potter-Hummer DATE 14SEP94

GE MEDICAL SYSTEMS
Milwaukee, WI USA

DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA
FIRST MADE FOR ADVANTX-II_CONSOLE_ASM

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	2	B	1/2

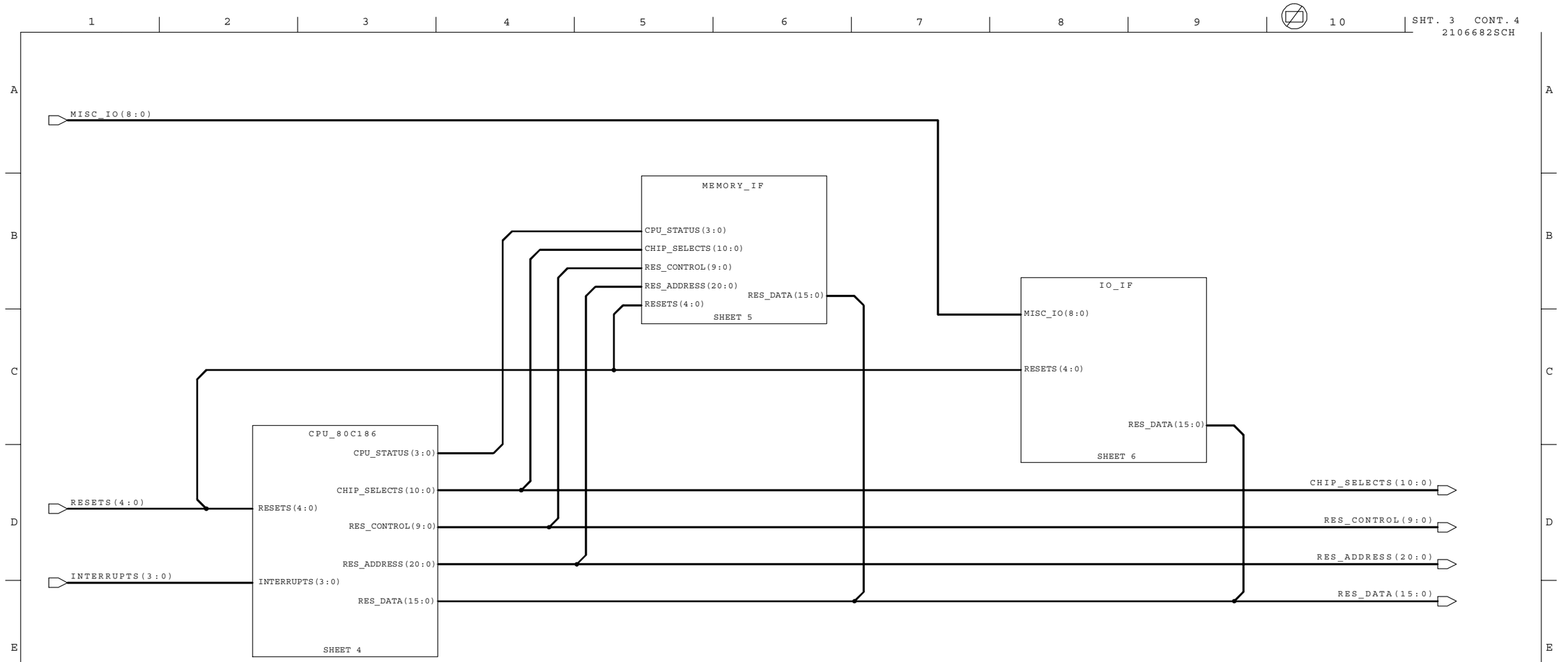
1 2 3 4 5 6 7 8 9 10 11



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE	MADE Scott Bielski DATE 1-SEP-94 CHECK Jim Woods DATE 1-SEP-94 APPR Scott Bielski DATE 1-SEP-94 OTHER Potter-Hummer DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA
REV 2 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE		

DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA
FIRST MADE FOR ADVANTX-II_CONSOLE_ASM

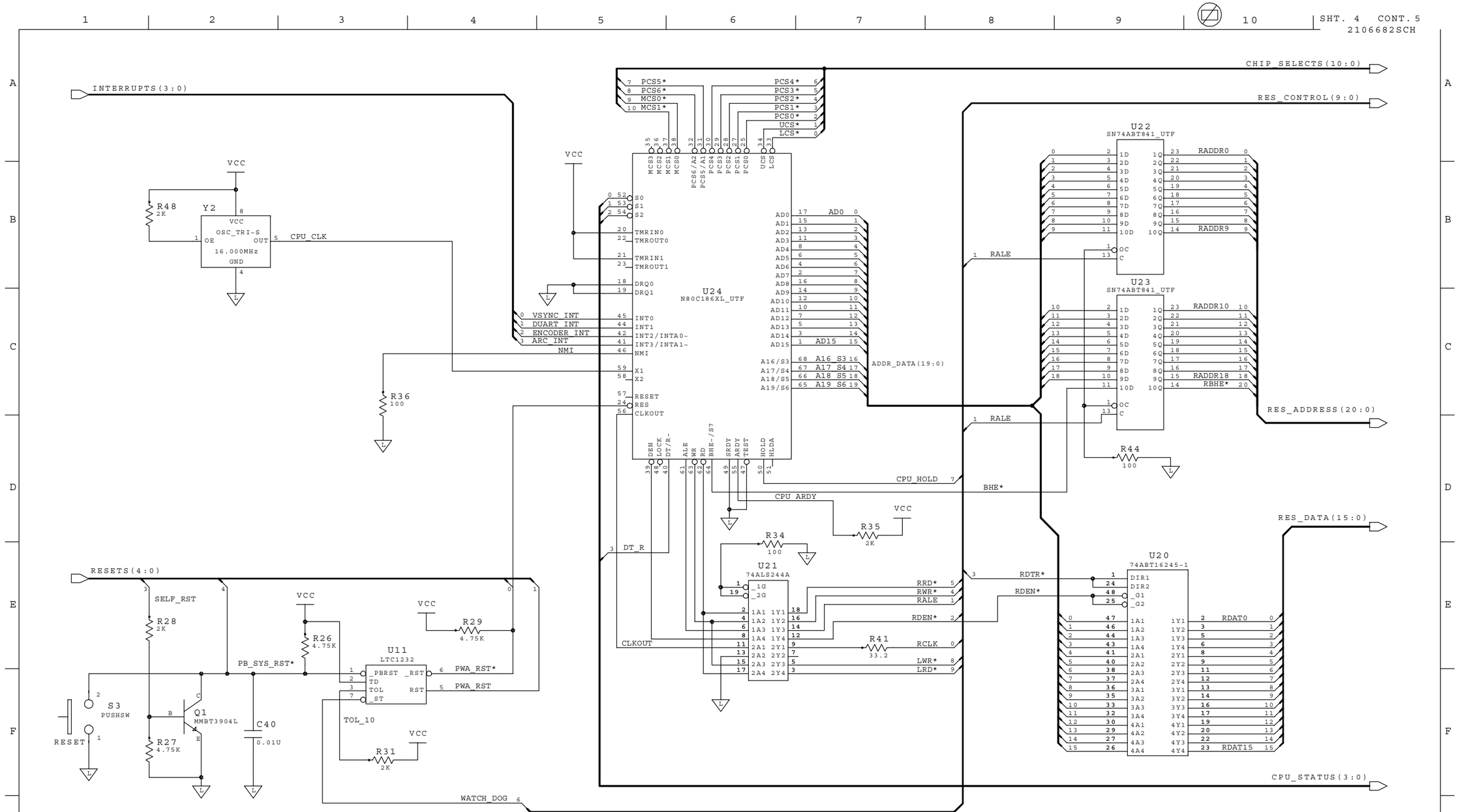
DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	0	B	2/3



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/cpu_control

BLOCK SHT 1 OF 1

REV 1 PCN	DESCRIPTION			MADE Scott Bielski	DATE 1-SEP-94	GE MEDICAL SYSTEMS	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA				
MADE BY	DATE	APPR BY	DATE	CHECK Jim Woods	DATE 1-SEP-94		FIRST MADE FOR ADVANTX-II_CONSOLE_ASM				
REV 2 PCN	DESCRIPTION			APPR Scott Bielski	DATE 1-SEP-94	Milwaukee, WI USA	DRAWING NO.	REV	SIZE	SHT./CONT. ON	
MADE BY	DATE	APPR BY	DATE	OTHER Potter-Hummer	DATE 1-SEP-94		2106682SCH	0	B	3/4	



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/cpu_control/cpu_80c186			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE	MADE Scott Bielski DATE 1-SEP-94 CHECK Jim Woods DATE 1-SEP-94 APPR Scott Bielski DATE 1-SEP-94 OTHER Potter-Hummer DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM
REV 2 PCN / MADE BY / DESCRIPTION / DATE / APPR BY / DATE			DRAWING NO. 2106682SCH / REV 0 / SIZE B / SHT./CONT. ON 4/5

SHT. 5 CONT. 6
2106682SCH

RES_DATA(15:0)
RES_ADDRESS(20:0)

U26
27/28/29X010-120
2116931

U27
27/28/29X010-120
2116931

U14
HM628128LP-8

U15
HM628128LP-8

U19
PAL22V10-15_UTF
2106792

R42 2K
R43 100
R40 2K
R33 2K

VCC

UCS*
LRD*
LCS*
RRD*
EEWRLO*
EEWRHI*

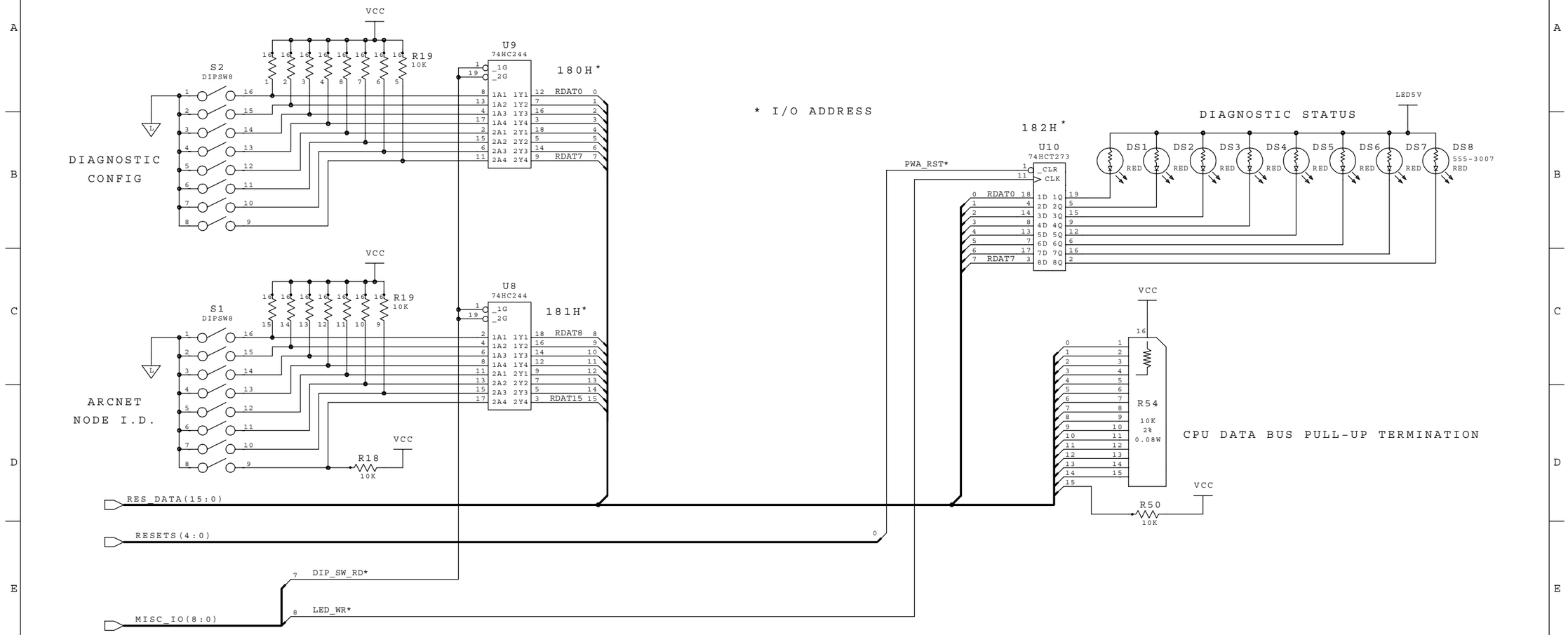
1

Positions U26 and U27 accommodate either 27C010 EPROMS, or 28F010/29F010 type FLASH EEPROMS. See BOM for exact component installed onto PWA.

CPU_STATUS(3:0)
RESETS(4:0)
RES_CONTROL(9:0)
CHIP_SELECTS(10:0)

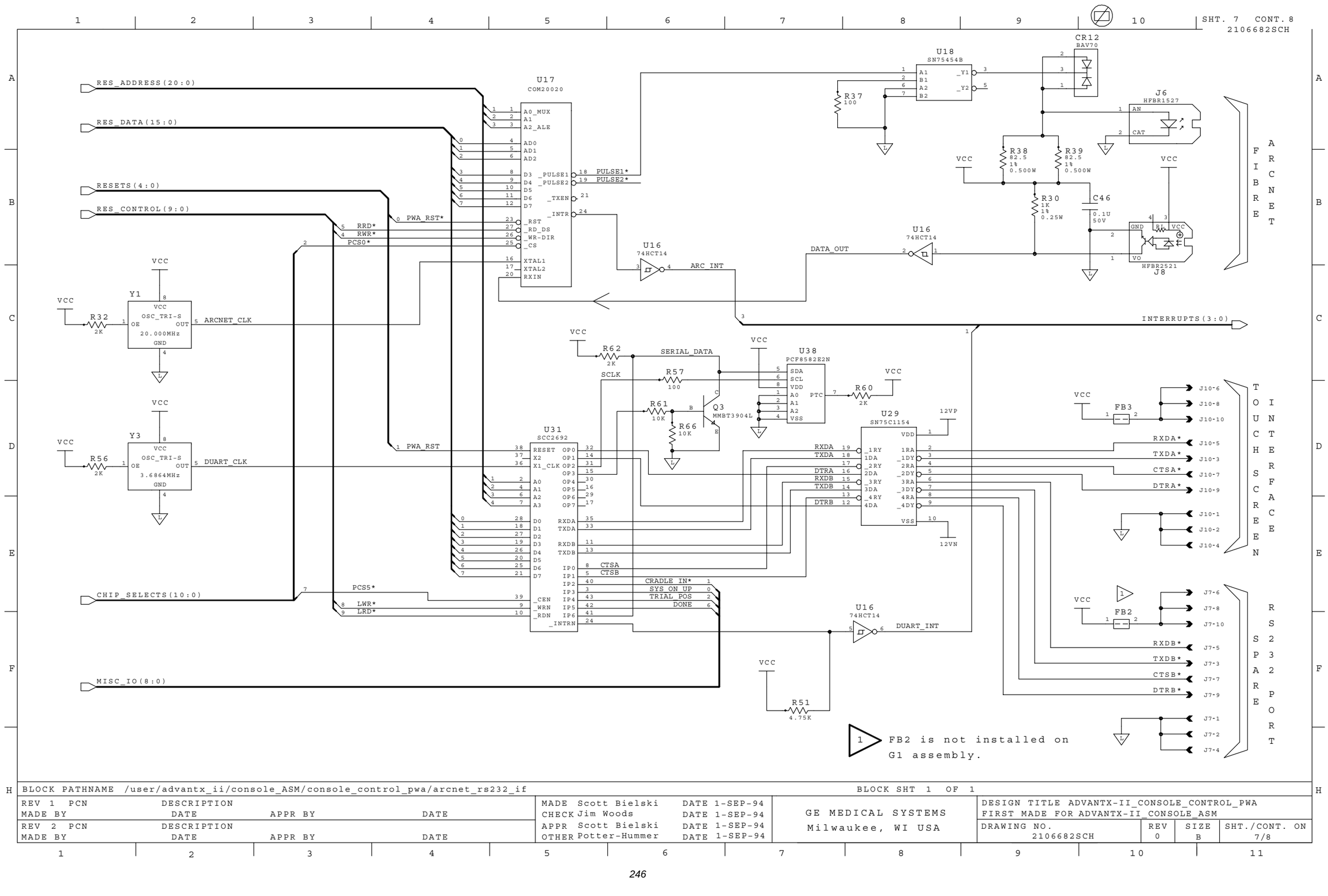
HALT
DS9
LED5V
555-3007
RED

BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/cpu_control/memory_if			BLOCK SHT 1 OF 1
REV 1 PCN / MADE BY	DESCRIPTION / DATE	APPR BY	DATE
REV 2 PCN / MADE BY	DESCRIPTION / DATE	APPR BY	DATE
MADE Scott Bielski	DATE 1-SEP-94		
CHECK Jim Woods	DATE 1-SEP-94		
APPR Scott Bielski	DATE 1-SEP-94		
OTHER Potter-Hummer	DATE 1-SEP-94		
GE MEDICAL SYSTEMS Milwaukee, WI USA			
DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM			
DRAWING NO. 2106682SCH	REV 0	SIZE B	SHT./CONT. ON 5/6

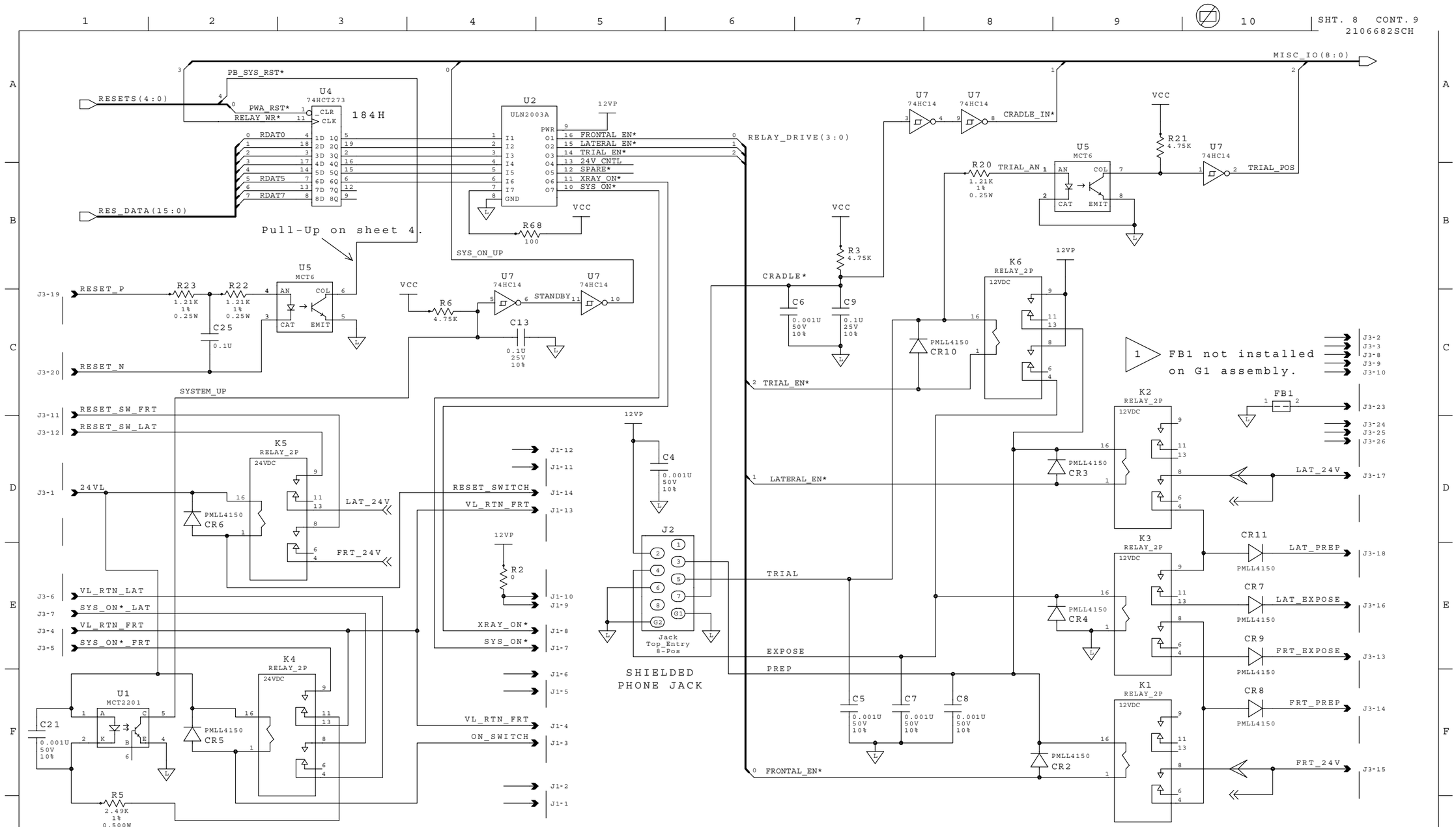


BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/cpu_control/io_if			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY	DESCRIPTION DATE APPR BY DATE	MADE Scott Bielski DATE 1-SEP-94 CHECK Jim Woods DATE 1-SEP-94 APPR Scott Bielski DATE 1-SEP-94 OTHER Potter-Hummer DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA
REV 2 PCN MADE BY	DESCRIPTION DATE APPR BY DATE		

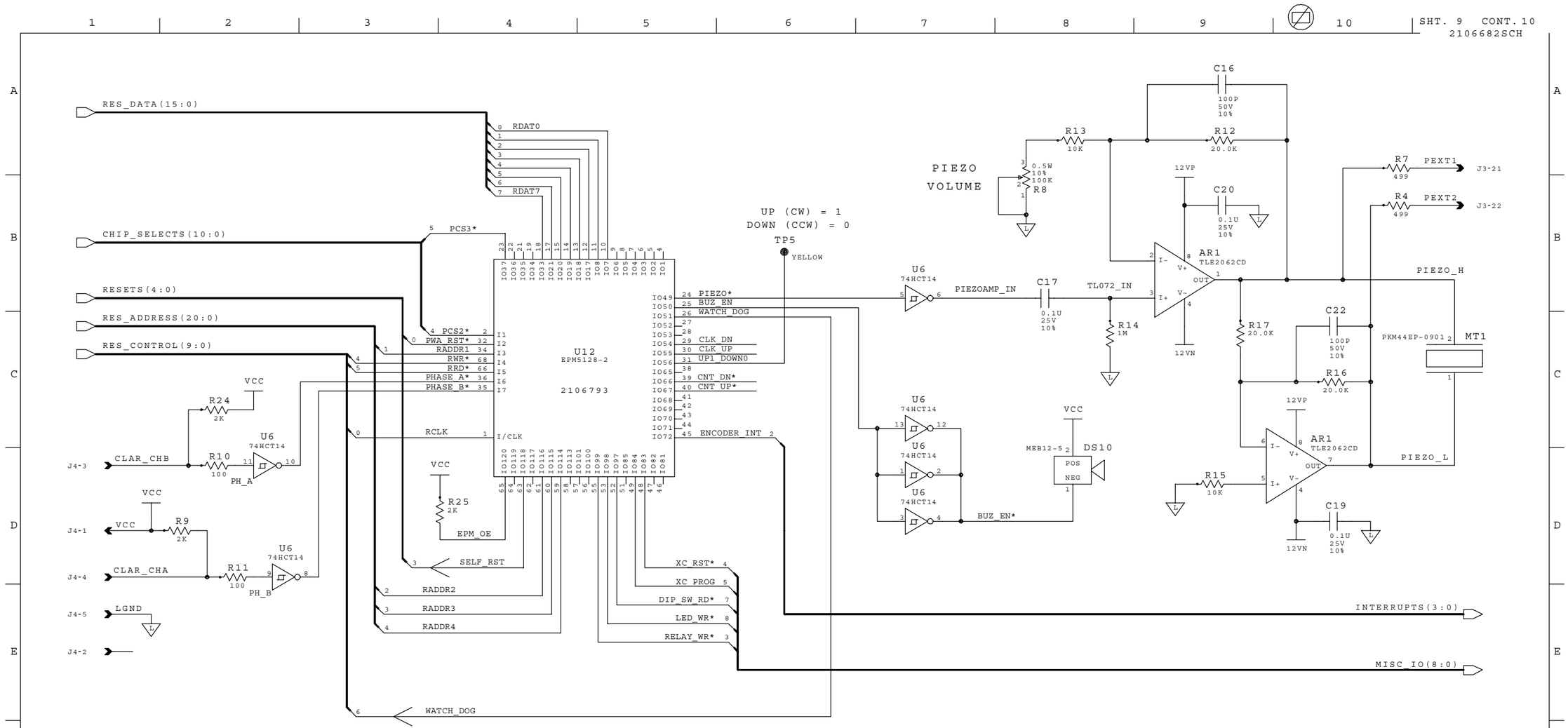
DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM			
DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	0	B	6/7



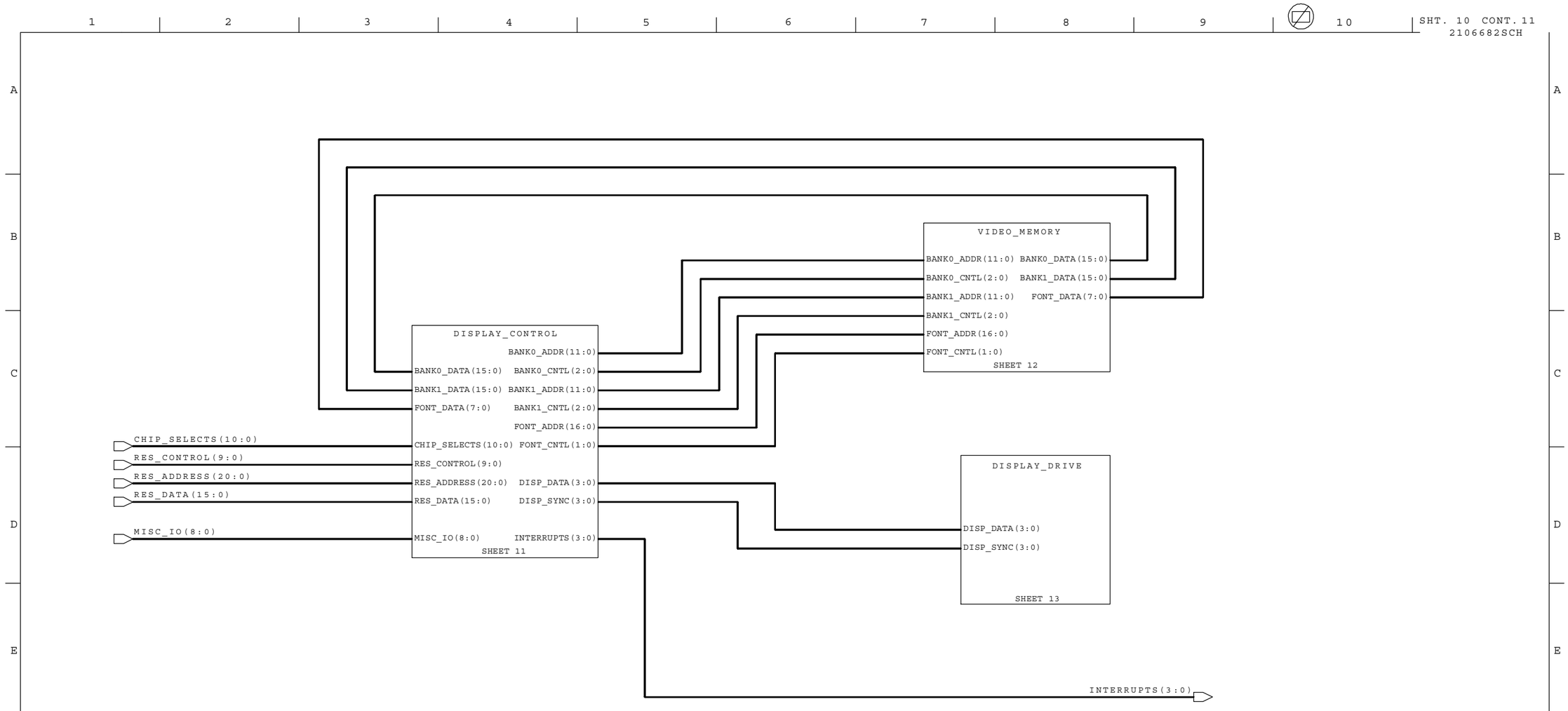
BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/arcnet_rs232_if								BLOCK SHT 1 OF 1		
REV 1 PCN	DESCRIPTION			MADE Scott Bielski	DATE 1-SEP-94	GE MEDICAL SYSTEMS		DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA		
MADE BY	DATE	APPR BY	DATE	CHECK Jim Woods	DATE 1-SEP-94			FIRST MADE FOR ADVANTX-II_CONSOLE_ASM		
REV 2 PCN	DESCRIPTION			APPR Scott Bielski	DATE 1-SEP-94	Milwaukee, WI USA		DRAWING NO.	REV	SIZE
MADE BY	DATE	APPR BY	DATE	OTHER Potter-Hummer	DATE 1-SEP-94			2106682SCH	0	B
										SHT./CONT. ON 7/8



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/switch_relay_if				BLOCK SHT 1 OF 1			
REV 1 PCN	DESCRIPTION			MADE Scott Bielski	DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM
MADE BY	DATE	APPR BY	DATE	CHECK Jim Woods	DATE 1-SEP-94		
REV 2 PCN	DESCRIPTION			APPR Scott Bielski	DATE 1-SEP-94		DRAWING NO. 2106682SCH / REV 0 / SIZE B / SHT./CONT. ON 8/9
MADE BY	DATE	APPR BY	DATE	OTHER Potter-Hummer	DATE 1-SEP-94		



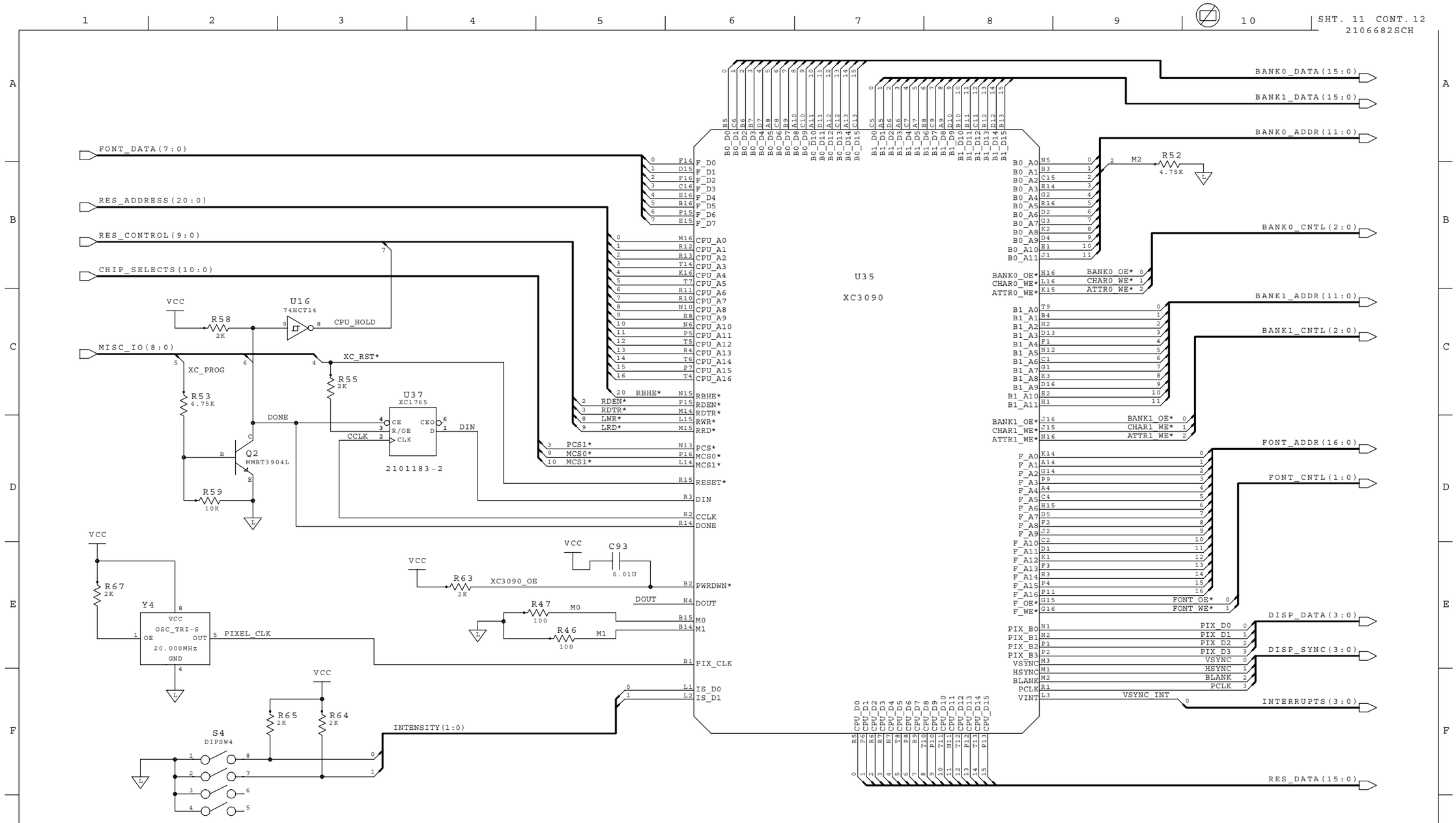
BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/encoder_piezo_if			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE
REV 2 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE
MADE Scott Bielski CHECK Jim Woods APPR Scott Bielski OTHER Potter-Hummer	DATE 1-SEP-94 DATE 1-SEP-94 DATE 1-SEP-94 DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM DRAWING NO. 2106682SCH / REV 0 / SIZE B / SHT./CONT. ON 9/10



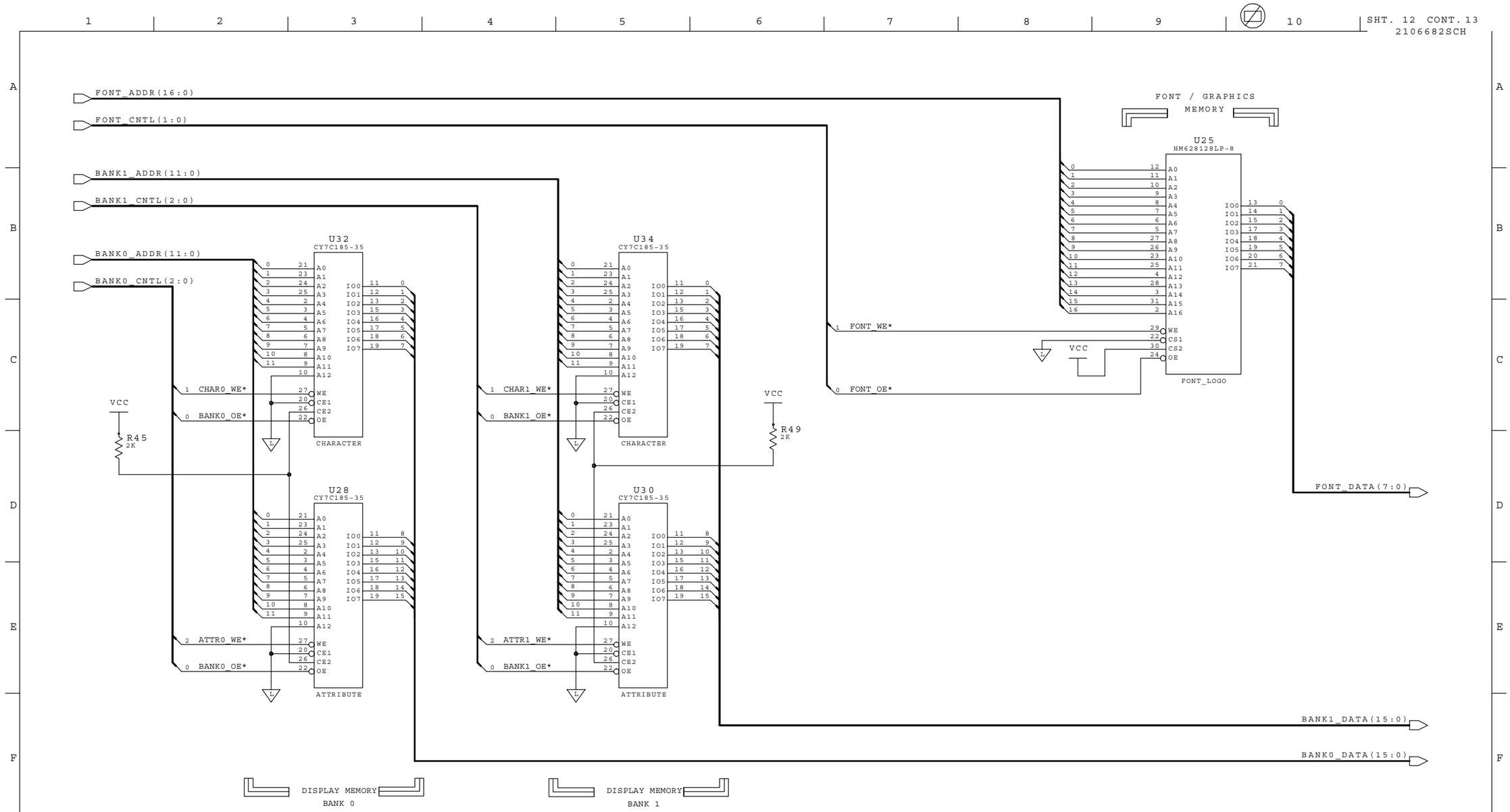
BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/plasma_display_if			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE	MADE Scott Bielski DATE 1-SEP-94 CHECK Jim Woods DATE 1-SEP-94 APPR Scott Bielski DATE 1-SEP-94 OTHER Potter-Hummer DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA
REV 2 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE		

DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA
FIRST MADE FOR ADVANTX-II_CONSOLE_ASM

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	0	B	10/11



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/plasma_display_if/display_control				BLOCK SHT 1 OF 1	
REV 1 PCN MADE BY	DESCRIPTION DATE	APPR BY	DATE	MADE Scott Bielski CHECK Jim Woods APPR Scott Bielski OTHER Potter-Hummer	DATE 1-SEP-94 DATE 1-SEP-94 DATE 1-SEP-94 DATE 1-SEP-94
REV 2 PCN 196966 MADE BY Glenn Teske	DESCRIPTION DATE 11NOV96	APPR BY	DATE	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM DRAWING NO. 2106682SCH / REV 2 / SIZE B / SHT./CONT. ON 11/12



1	2	3	4	5	6	7	8	9	10	11	

BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/plasma_display_if/video_memory — BLOCK SHT 1 OF 1

REV	PCN	DESCRIPTION	MADE BY	DATE	APPR BY	DATE
1						
2						

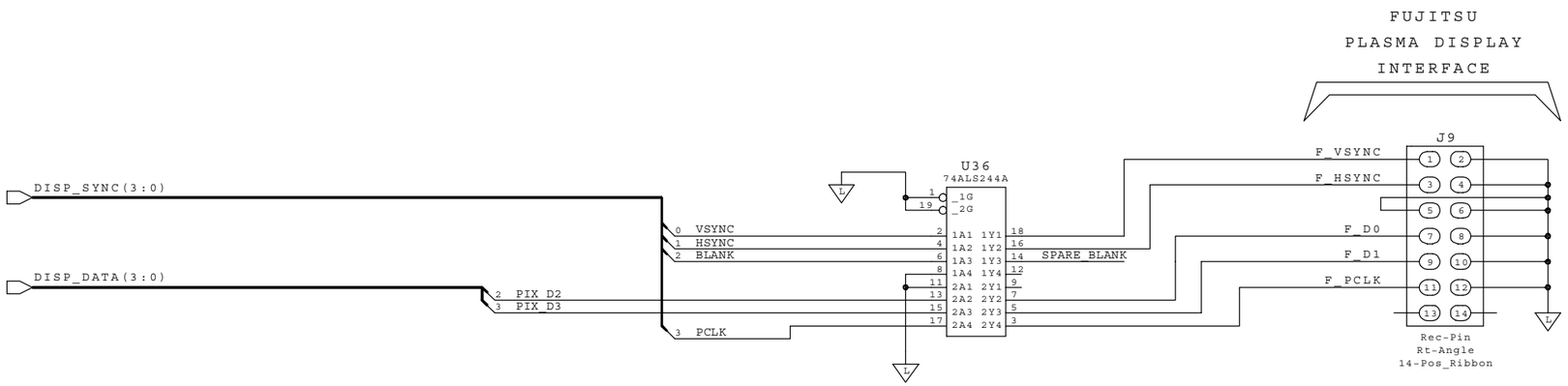
MADE	Scott Bielski	DATE	1-SEP-94
CHECK	Jim Woods	DATE	1-SEP-94
APPR	Scott Bielski	DATE	1-SEP-94
OTHER	Potter-Hummer	DATE	1-SEP-94

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Milwaukee, WI USA

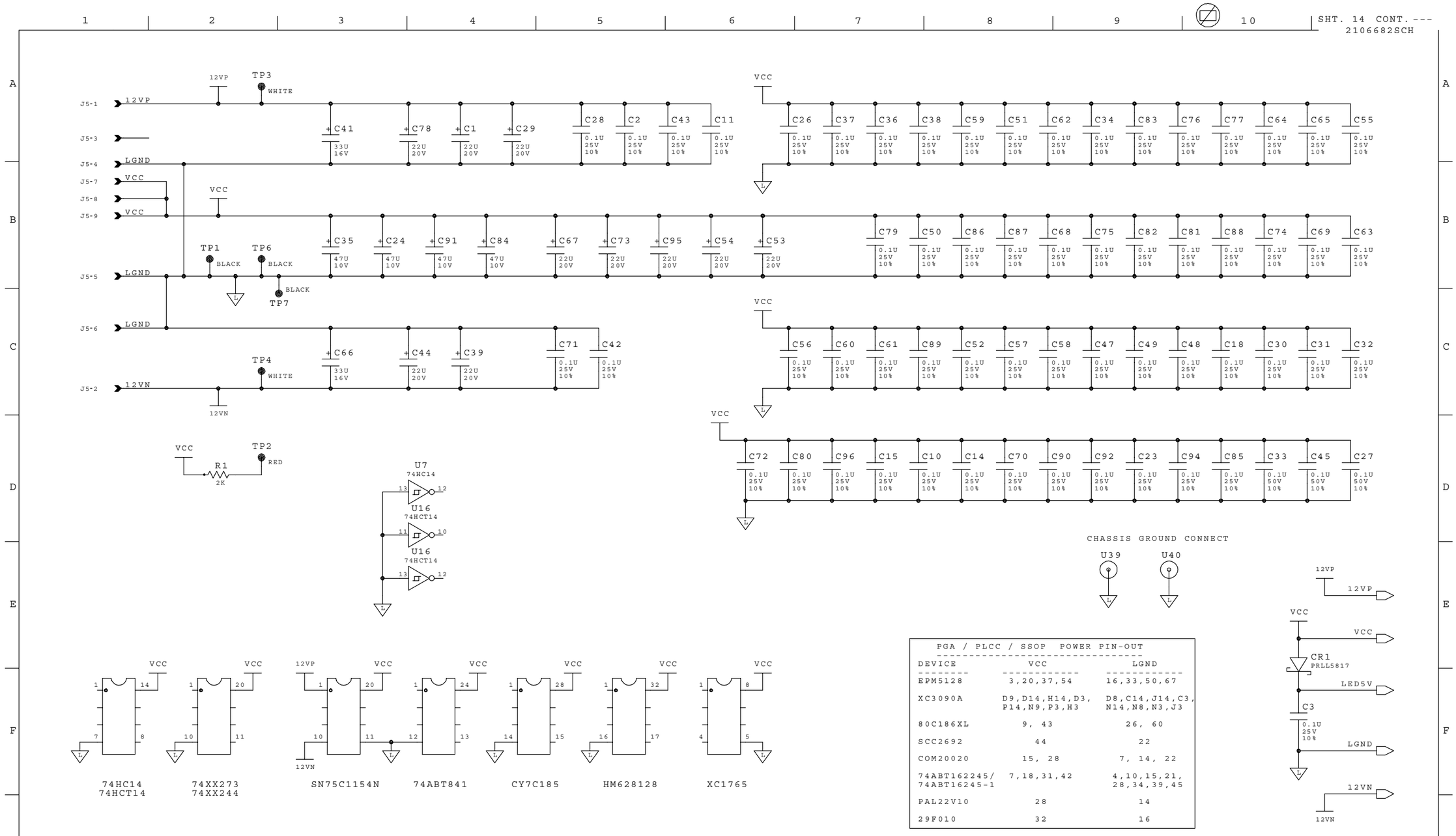
DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA
FIRST MADE FOR ADVANTX-II_CONSOLE_ASM

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	0	B	12/13

SHT. 13 CONT. 14
2106682SCH



BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/plasma_display_if/display_drive			BLOCK SHT 1 OF 1
REV 1 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE	MADE Scott Bielski DATE 1-SEP-94 CHECK Jim Woods DATE 1-SEP-94	GE MEDICAL SYSTEMS Milwaukee, WI USA	DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA FIRST MADE FOR ADVANTX-II_CONSOLE_ASM
REV 2 PCN MADE BY	DESCRIPTION DATE / APPR BY / DATE	APPR Scott Bielski DATE 1-SEP-94 OTHER Potter-Hummer DATE 1-SEP-94		DRAWING NO. 2106682SCH / REV 0 / SIZE B / SHT./CONT. ON 13/14



PGA / PLCC / SSOP POWER PIN-OUT

DEVICE	VCC	LGND
EPM5128	3,20,37,54	16,33,50,67
XC3090A	D9,D14,H14,D3, P14,N9,P3,H3	D8,C14,J14,C3, N14,N8,N3,J3
80C186XL	9, 43	26, 60
SCC2692	44	22
COM20020	15, 28	7, 14, 22
74ABT162245/ 74ABT16245-1	7,18,31,42	4,10,15,21, 28,34,39,45
PAL22V10	28	14
29F010	32	16

BLOCK PATHNAME /user/advantx_ii/console_ASM/console_control_pwa/power_decoupling

BLOCK SHT 1 OF 1

REV	DESCRIPTION	MADE BY	DATE	APPR BY	DATE
1 PCN					
2 PCN					

MADE	Scott Bielski	DATE 1-SEP-94
CHECK	Jim Woods	DATE 1-SEP-94
APPR	Scott Bielski	DATE 1-SEP-94
OTHER	Potter-Hummer	DATE 1-SEP-94

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Milwaukee, WI USA

DESIGN TITLE ADVANTX-II_CONSOLE_CONTROL_PWA
FIRST MADE FOR ADVANTX-II_CONSOLE_ASM

DRAWING NO.	REV	SIZE	SHT./CONT. ON
2106682SCH	0	B	14/---

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GE Medical Systems

GE Medical Systems: Telex 3797371
P.O. Box 414, Milwaukee, Wisconsin 53201 U.S.A.
(Asia, Pacific, Latin America, North America)

GE Medical Systems — Europe: Telex 698626
283, rue de la Miniére, B.P. 34, 78533 Buc Cedex
France