Technical Publication

Direction 2243317-100

Revision 05

GE Medical Systems
LightSpeed Plus - Schematics, Boards and Diagrams

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IMPORTANT PRECAUTIONS

LANGUAGE

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 NICHT 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。
ＧＥＭＳ以外でサービスを担当される業者が英語以外の言語を要求される場合、翻訳作業はその業者の責任で行うものとさせていただきます。
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:

本维修手册仅存有英文本。
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。

DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent write “Damage In Shipment” on ALL copies of the freight or express bill BEFORE delivery is accepted or “signed for” by a GE representative or 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) 785 5052 or 8*323 5052 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 And Procedures Bulletins.

14 July 1993

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.

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 anyone 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 materials and devices are available. It is urged that such materials or devices be used.

LITHIUM BATTERY CAUTIONARY STATEMENTS



CAUTION Risk of Explosion

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



ATTENTION Danger d'Explosion

Il y a danger d'explosion s'il y a replacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rébut les batteries usagées conformément aux instructions du fabricant.

OMISSIONS & ERRORS

Customers, please contact your GE Sales or Service representatives. GE personnel, please use GEMS' CQA Process to report all omissions, errors, and defects in this publication.

Revision History

Revision	Date	Reason for change
0	10/01/00	Initial release.
1	02/23/01	Updated drawings. CQA 1010297: Replaced old HEMRC cntl bd drawings (2145832sch) with new (2179860sch).
2	04/24/01	Updated Interconnect drawing 2291547 to Rev C; Updated Pegasus IG drawing 2216467 to Rev 0. Added board layout drawings for Gantry boards: 2143147, 2154834, 2179860, 2217038, 2233488, 2236254, 2240680, 2257518, and 46-288512. Replaced several rasterized Console board layout drawings with vector art drawings (cleaner images); Resized most drawings for improved legibility; Added finger tabs to odd numbered pages (within each chapter), for easier navigation; Reordered chapters, to match new Illustrated Parts Manual (Rev 03).
3	10/17/01	Replaced drawings for old Intercom Board, 46-288766G1, with drawings for new board, 2286305; Updated drawings: 2236254, rev 2; 2159578, rev 3; 2266832, rev 2; CQA 1017278: Added Section 2.0 — PDU Control - 2139289 to Chapter 2.
4	02/13/02	CQA 1020169: Fixed drawings in Chapter 2, Section 2.0 — PDU Control - 2139289. CQA 1020600: Added schematics for prescribed tilt board (2269601), in Chapter 4. Changed DIP board to correct P/N (2259530), in Chapter 4, added schematics.
5	08/08/02	CQA 1026454: Added missing sheet 8 of 2154834SCH. CQA 1023390: Updated drawings 2291547 and 2275608 Chapter 1 (Table): • Revised Figure 1-1 Table Door Diagram, Sheet 1 • Removed unnecessary Sonata board schematics (2290734)

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1 – 334	3		
87 – 97, 312 – 323, 326 – 331	4		
22, 24–28, 100–104, 113–114, 208–210,	5		

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Preface
Publication Conventions

Purpose: This section intends to inform the reader of publication conventions used so that the reader can identify, by its format, safety and general material that is considered important. (This also includes the interpretation of computer screen text as either input or output.) There are a number of specific text and paragraph styles/conventions used within this section to accomplish this task.

Please become familiar with the conventions used within this publication before proceeding.

Section 1.0 — Safety & Hazard Information

1.1 Text and Character Representation

Within this publication, different paragraph and character styles have been used to indicated potential hazards. Paragraph prefixes, such as hazard, caution, danger and warning, are used to identify important safety information. Text (Hazard) styles are applied to the paragraph contents that is applicable to each specific safety statement. Words describe the type of potential hazard that may be encountered and are placed immediately before the paragraph it modifies. Safety information will normally include:

- Type of potential Hazard
- Nature of potential injury
- Causative condition
- How to avoid or correct the causative condition

EXAMPLES OF HAZARD STATEMENTS USED

A few examples are provided that have been adapted form GEMS' global document standard (2119696-100). They include paragraph prefixes and modified text styles.



CAUTION
Pinch Points
Loss of Data
Sharp Objects

Caution is used when a hazard exists that can or could cause minor injury to self or others if instructions are ignored. They include, for example:

- **Loss of critical patient data**
- **Crush or pinch points**
- **Sharp objects**

⚠ DANGER
EXCESSIVE VOLTAGE
CRUSH POINT

DANGER IS USED WHEN A HAZARD EXISTS THAT WILL CAUSE SEVERE PERSONAL INJURY OR DEATH IF INSTRUCTIONS ARE IGNORED. THEY CAN INCLUDE:

- **ELECTROCUTION**
- **CRUSHING**
- **RADIATION**

⚠ WARNING
ROTATING EQUIPMENT
BARE WIRES

WARNING IS USED WHEN A HAZARD EXISTS THAT COULD OR CAN CAUSE SERIOUS PERSONAL INJURY OR DEATH IF INSTRUCTIONS ARE IGNORED. THEY CAN INCLUDE:

- Potential for shock
- Exposed wires
- Failure to Tag and lockout system power could allow for un-command motion.

⚠ NOTICE
Equipment Damage Possible

Notice is used when a hazard is present that can cause property damage, but has absolutely no personal injury risk.They can include:

- Disk drive will crash
- Internal mechanical damage, such as to the x-ray tube
- Coasting the rotor through resonance.

It's important that the reader not ignore hazard statements in this document.

1.2 Graphical Representation

Important information will always be preceded by the exclamation point ⚠ contained within a triangle, as seen throughout this chapter. In addition to text, several different graphical icons (symbols) may be used to make you aware of specific types of hazards that could cause harm.

ELECTRICAL



MECHANICAL



RADIATION



LASER



HEAT



PINCH



Some others make you aware of specific procedures that should be followed.

AVOID STATIC ELECTRICITY



TAG AND LOCK OUT



WEAR EYE PROTECTION



Section 2.0 — Conventions Used For General Information

2.1 Document Paragraph and Character Styles

Prefixes are used to highlight important non-safety related information. Paragraph prefixes (such as Example, Comment and Note) are used to identify important but non-safety related information. Text styles are also applied to text within each paragraph modified by the specific prefix.

EXAMPLES OF PREFIXES USED FOR GENERAL INFORMATION

Note: **Conveys information that should be considered important to the reader.**

Example: Used to make the reader aware that the paragraph(s) that follow are examples of information possibly stated previously.

Comment: Represents "additional" information that may or may not be relevant.

2.2 Publication Page Layout

Headers and footers in this publication are designed to allow you to quickly identify your location. The document's part number and revision number appear in every header on every page. Odd numbered page footers indicate the current chapter, its title and current page number. Even page footers show the current section and its title, as well current page number.

2.3 Buttons, Switches and Keyboard Inputs (Hard & Soft Keys)

Different character styles are used to indicate actions requiring the reader to press either a hard or soft button, switch or key. Physical hardware, such as buttons and switches, are called **hard keys** because they are hard wired or mechanical in nature. A keyboard or on/off switch would be a hard key. Software or computer generated buttons are called **soft keys**, because they are software generated. Software driven menu buttons are an example of such keys. Soft and hard keys are represented differently in this publication.

Example: Hard Keys A power switch **ON/OFF** or a keyboard key like **ENTER** is indicated by applying a character style that uses both over and under-lined bold text that is bold. This is a hard key.

Example: Soft Keys — Whereas the computer MENU button that you would click with your mouse or touch with your hand uses over and under-lined regular text. This is a soft key.

Chapter 1
Table

Section 1.0 — Table Door Diagrams

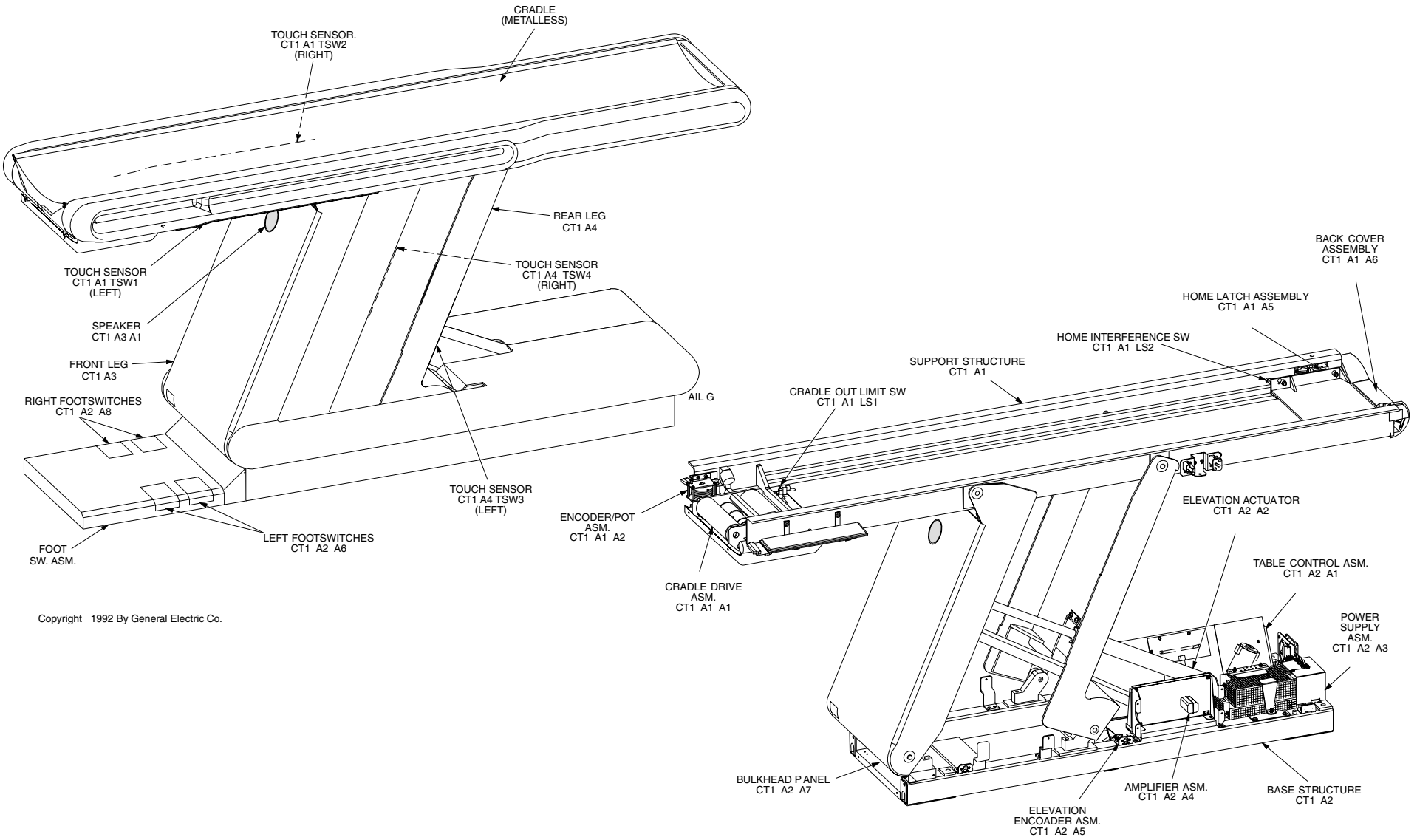


Figure 1-1 Table Door Diagram, Sheet 1

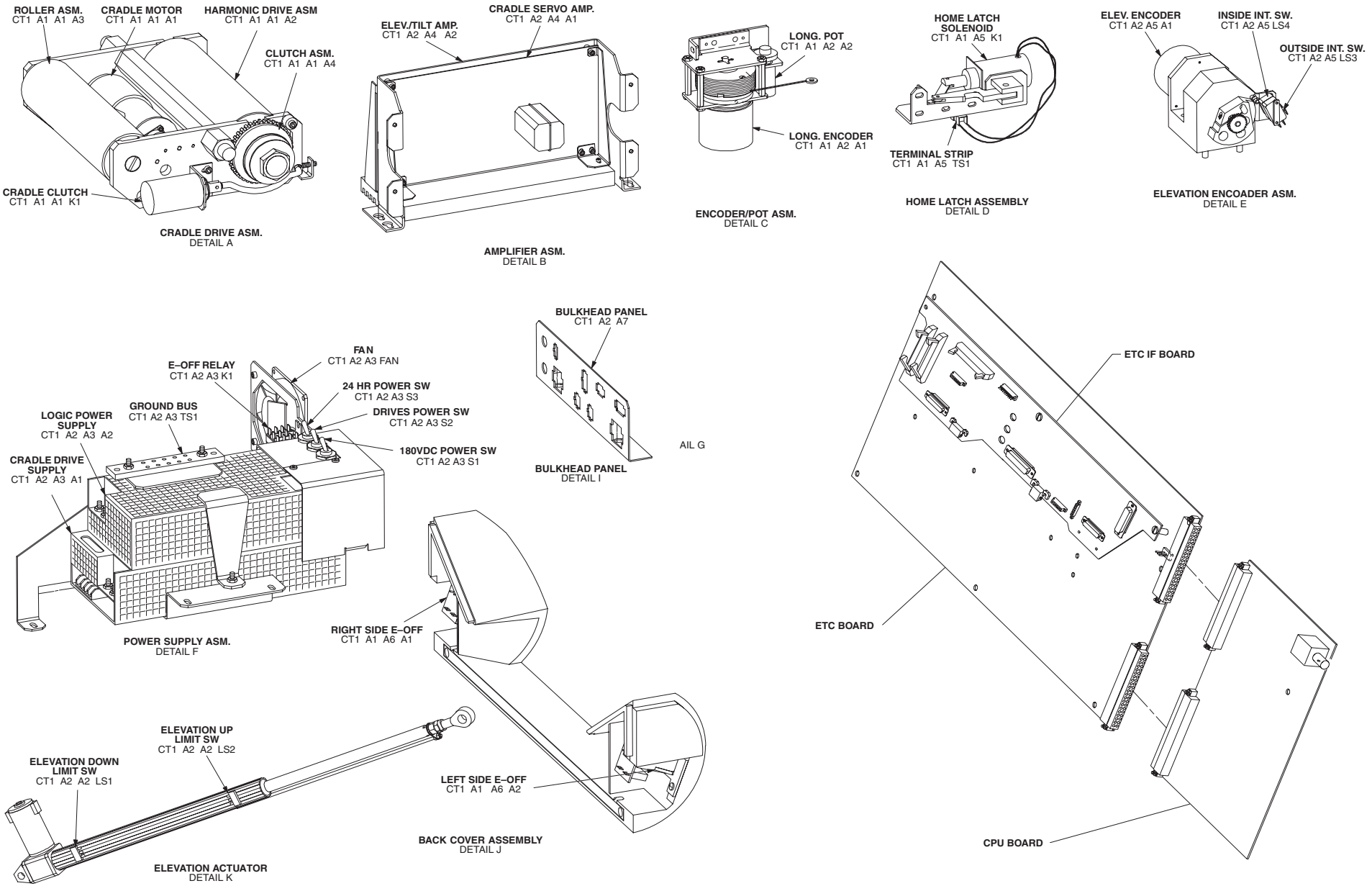


Figure 1-2 Table Door Diagram, Sheet 2

Section 2.0 — Table Cable Interconnect

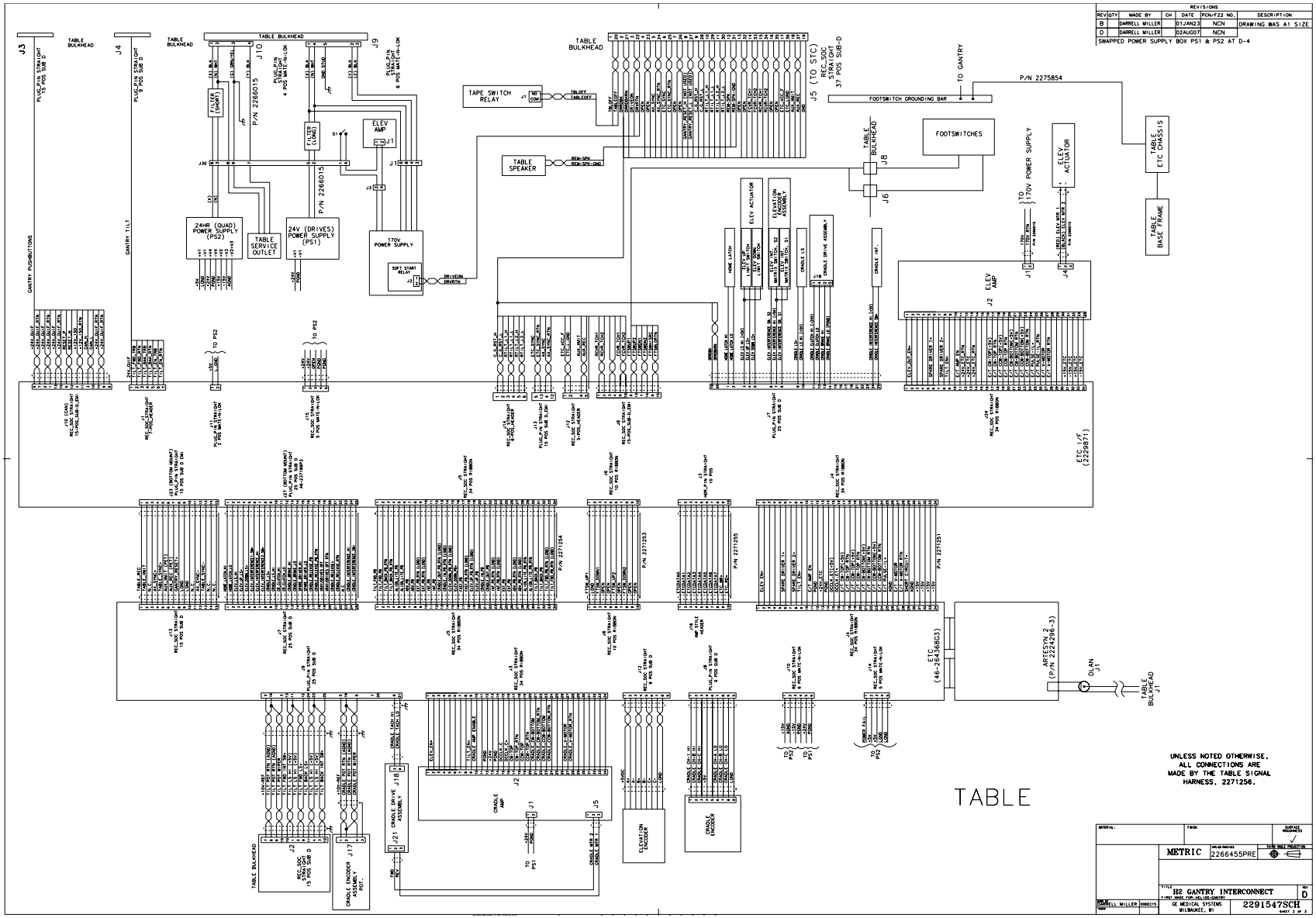


Figure 1-3 2291547, Sheet 3, Rev. D (detail on further pages)

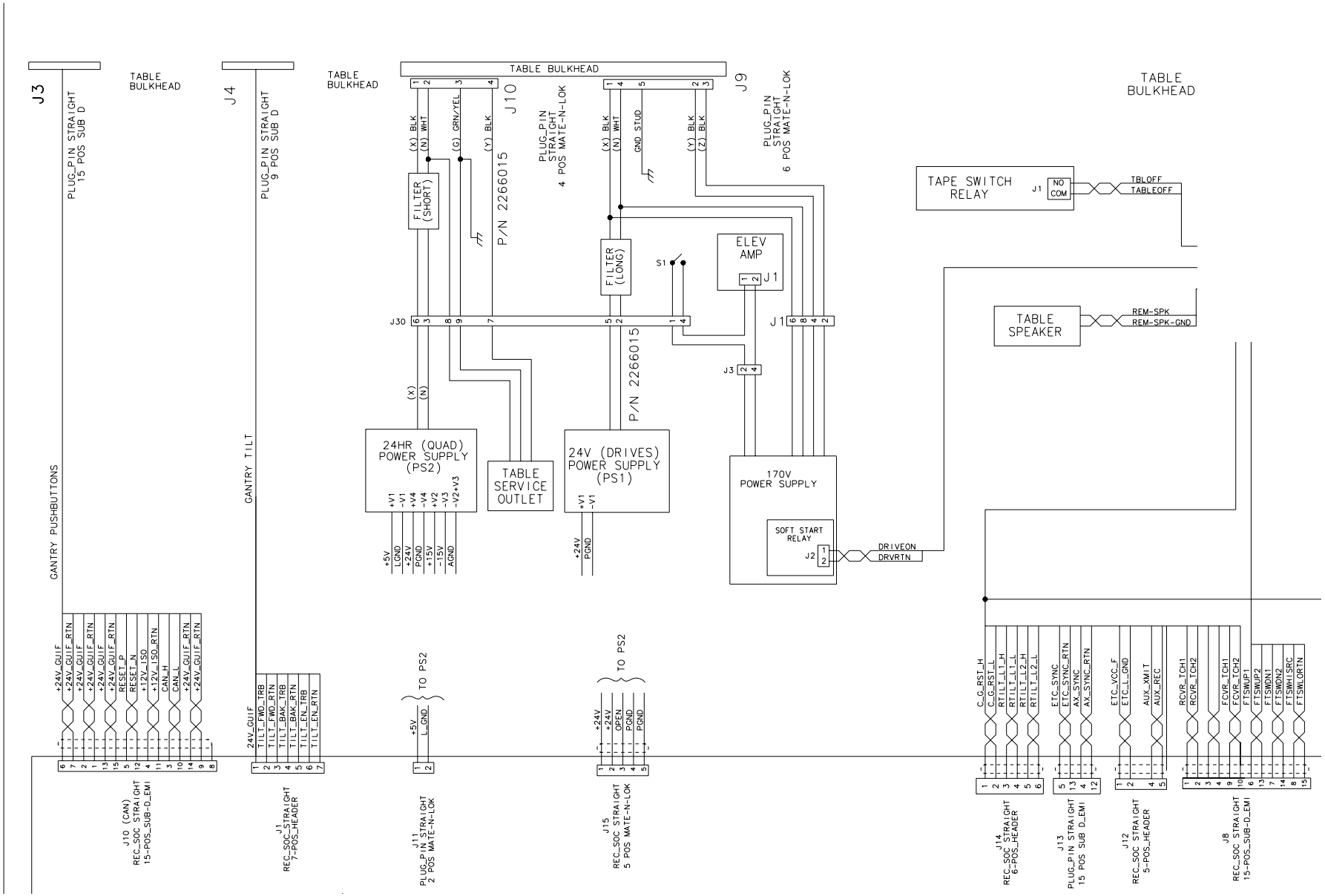


Figure 1-4 2291547, Sheet 3, Rev. D (Upper Left Quadrant)

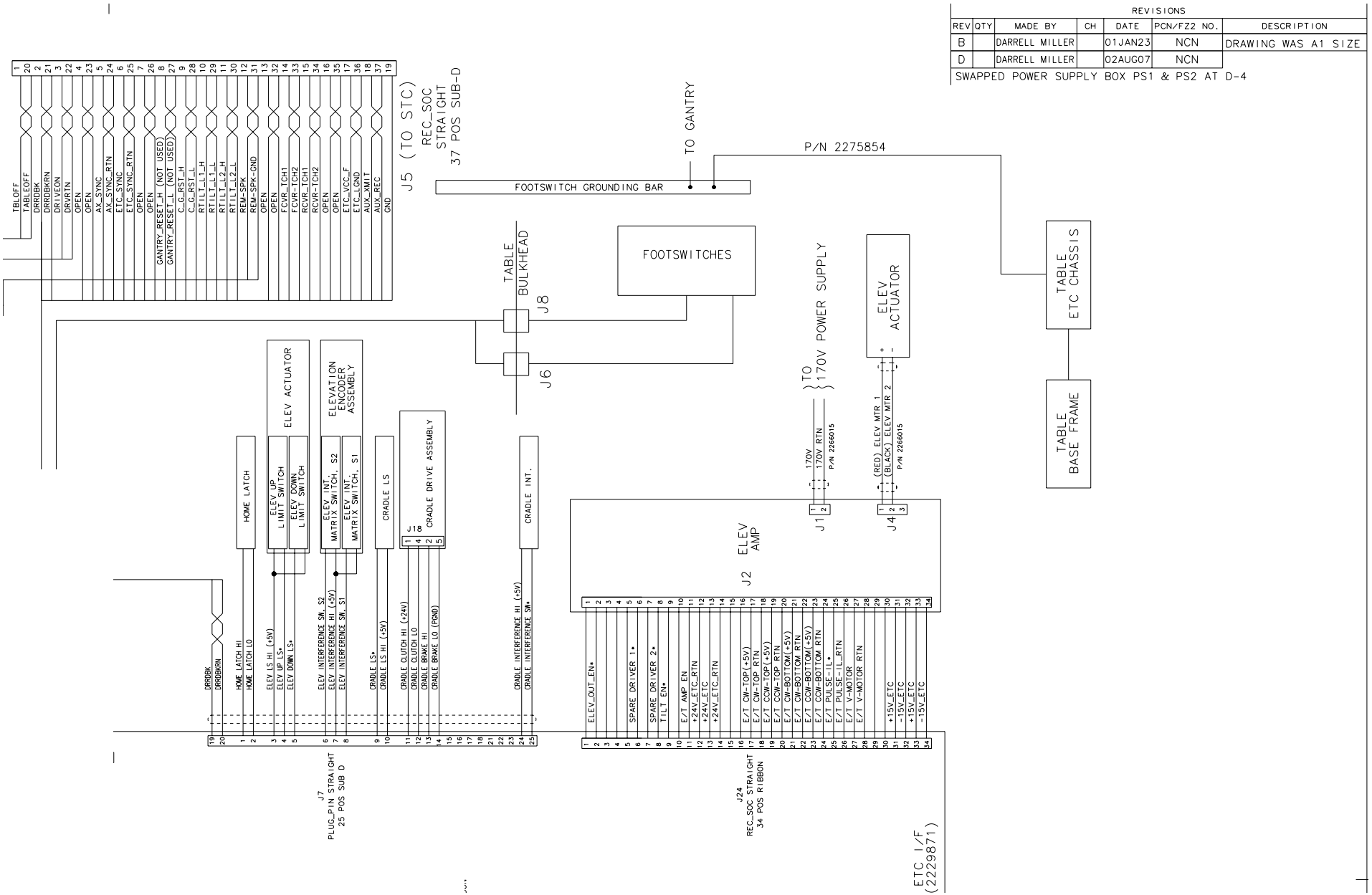


Figure 1-5 2291547, Sheet 3, Rev. D (Upper Right Quadrant)

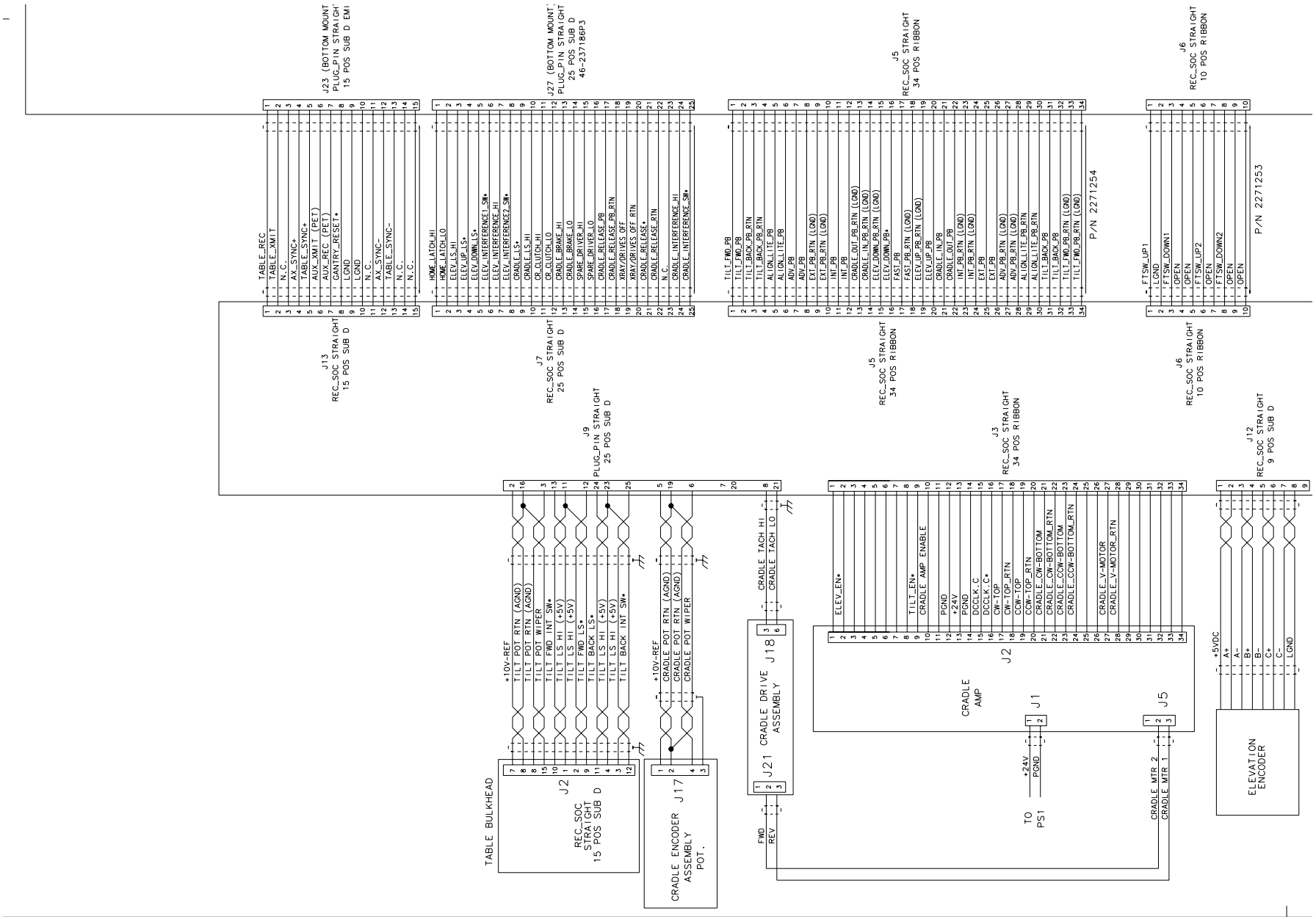


Figure 1-6 2291547, Sheet 3, Rev. D (Lower Left Quadrant)

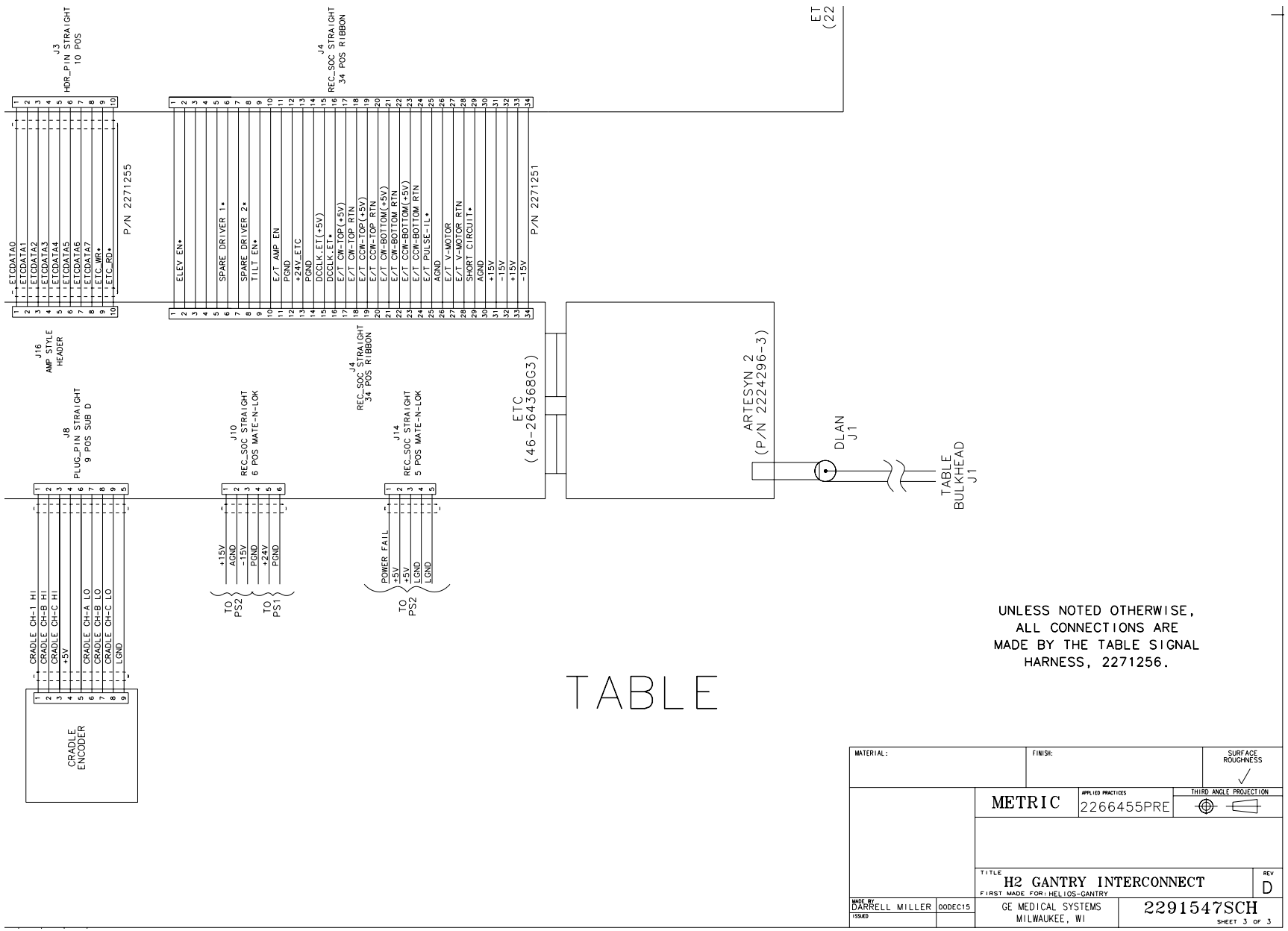


Figure 1-7 2291547, Sheet 3, Rev. D (Lower Right Quadrant)

Section 3.0 — Enhanced Table Control - 46-264368

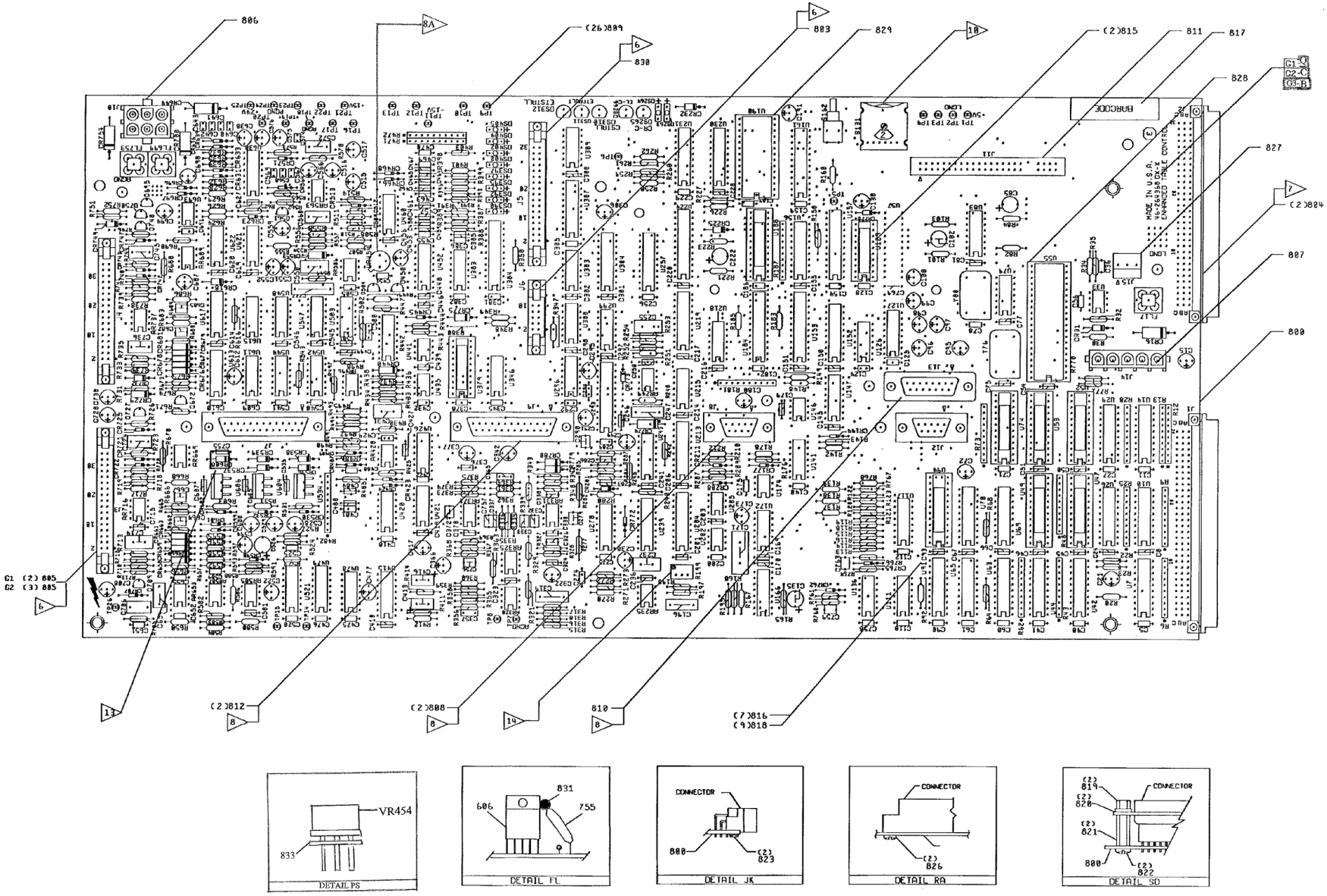


Figure 1-8 46-264368 Board Layout, Rev 8

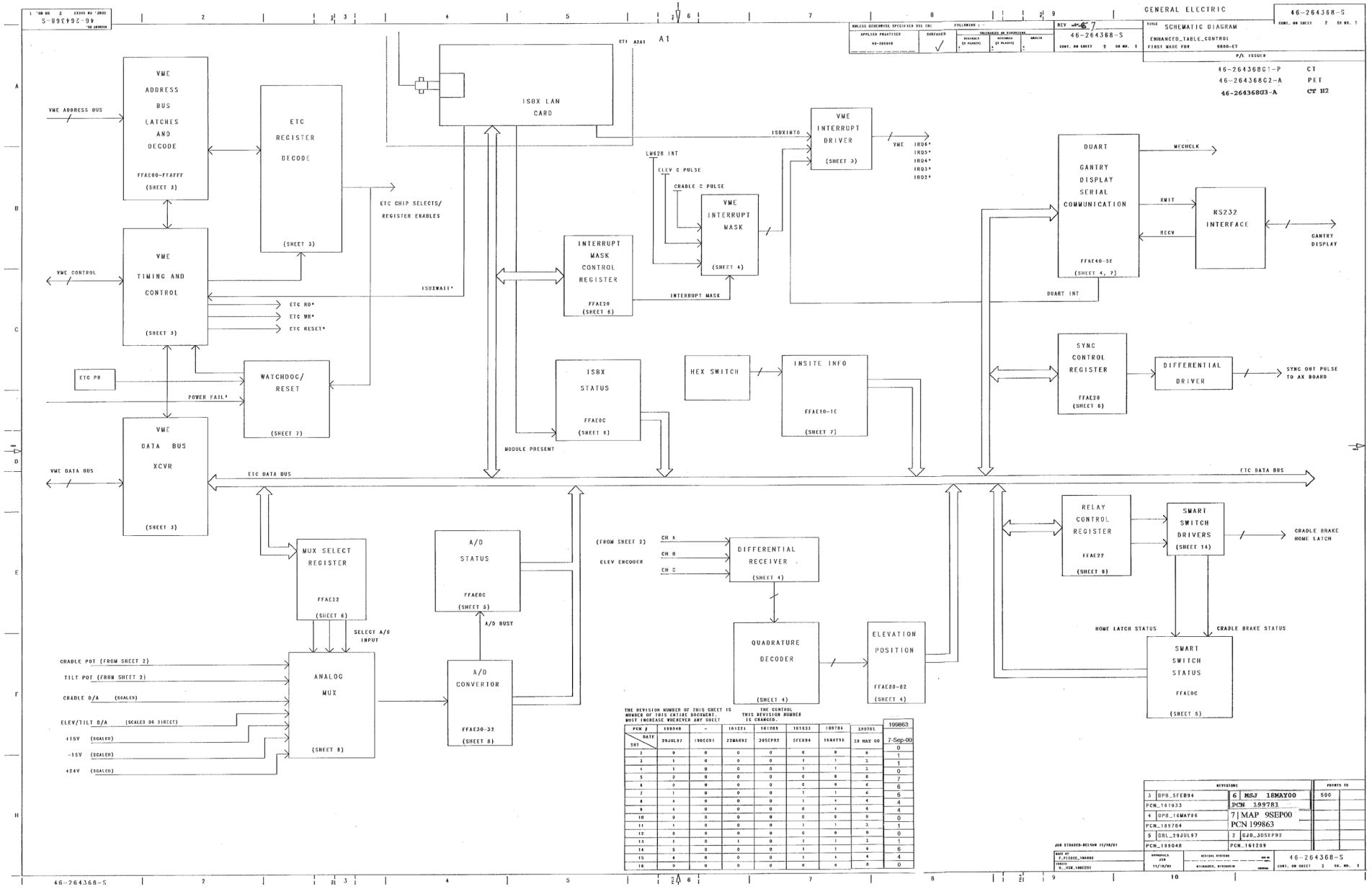


Figure 1-9 46-264368, Sheet 1, Rev. 7

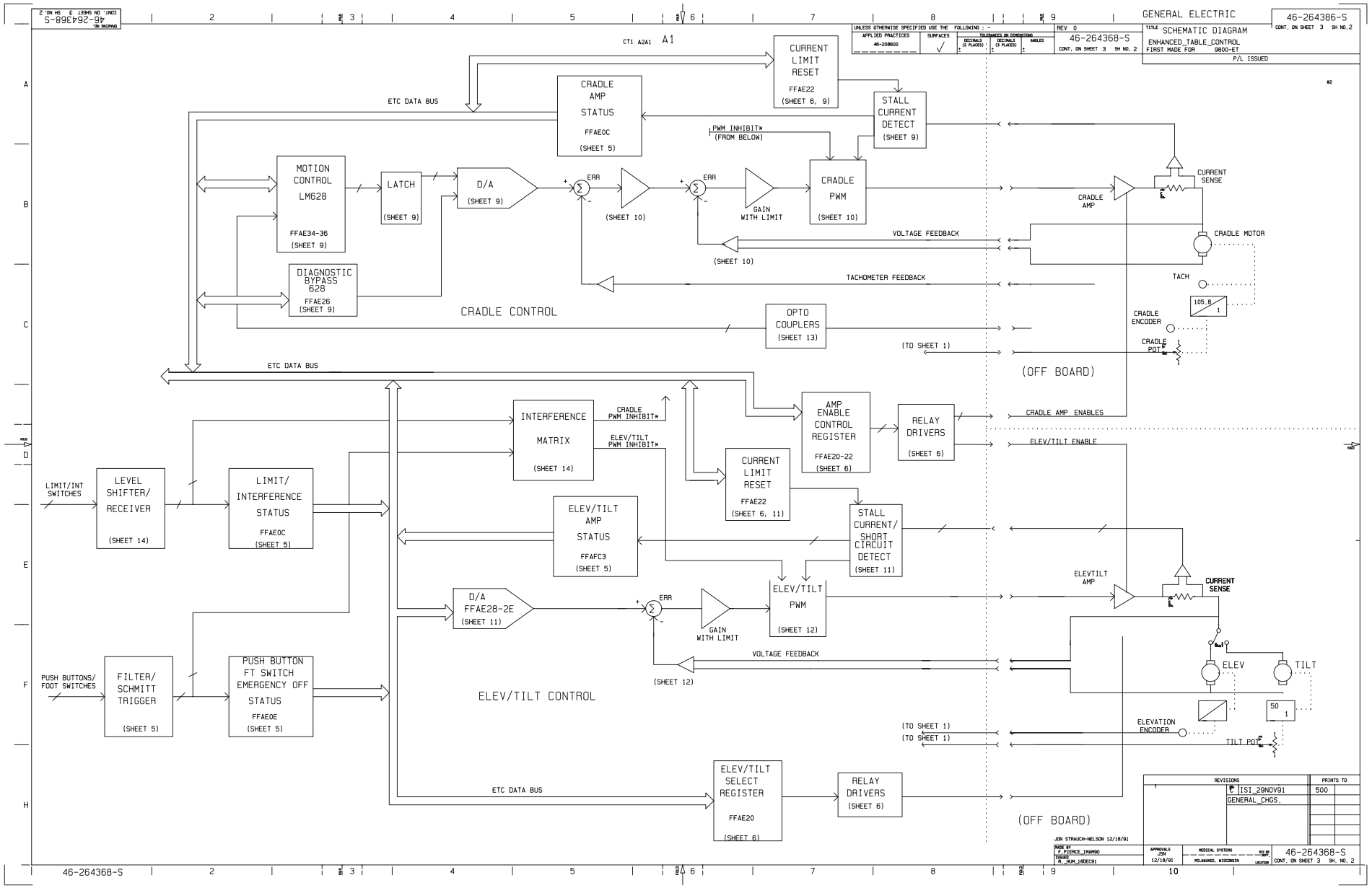


Figure 1-10 46-264368, Sheet 2, Rev. 0

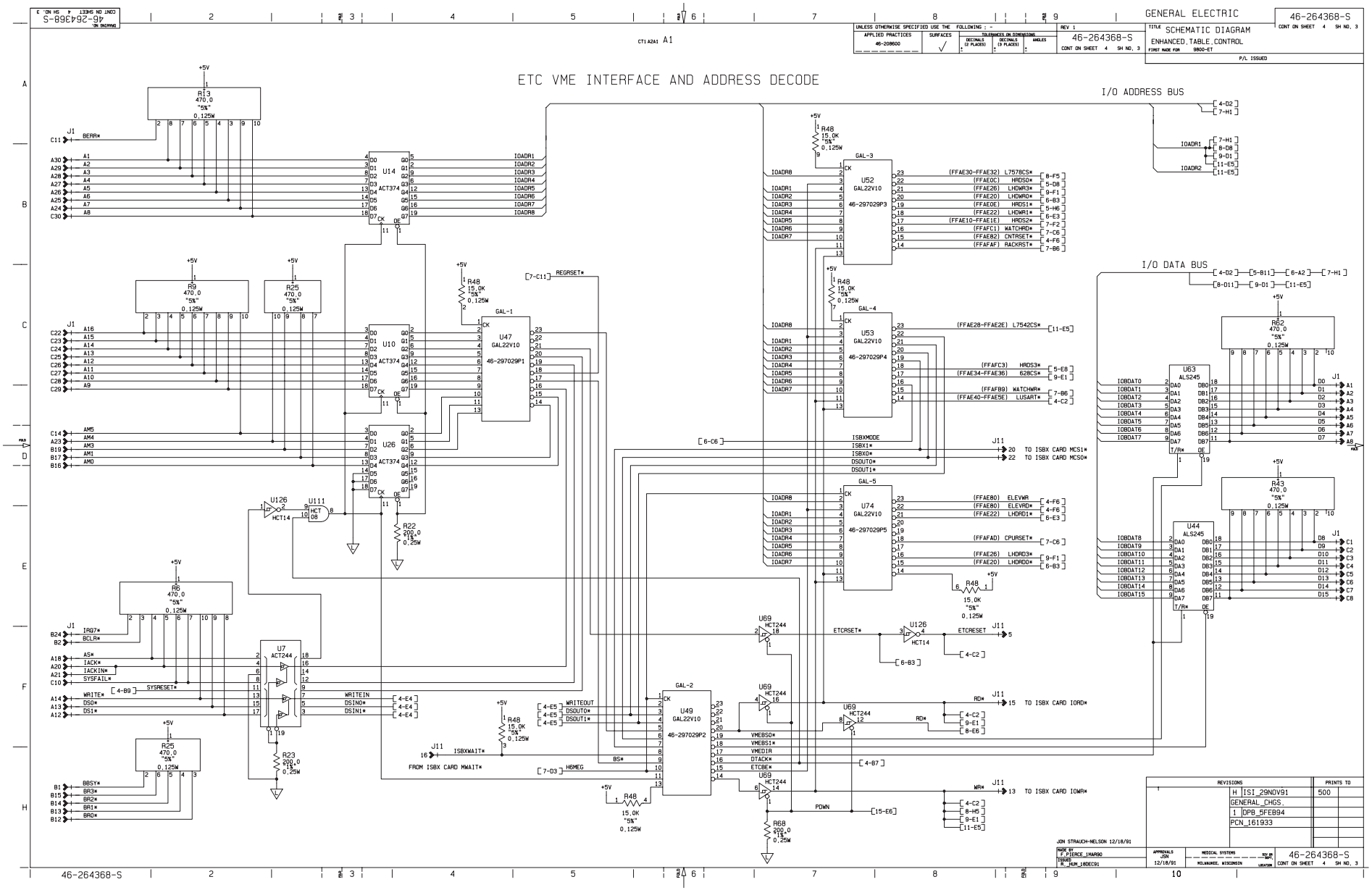


Figure 1-11 46-264368, Sheet 3, Rev. 1

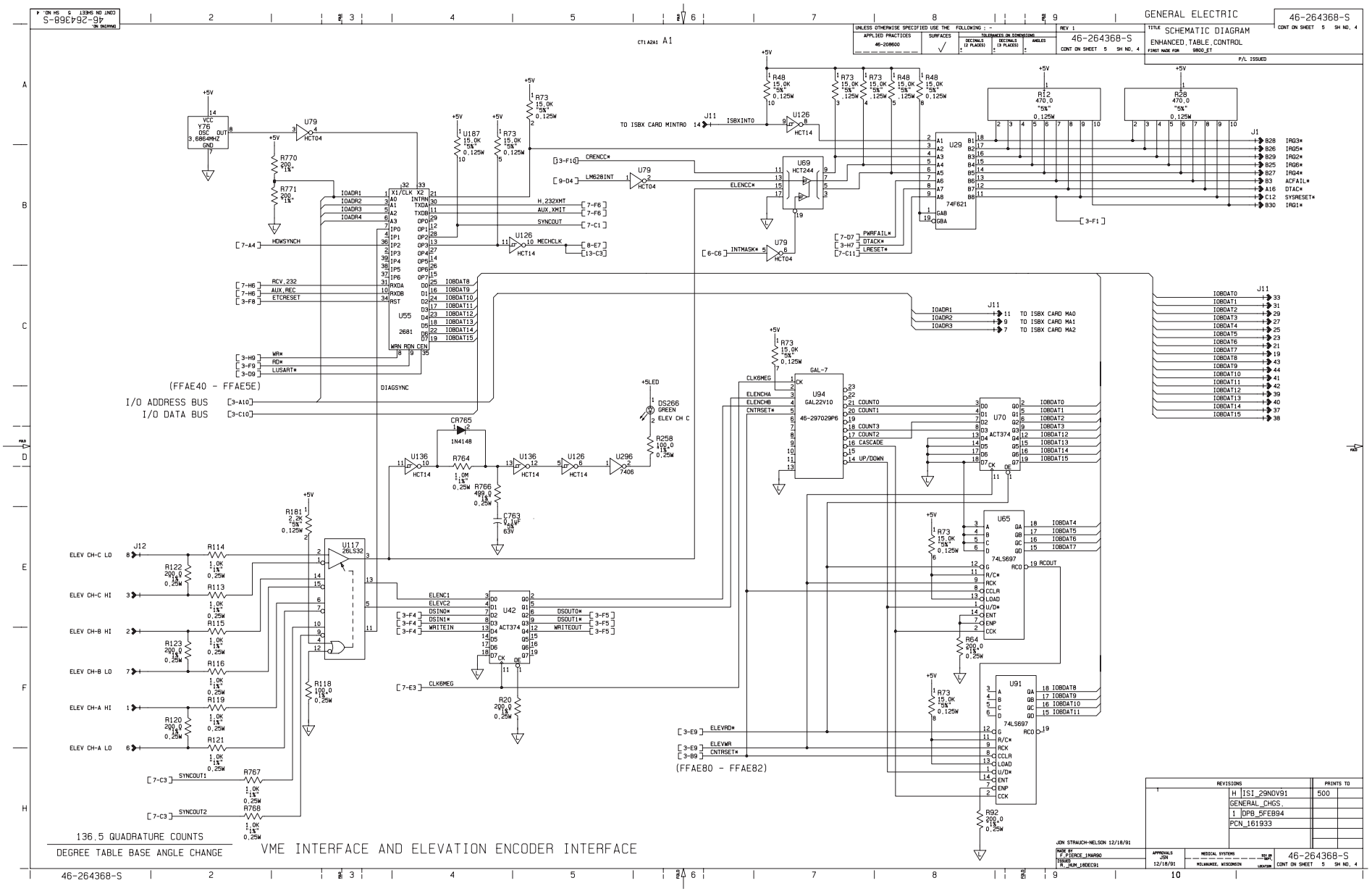


Figure 1-12 46-264368, Sheet 4, Rev. 1

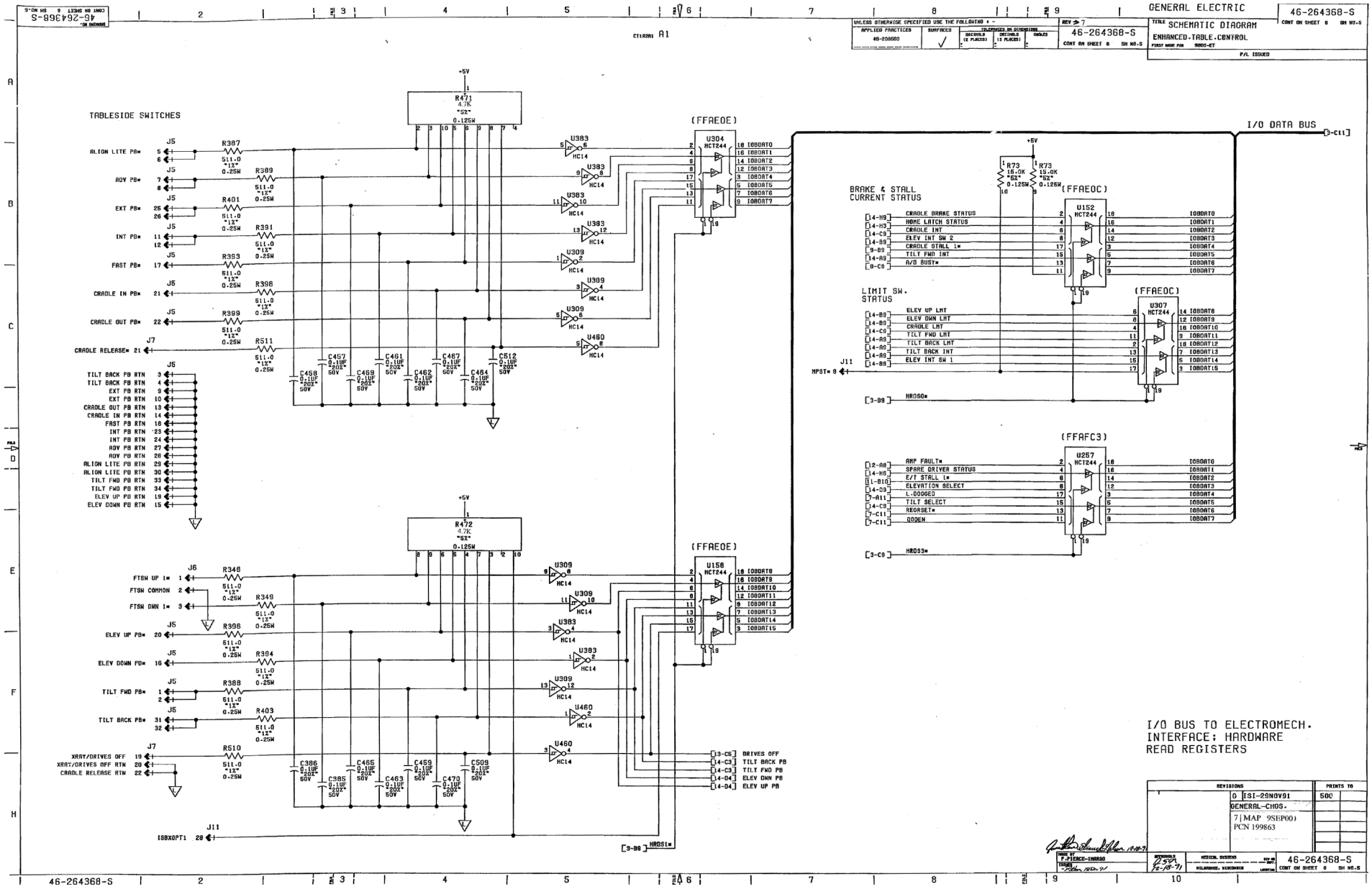


Figure 1-13 46-264368, Sheet 5, Rev. 7

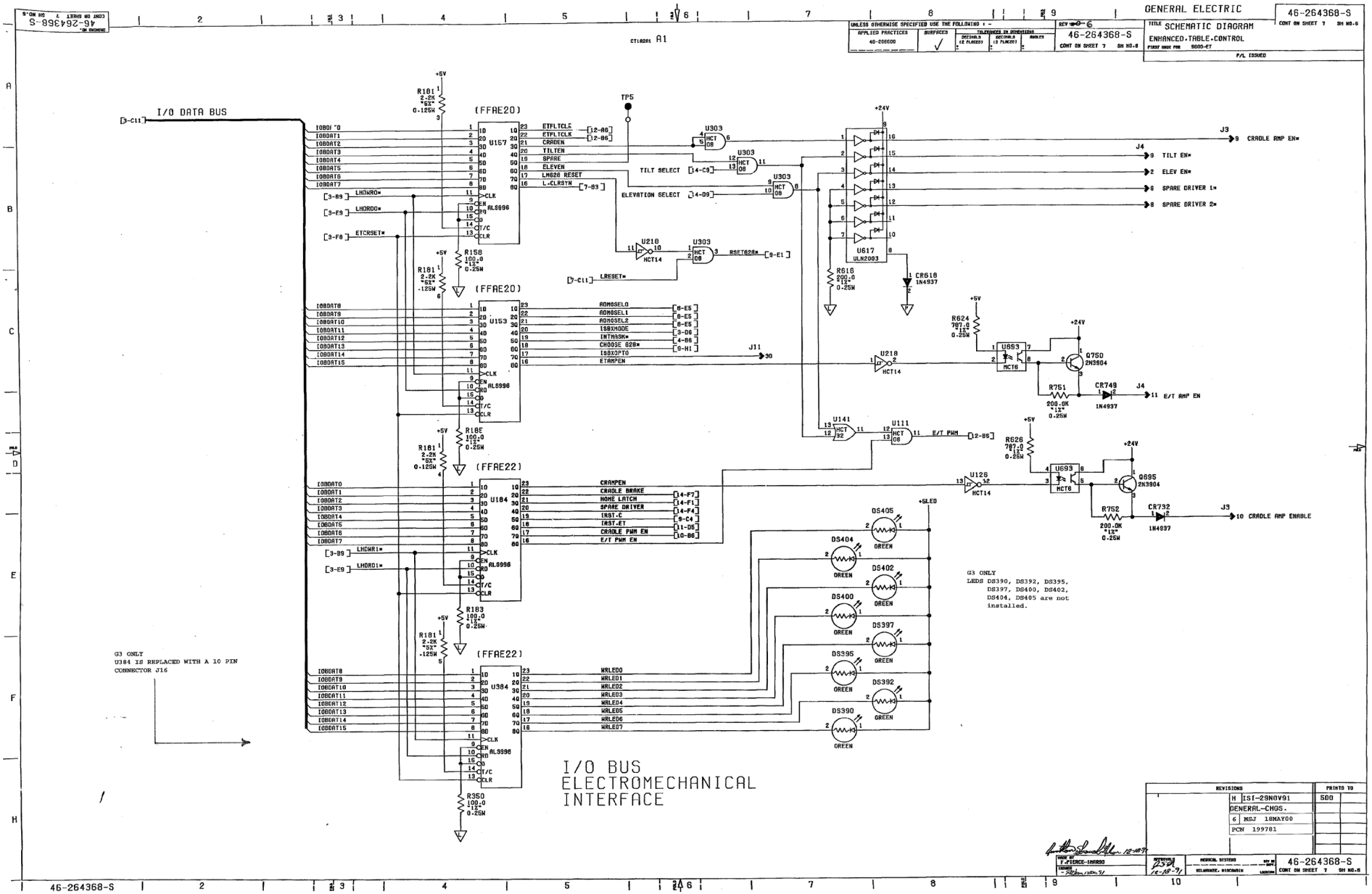


Figure 1-14 46-264368, Sheet 6, Rev. 6

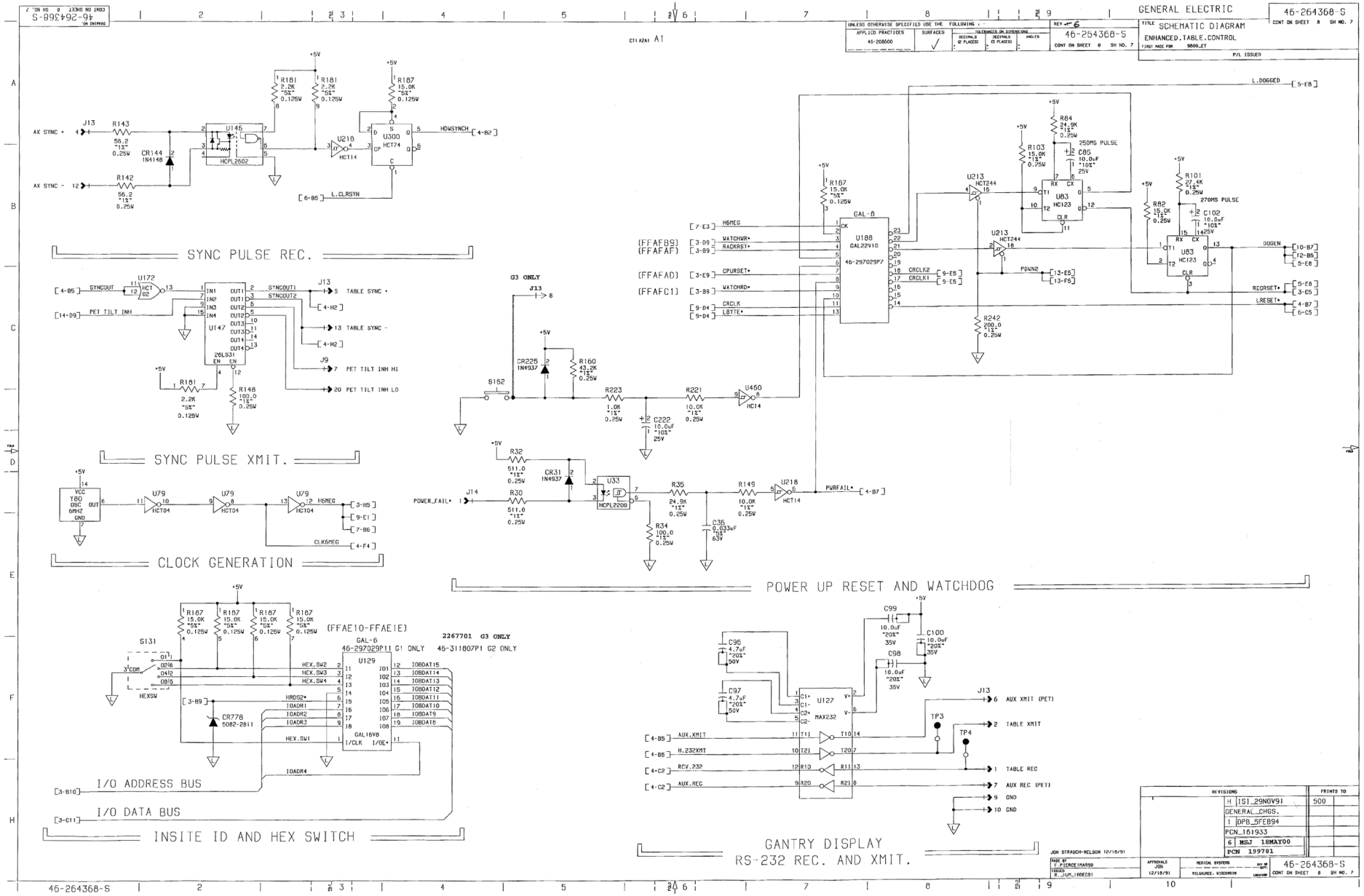


Figure 1-15 46-264368, Sheet 7, Rev. 6

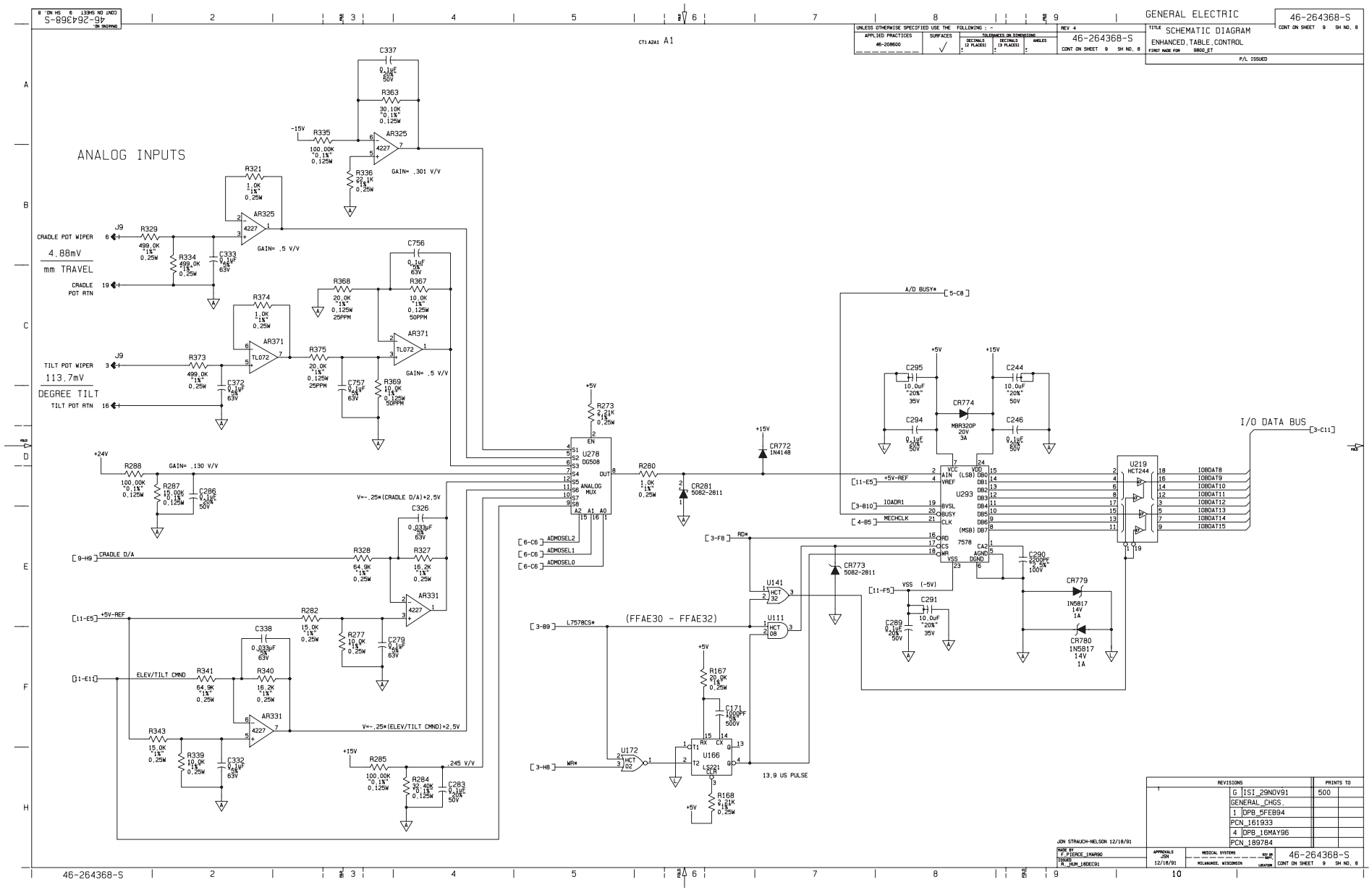


Figure 1-16 46-264368, Sheet 8, Rev. 4

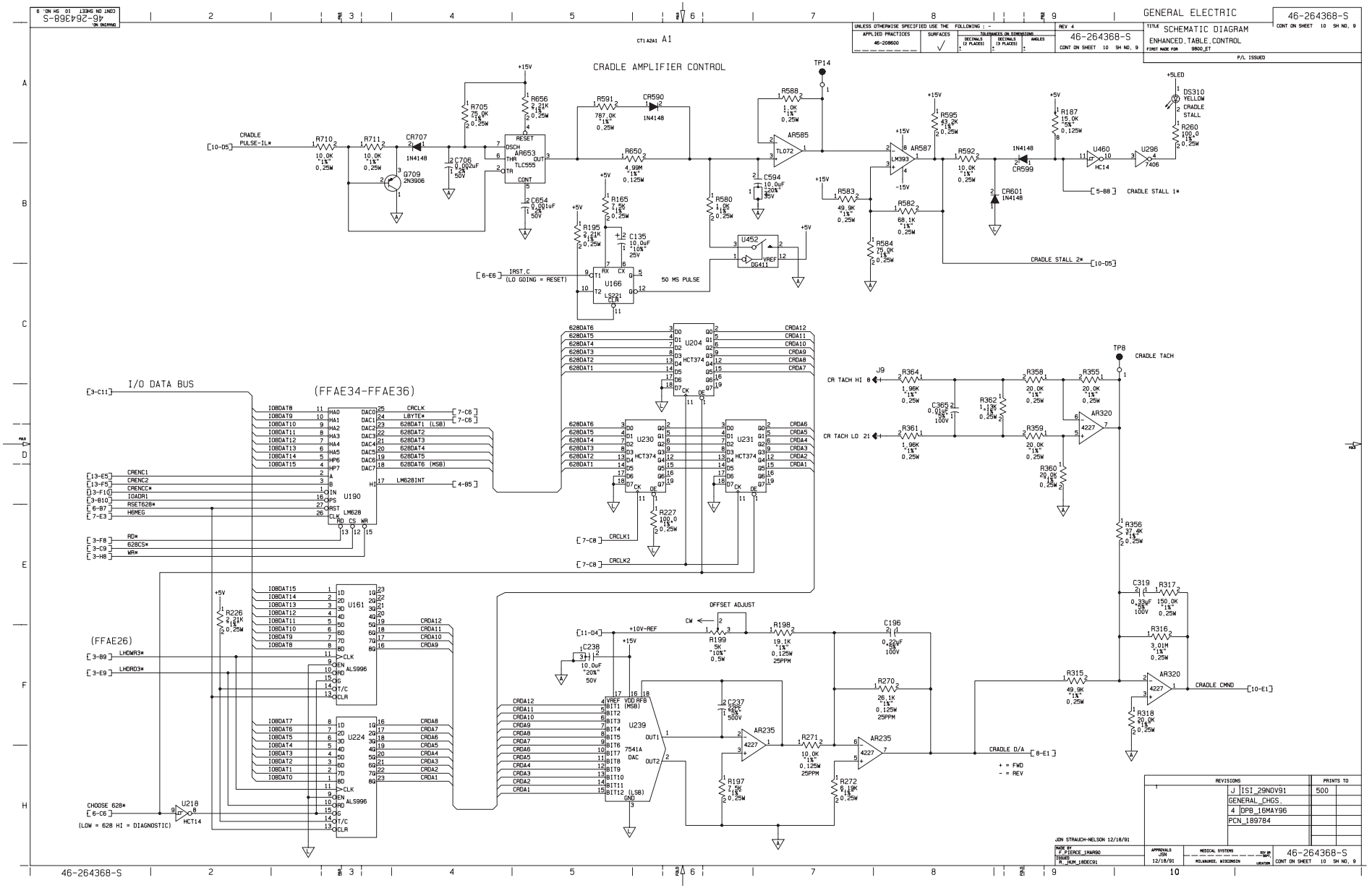


Figure 1-17 46-264368, Sheet 9, Rev. 4

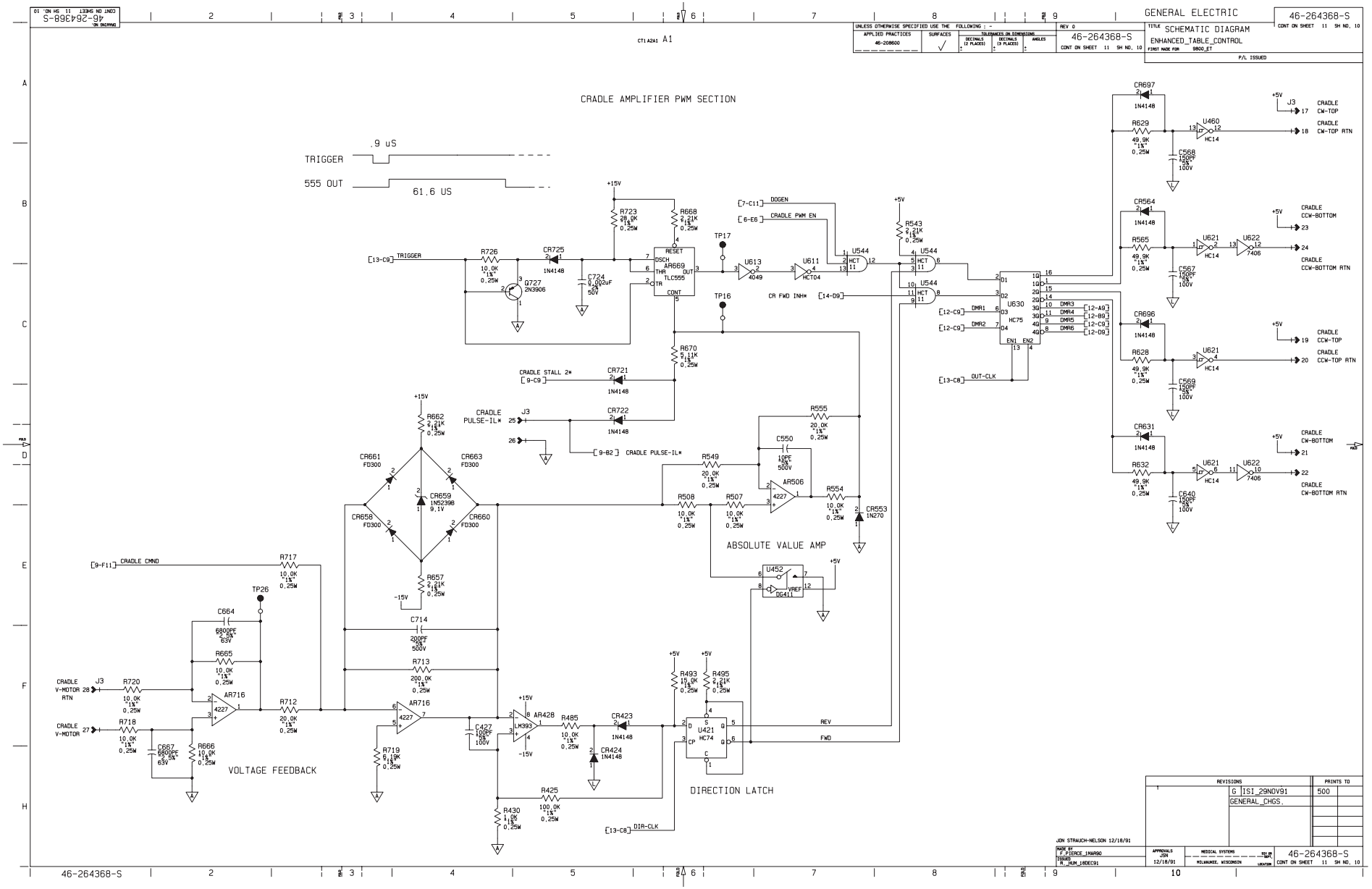


Figure 1-18 46-264368, Sheet 10, Rev. 0

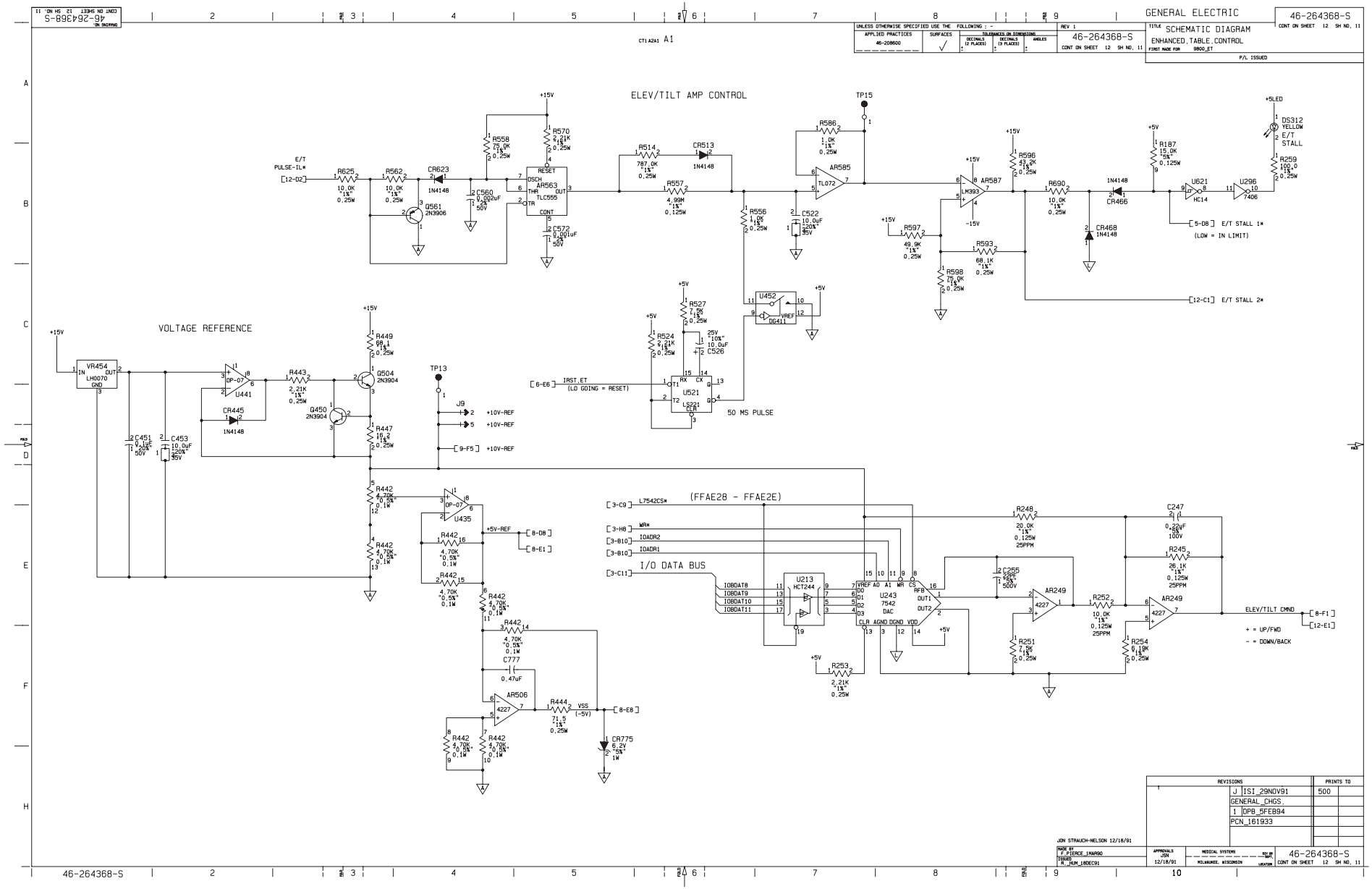


Figure 1-19 46-264368, Sheet 11, Rev. 1

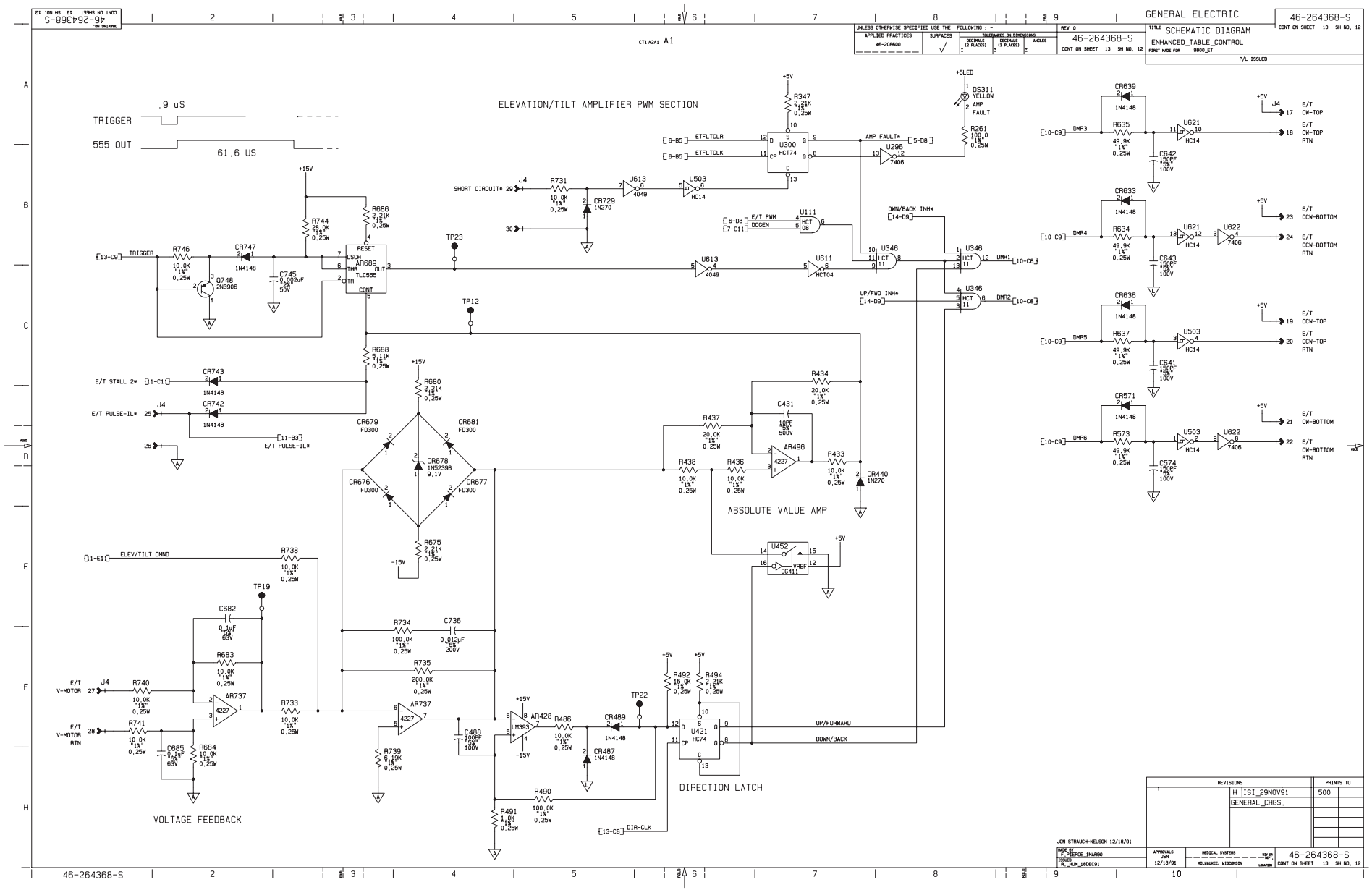


Figure 1-20 46-264368, Sheet 12, Rev. 0

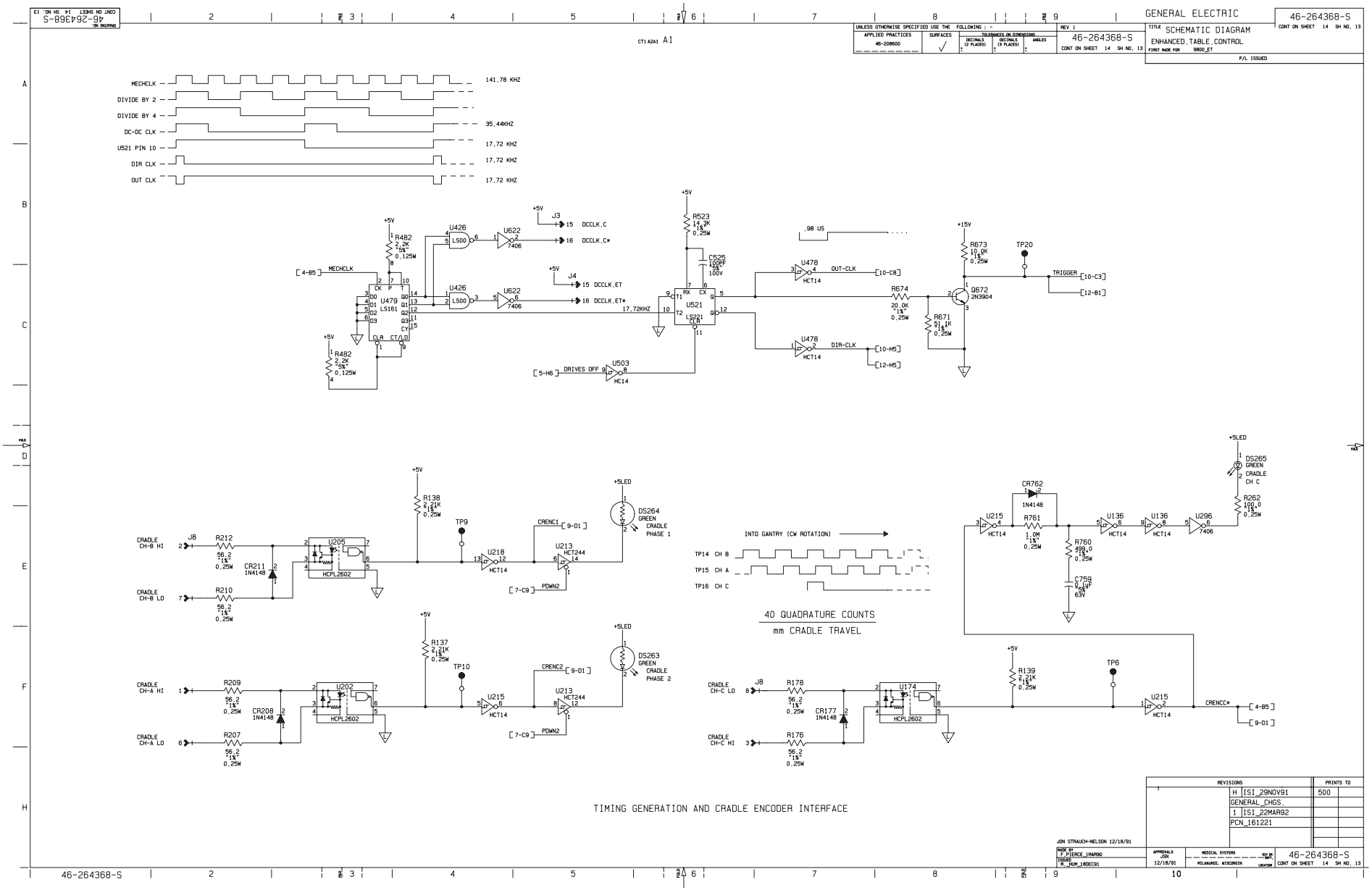


Figure 1-21 46-264368, Sheet 13, Rev. 1

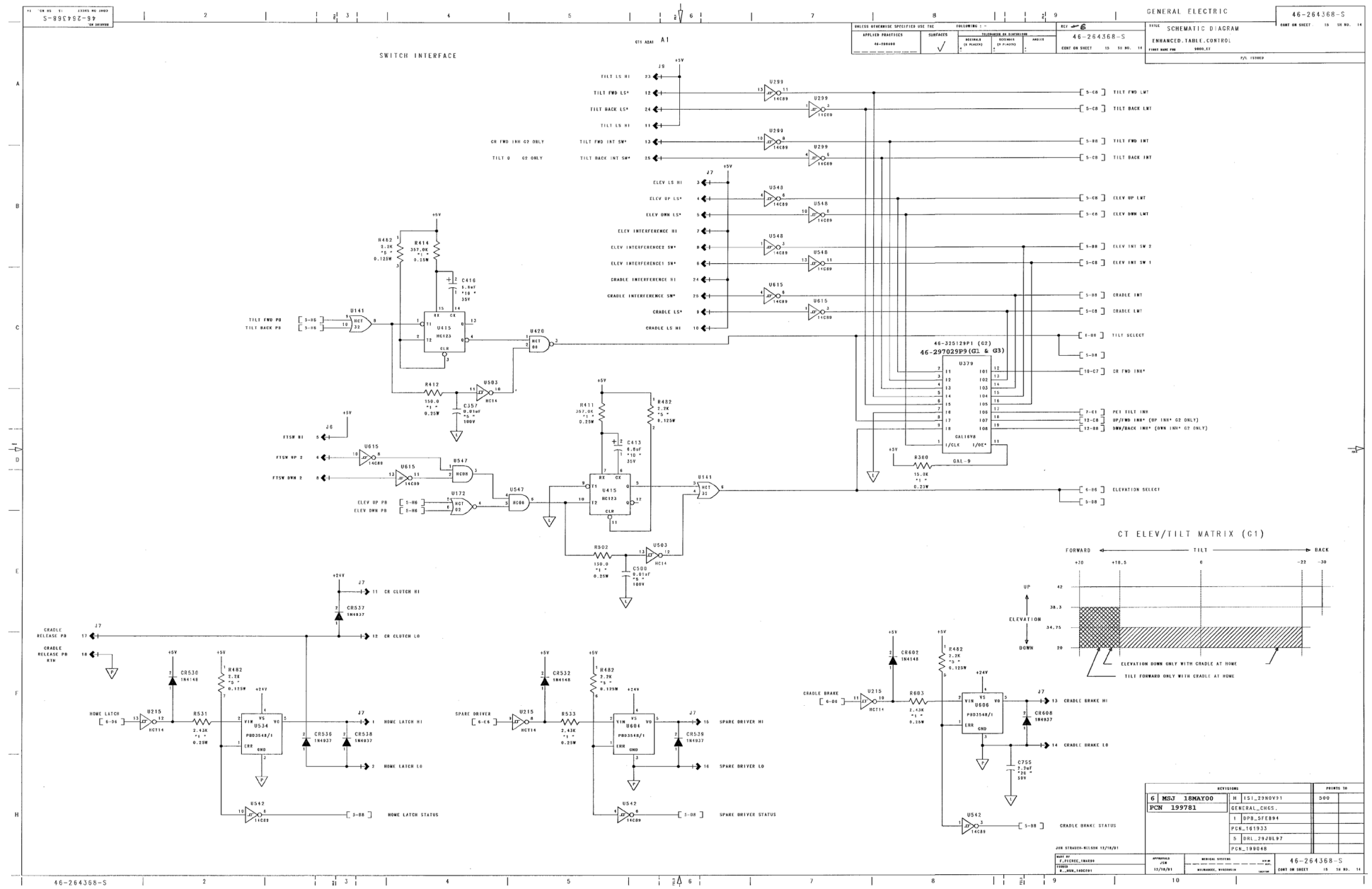


Figure 1-22 46-264368, Sheet 14, Rev. 6

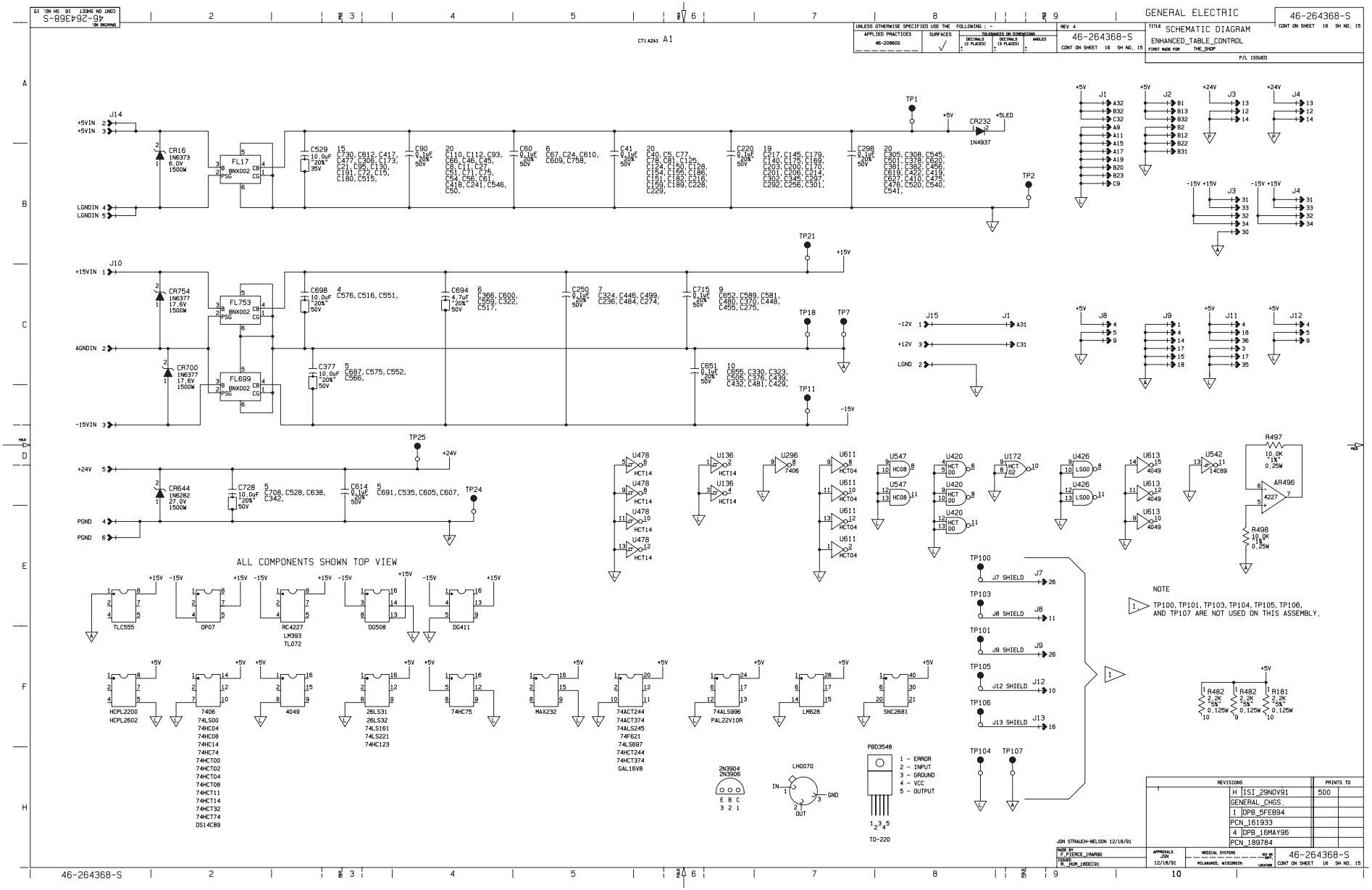
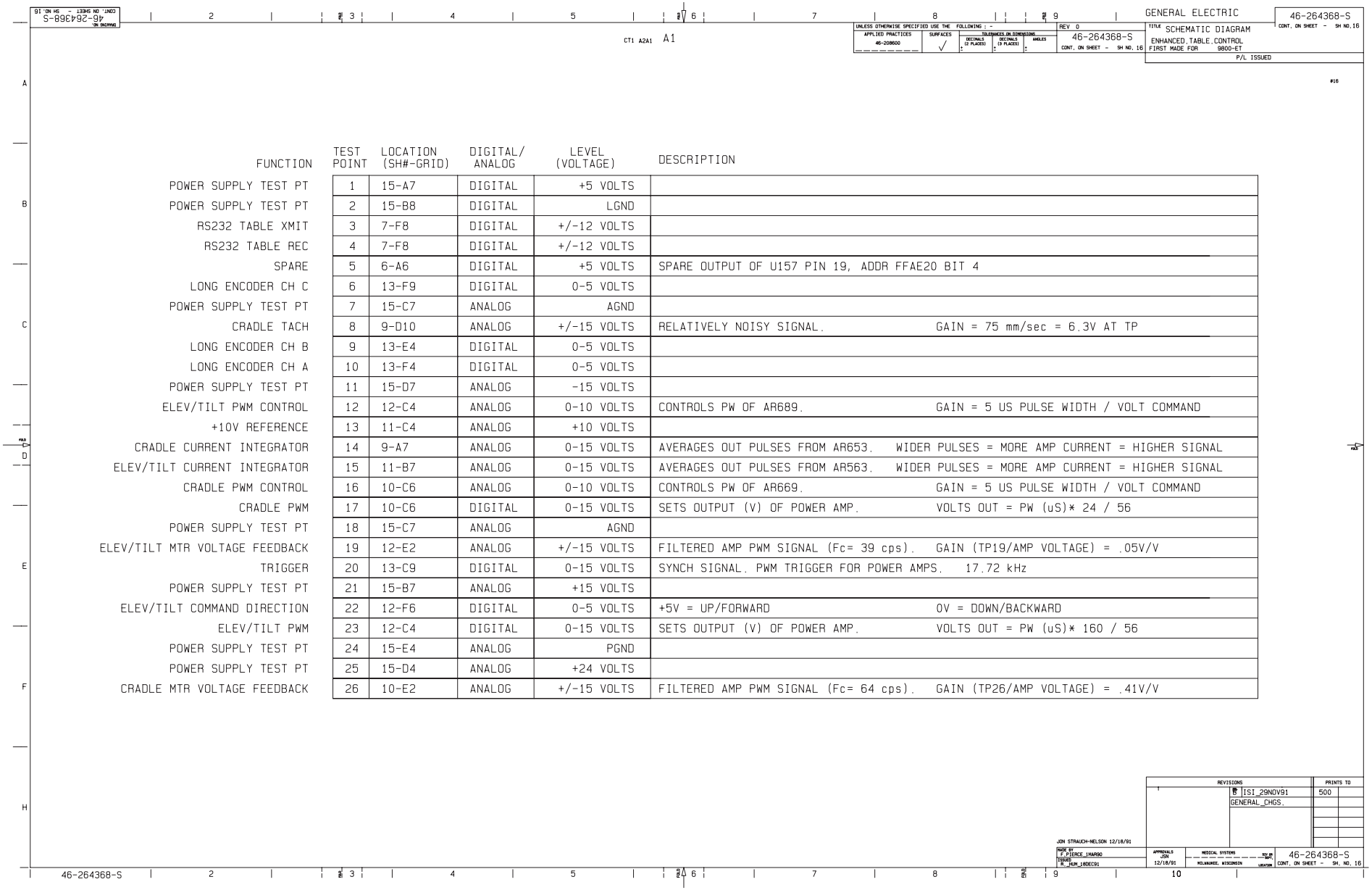


Figure 1-23 46-264368, Sheet 15, Rev. 4



FUNCTION	TEST POINT	LOCATION (SH#-GRID)	DIGITAL/ ANALOG	LEVEL (VOLTAGE)	DESCRIPTION
POWER SUPPLY TEST PT	1	15-A7	DIGITAL	+5 VOLTS	
POWER SUPPLY TEST PT	2	15-B8	DIGITAL	LGND	
RS232 TABLE XMIT	3	7-F8	DIGITAL	+/-12 VOLTS	
RS232 TABLE REC	4	7-F8	DIGITAL	+/-12 VOLTS	
SPARE	5	6-A6	DIGITAL	+5 VOLTS	SPARE OUTPUT OF U157 PIN 19, ADDR FFAE20 BIT 4
LONG ENCODER CH C	6	13-F9	DIGITAL	0-5 VOLTS	
POWER SUPPLY TEST PT	7	15-C7	ANALOG	AGND	
CRADLE TACH	8	9-D10	ANALOG	+/-15 VOLTS	RELATIVELY NOISY SIGNAL. GAIN = 75 mm/sec = 6.3V AT TP
LONG ENCODER CH B	9	13-E4	DIGITAL	0-5 VOLTS	
LONG ENCODER CH A	10	13-F4	DIGITAL	0-5 VOLTS	
POWER SUPPLY TEST PT	11	15-D7	ANALOG	-15 VOLTS	
ELEV/TILT PWM CONTROL	12	12-C4	ANALOG	0-10 VOLTS	CONTROLS PW OF AR689. GAIN = 5 US PULSE WIDTH / VOLT COMMAND
+10V REFERENCE	13	11-C4	ANALOG	+10 VOLTS	
CRADLE CURRENT INTEGRATOR	14	9-A7	ANALOG	0-15 VOLTS	AVERAGES OUT PULSES FROM AR653. WIDER PULSES = MORE AMP CURRENT = HIGHER SIGNAL
ELEV/TILT CURRENT INTEGRATOR	15	11-B7	ANALOG	0-15 VOLTS	AVERAGES OUT PULSES FROM AR563. WIDER PULSES = MORE AMP CURRENT = HIGHER SIGNAL
CRADLE PWM CONTROL	16	10-C6	ANALOG	0-10 VOLTS	CONTROLS PW OF AR669. GAIN = 5 US PULSE WIDTH / VOLT COMMAND
CRADLE PWM	17	10-C6	DIGITAL	0-15 VOLTS	SETS OUTPUT (V) OF POWER AMP. VOLTS OUT = PW (uS)* 24 / 56
POWER SUPPLY TEST PT	18	15-C7	ANALOG	AGND	
ELEV/TILT MTR VOLTAGE FEEDBACK	19	12-E2	ANALOG	+/-15 VOLTS	FILTERED AMP PWM SIGNAL (Fc= 39 cps). GAIN (TP19/AMP VOLTAGE) = .05V/V
TRIGGER	20	13-C9	DIGITAL	0-15 VOLTS	SYNCH SIGNAL. PWM TRIGGER FOR POWER AMPS. 17.72 kHz
POWER SUPPLY TEST PT	21	15-B7	ANALOG	+15 VOLTS	
ELEV/TILT COMMAND DIRECTION	22	12-F6	DIGITAL	0-5 VOLTS	+5V = UP/FORWARD 0V = DOWN/BACKWARD
ELEV/TILT PWM	23	12-C4	DIGITAL	0-15 VOLTS	SETS OUTPUT (V) OF POWER AMP. VOLTS OUT = PW (uS)* 160 / 56
POWER SUPPLY TEST PT	24	15-E4	ANALOG	PGND	
POWER SUPPLY TEST PT	25	15-D4	ANALOG	+24 VOLTS	
CRADLE MTR VOLTAGE FEEDBACK	26	10-E2	ANALOG	+/-15 VOLTS	FILTERED AMP PWM SIGNAL (Fc= 64 cps). GAIN (TP26/AMP VOLTAGE) = .41V/V

Figure 1-24 46-264368, Sheet 16, Rev. 0

Section 4.0 — Cradle Power Amp - 46-264370

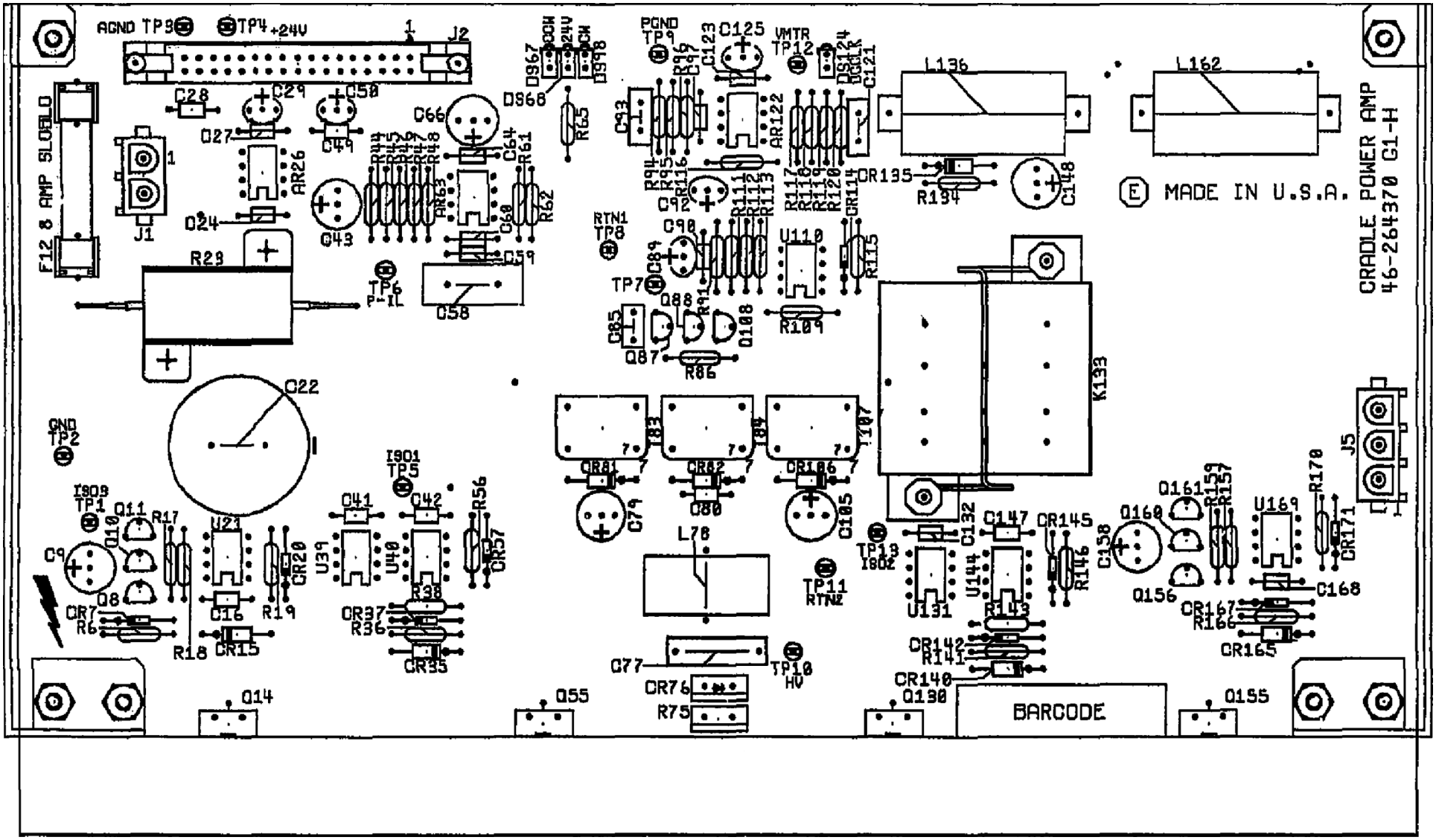


Figure 1-25 Cradle Power Amp Board Layout, Rev 0

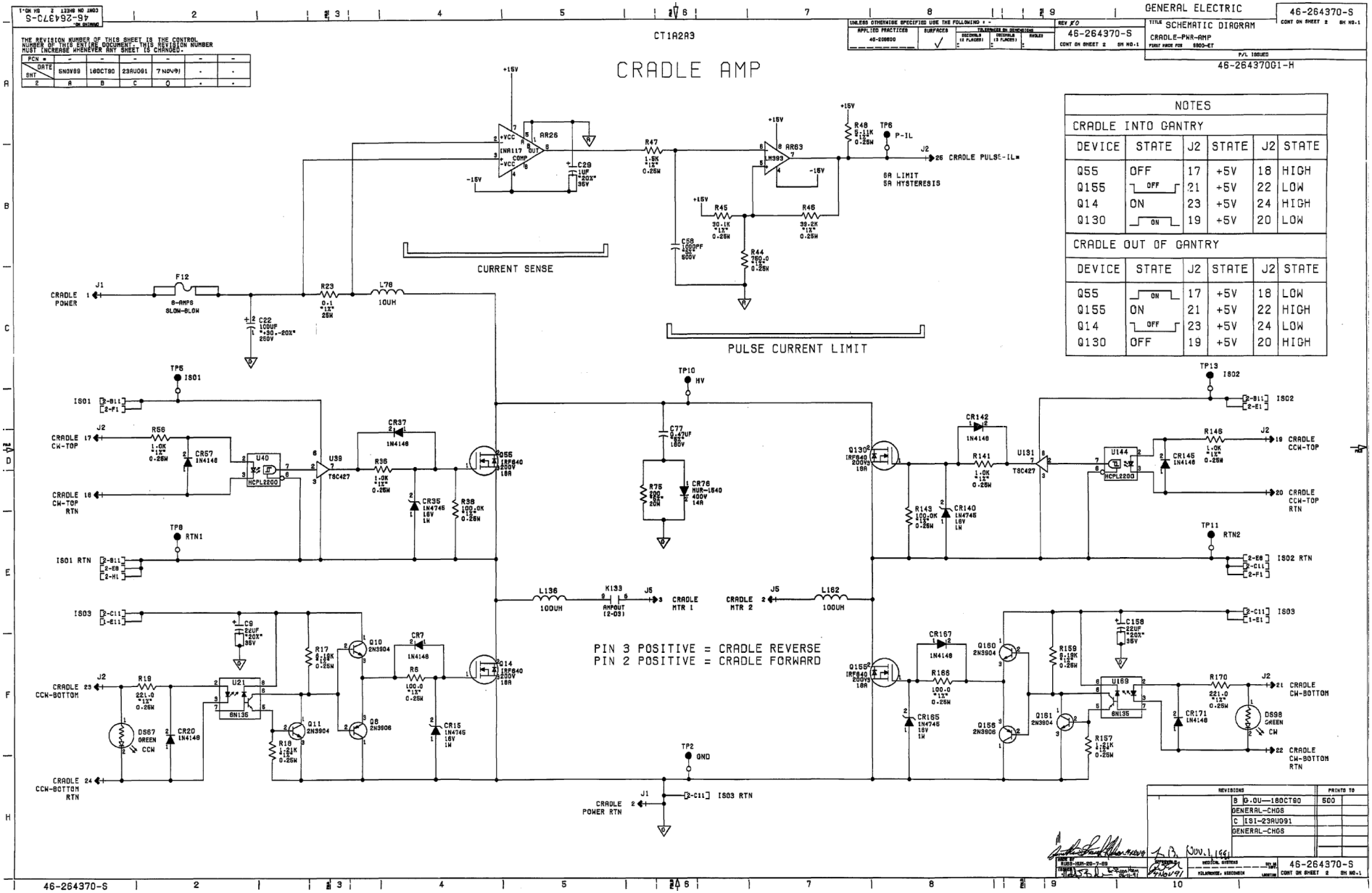


Figure 1-26 46-264370, Sheet 1, Rev. 0

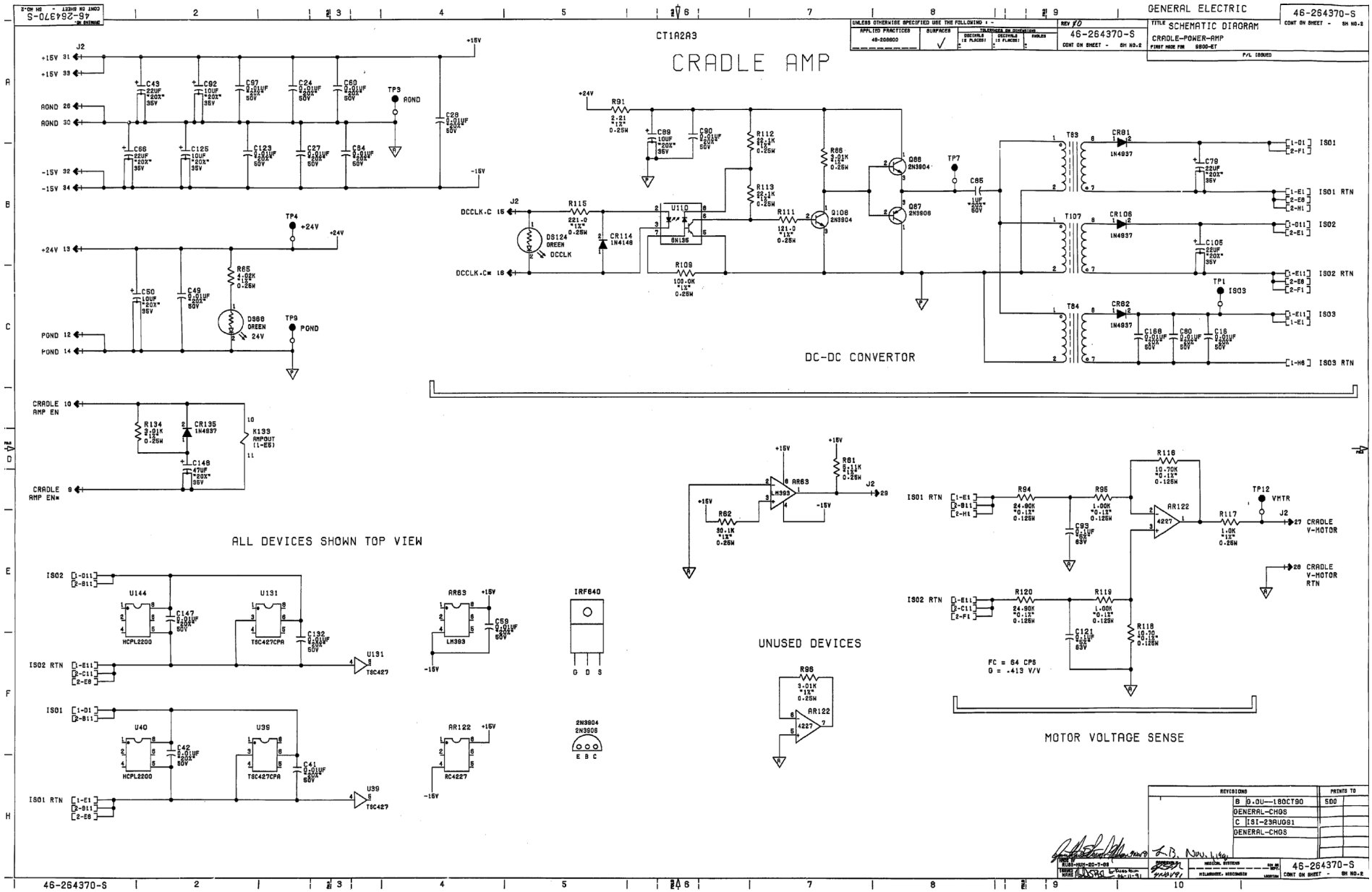


Figure 1-27 46-264370, Sheet 2, Rev. 0

Section 5.0 — Elevation/Tilt Amp - 46-288170

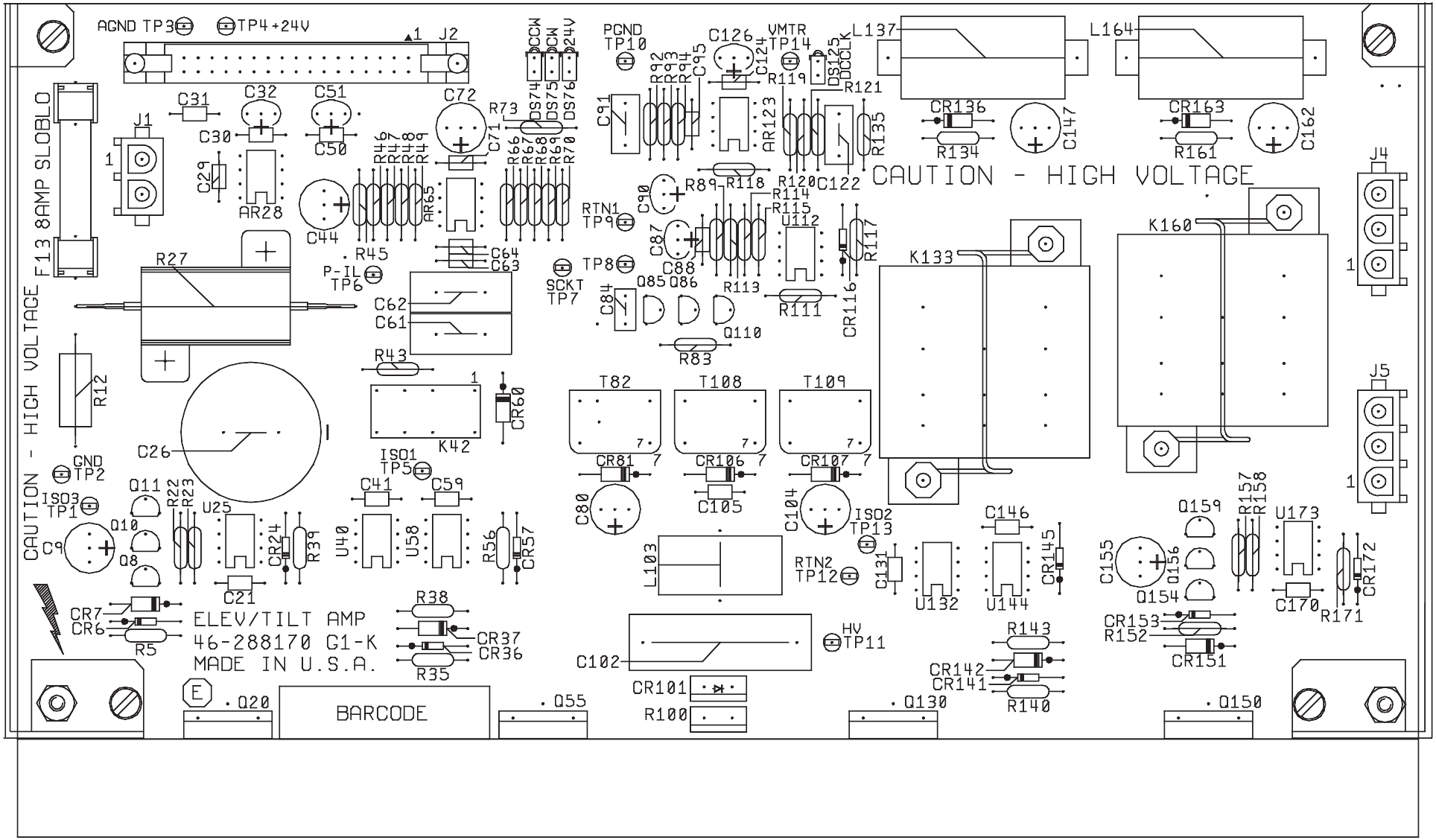


Figure 1-28 46-288170 Board

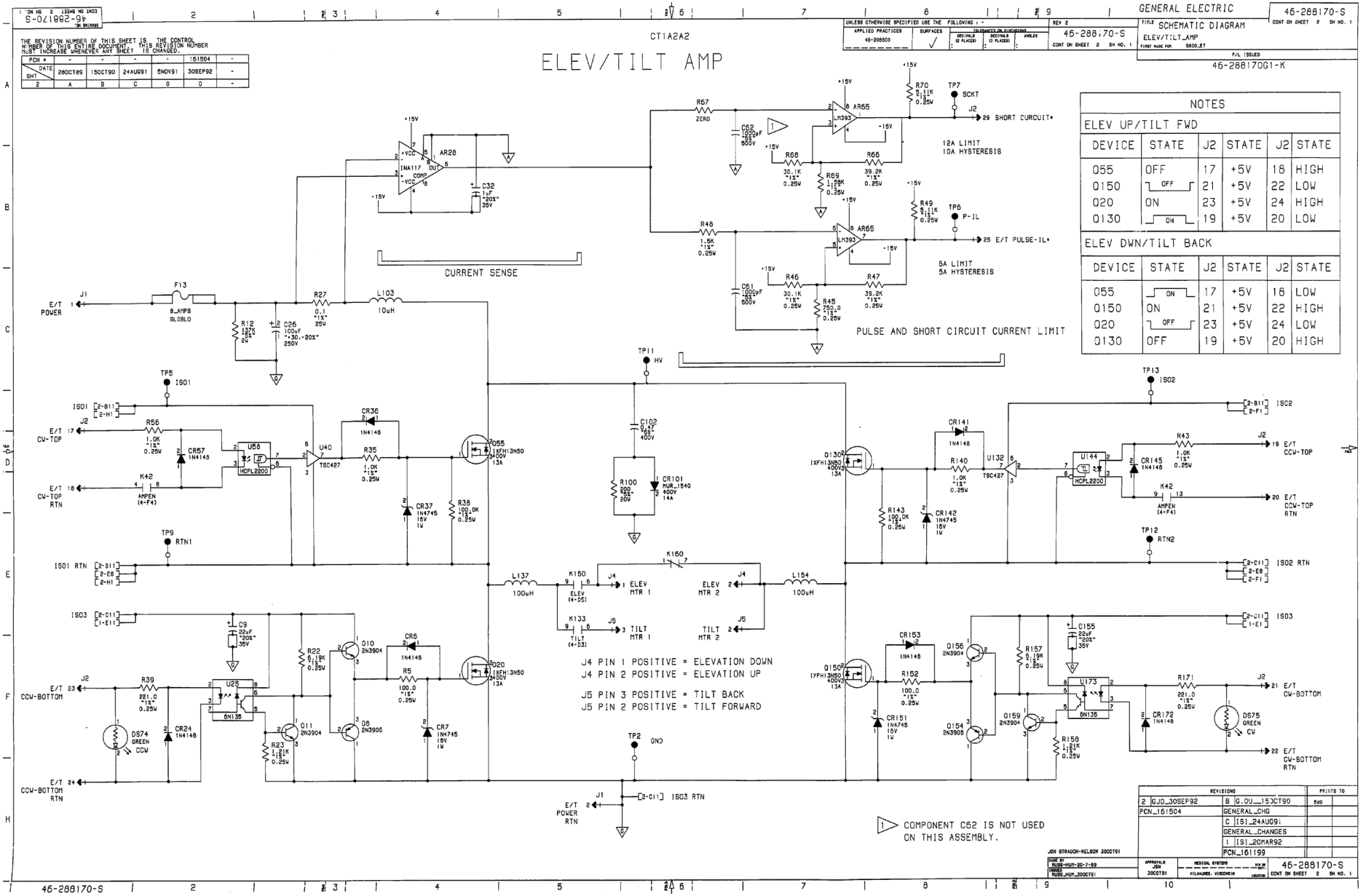


Figure 1-29 46-288170, Sheet 1, Rev. 2

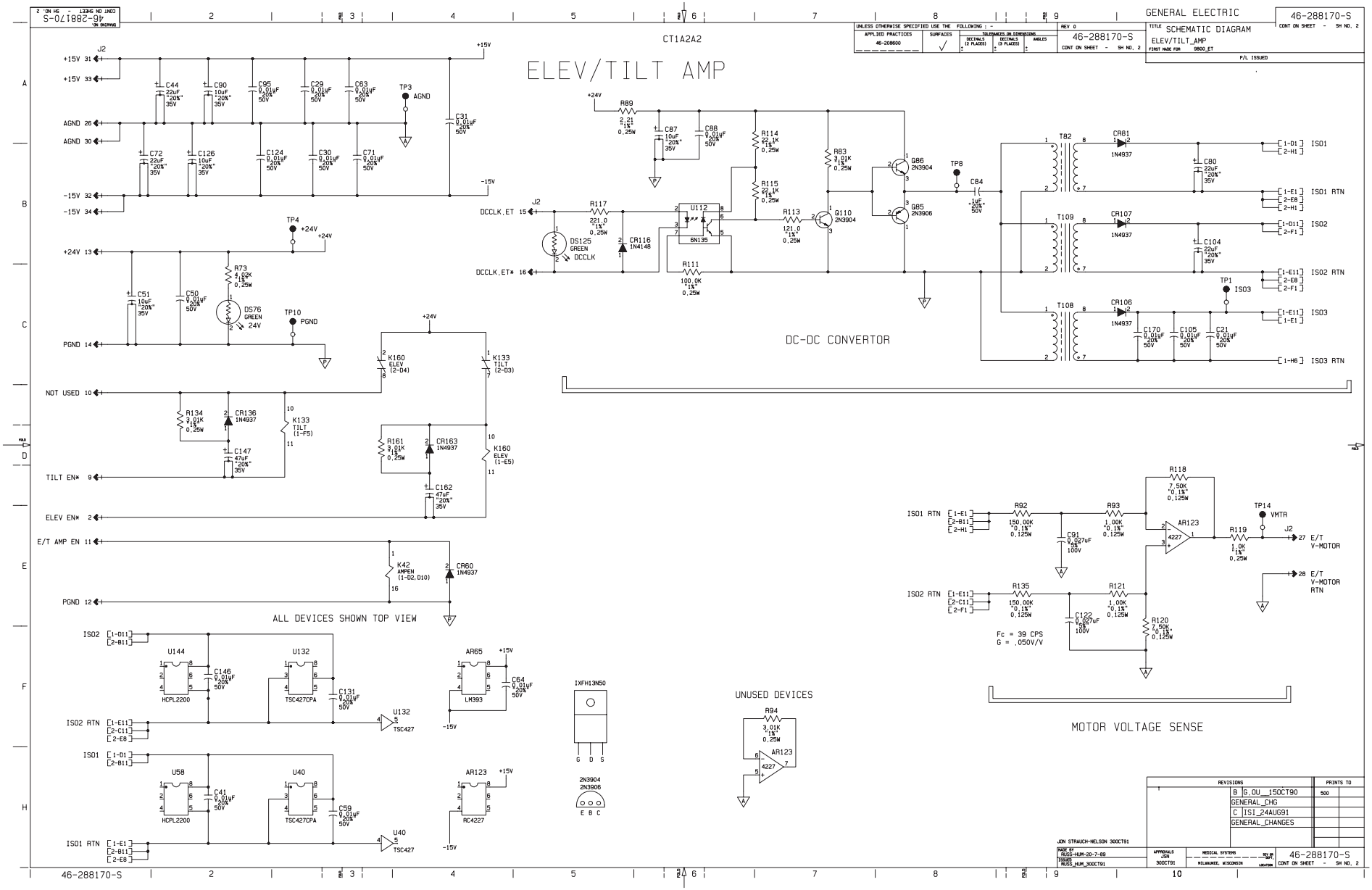


Figure 1-30 46-288170, Sheet 2, Rev. 0

Section 6.0 — ETC IF - 2229871

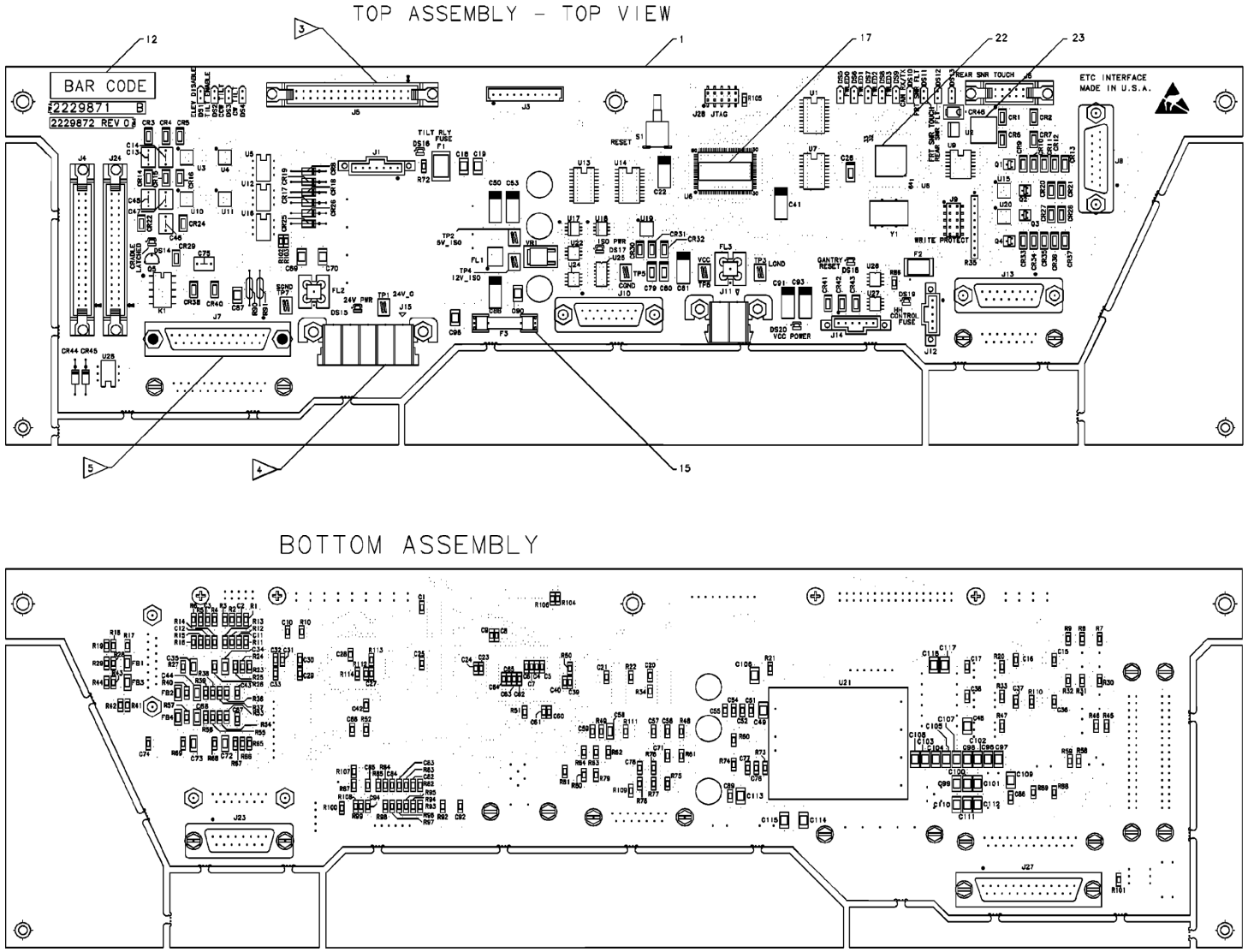
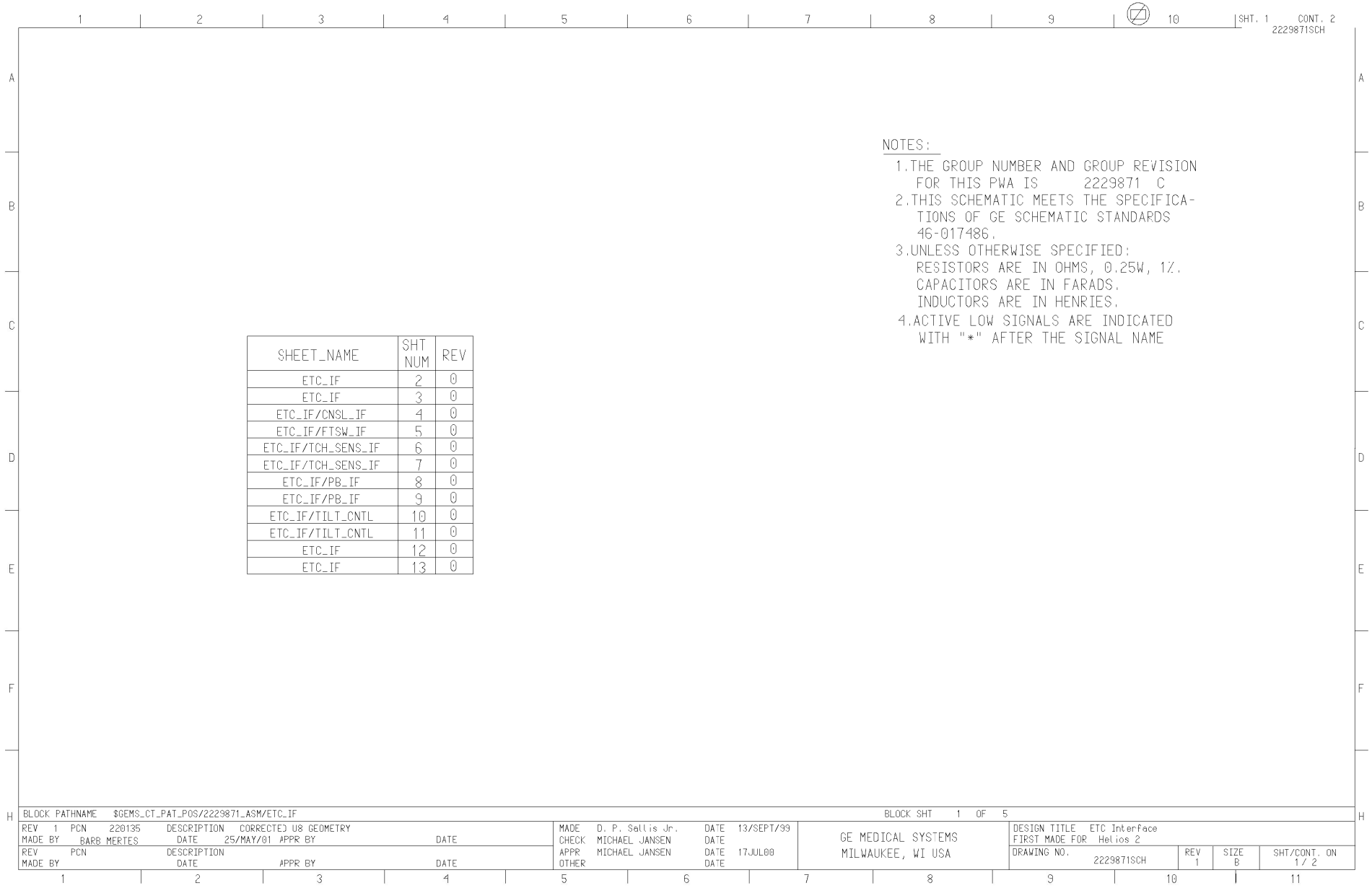


Figure 1-31 ETC IF Board Layout, Rev 1



SHEET_NAME	SHT NUM	REV
ETC_IF	2	0
ETC_IF	3	0
ETC_IF/CNSL_IF	4	0
ETC_IF/FTSW_IF	5	0
ETC_IF/TCH_SENS_IF	6	0
ETC_IF/TCH_SENS_IF	7	0
ETC_IF/PB_IF	8	0
ETC_IF/PB_IF	9	0
ETC_IF/TILT_CNTL	10	0
ETC_IF/TILT_CNTL	11	0
ETC_IF	12	0
ETC_IF	13	0

Figure 1-32 2229871, Sheet 1, Rev 0

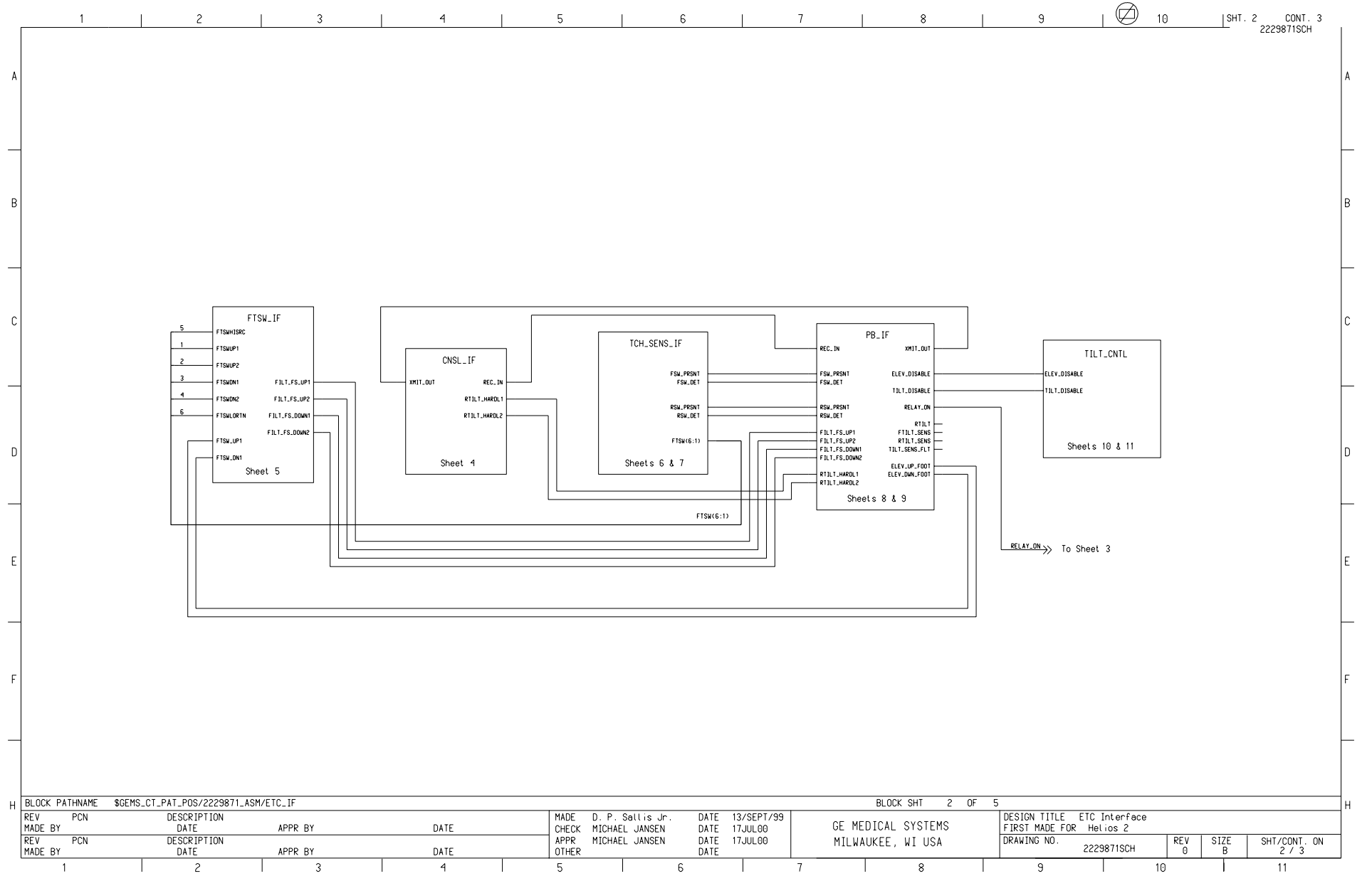


Figure 1-33 2229871, Sheet 2, Rev 0

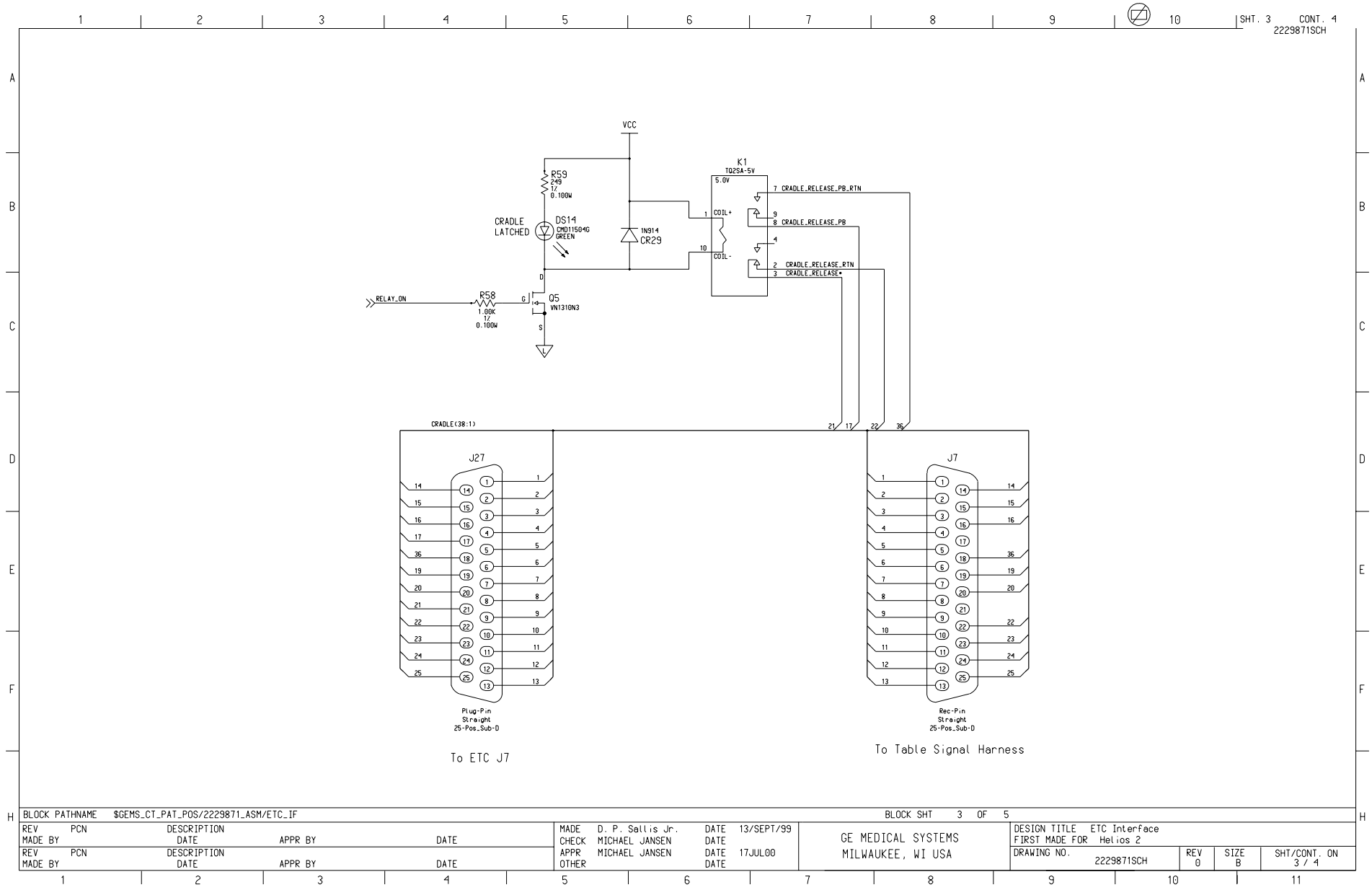


Figure 1-34 2229871, Sheet 3, Rev 0

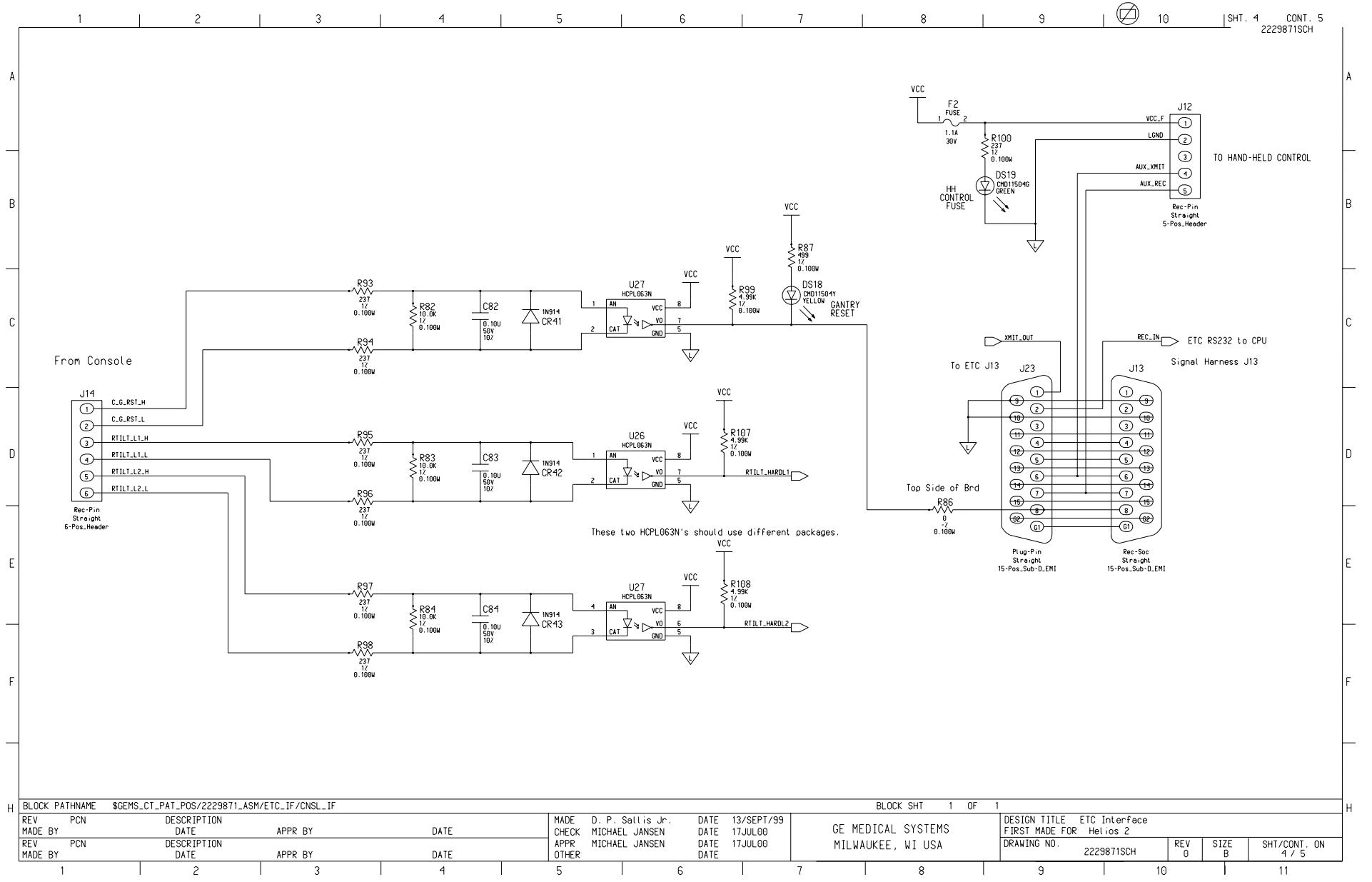


Figure 1-35 2229871, Sheet 4, Rev 0

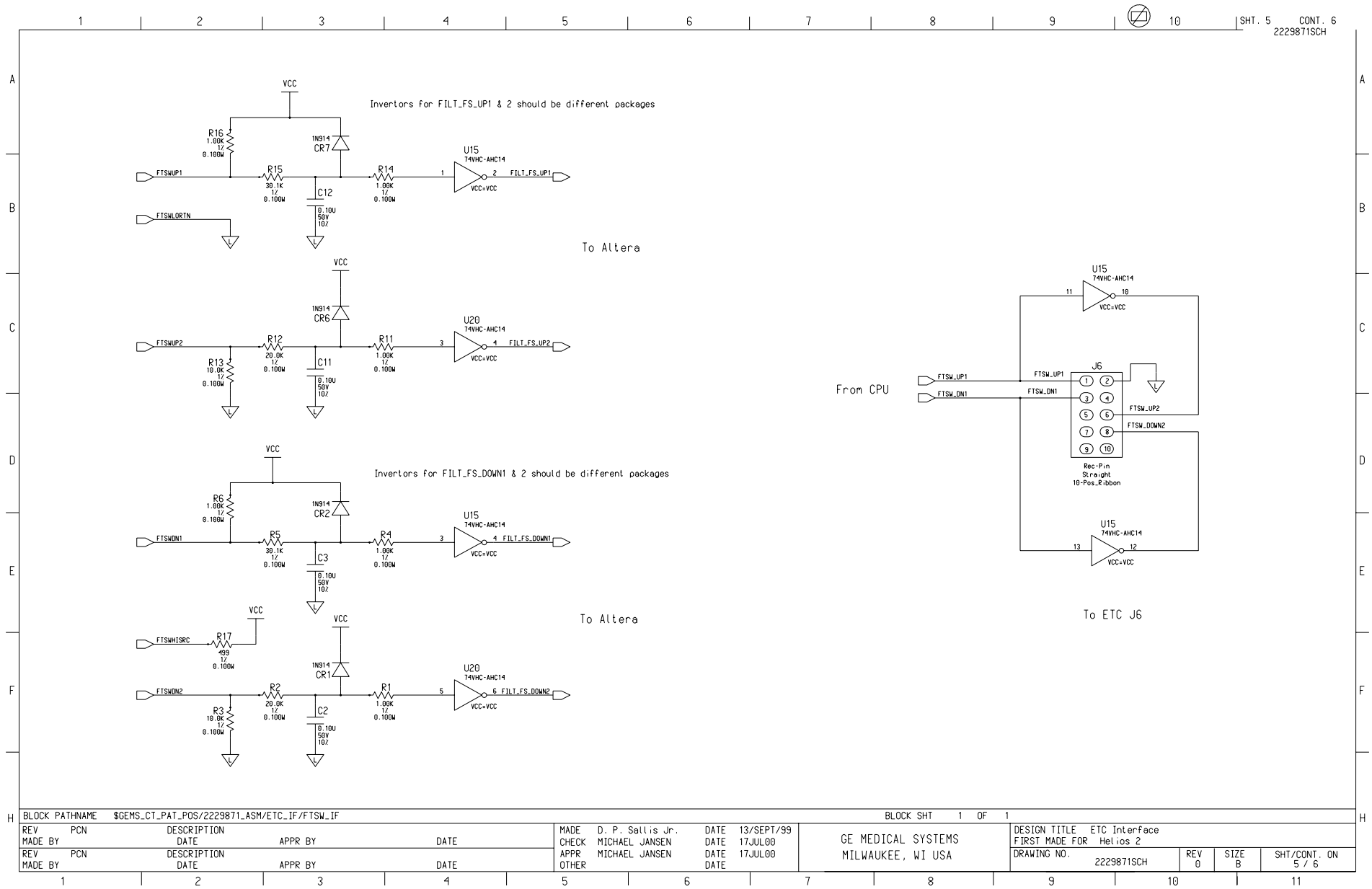


Figure 1-36 2229871, Sheet 5, Rev 0

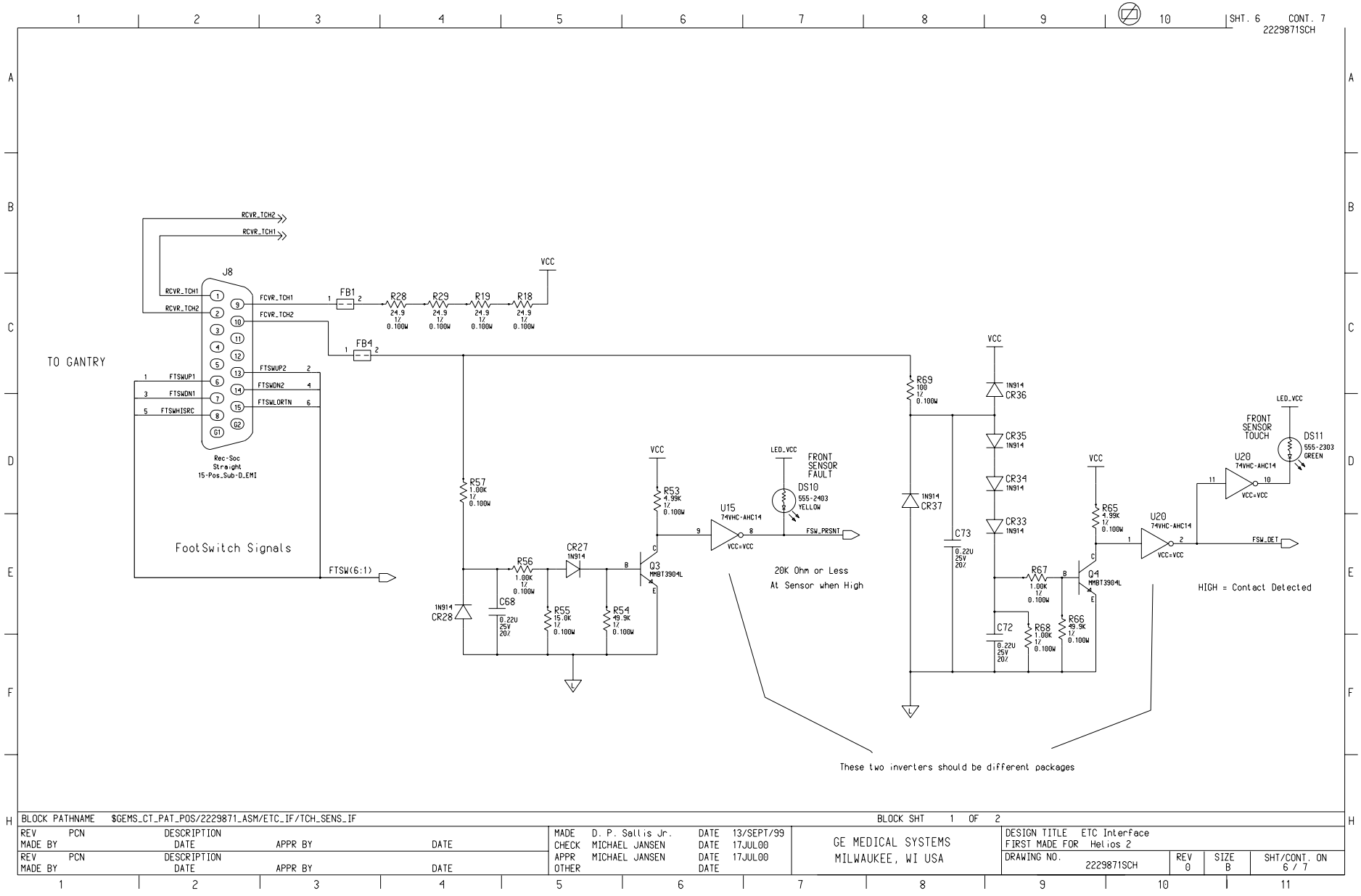


Figure 1-37 2229871, Sheet 6, Rev 0

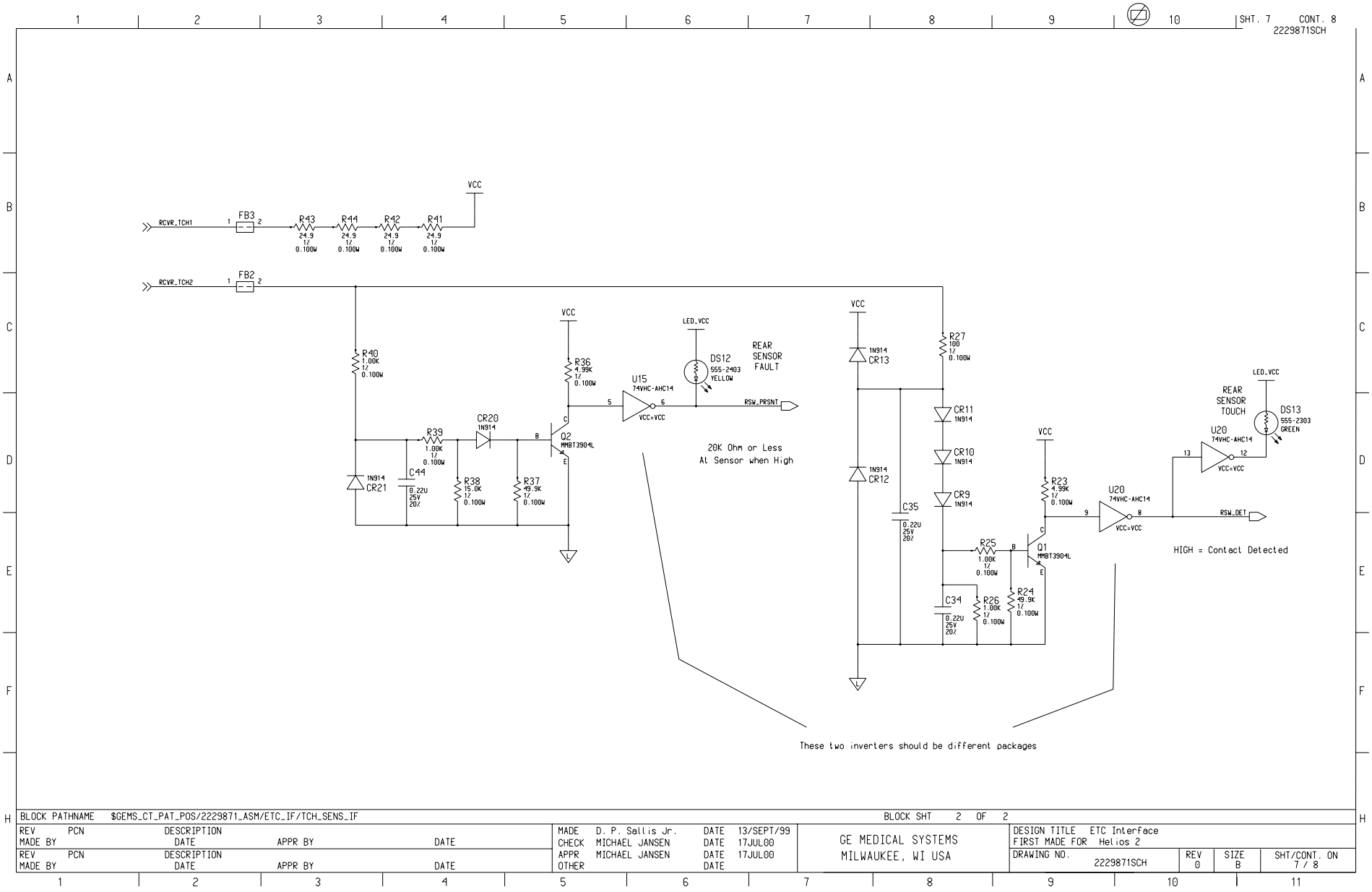


Figure 1-38 2229871, Sheet 7, Rev 0

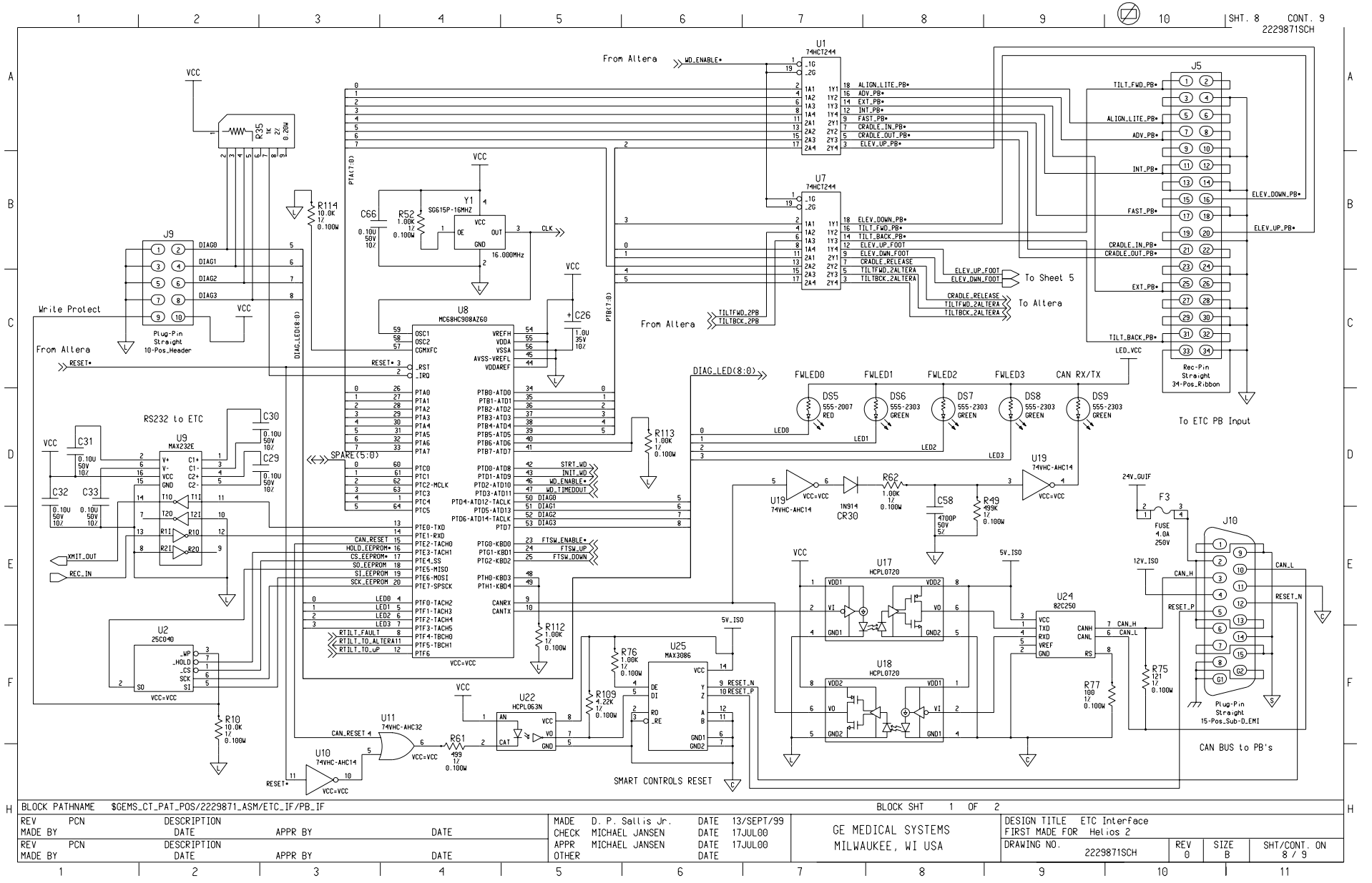


Figure 1-39 2229871, Sheet 8, Rev 0

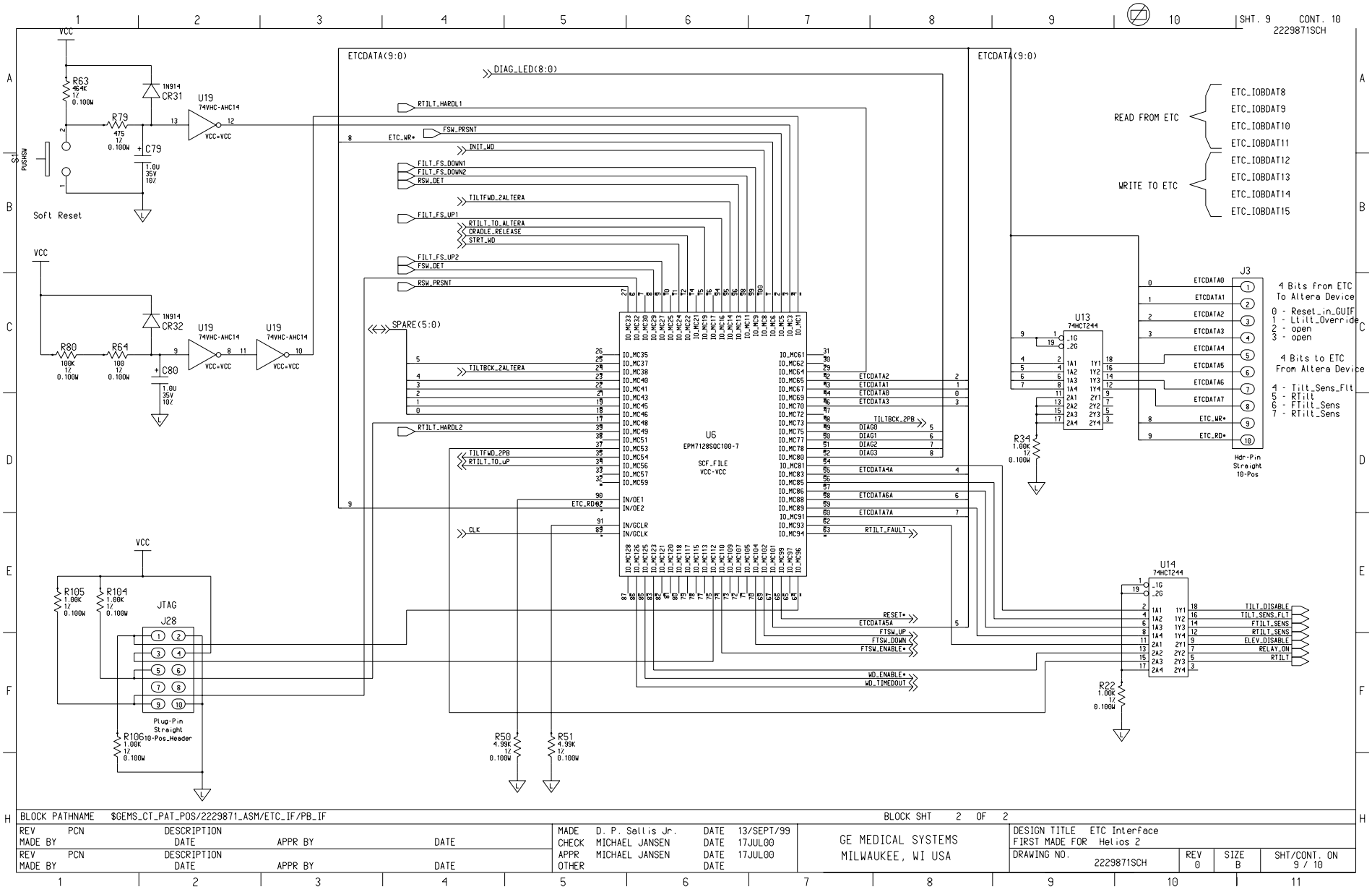


Figure 1-40 2229871, Sheet 9, Rev 0

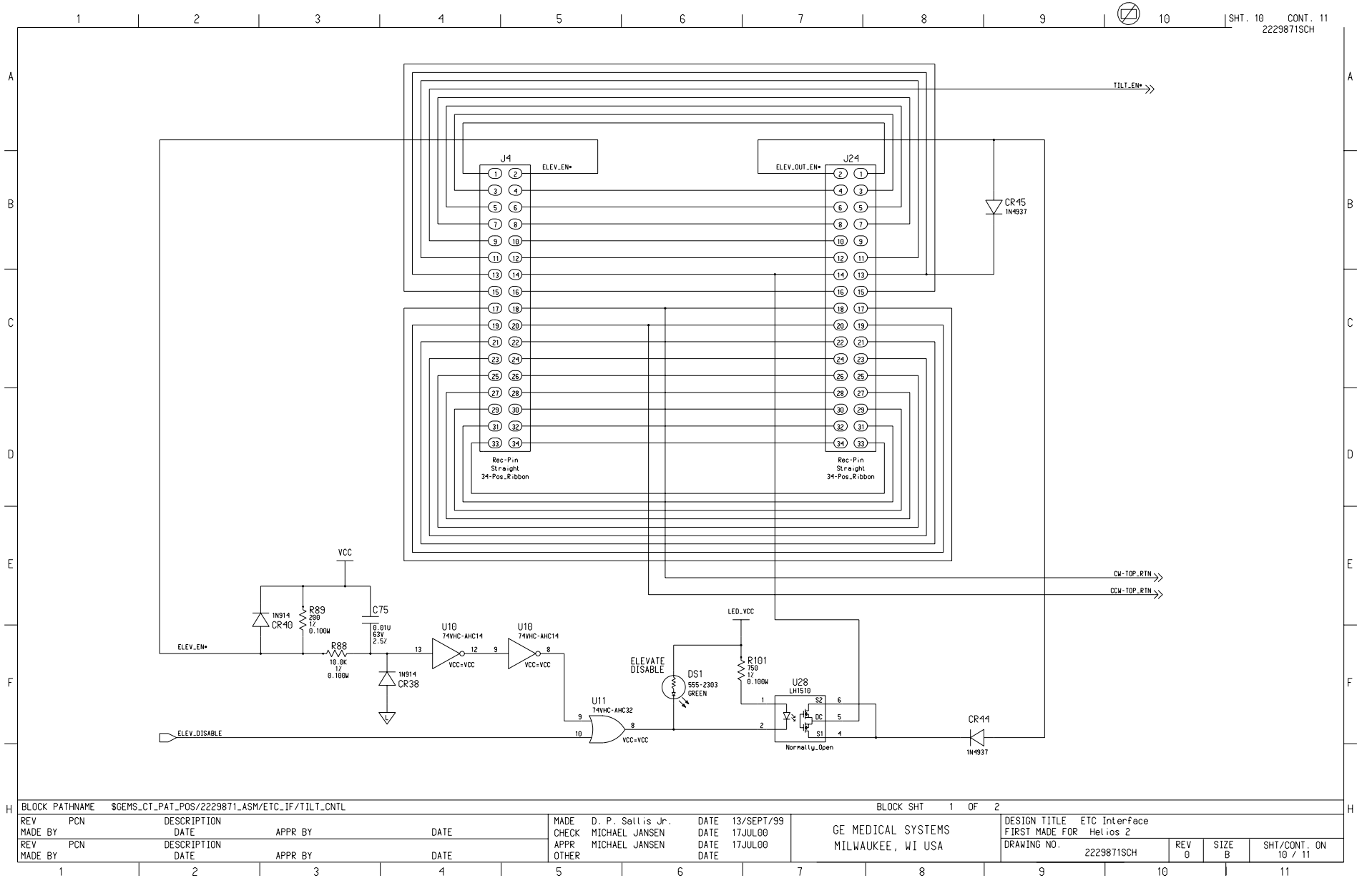


Figure 1-41 2229871, Sheet 10, Rev 0

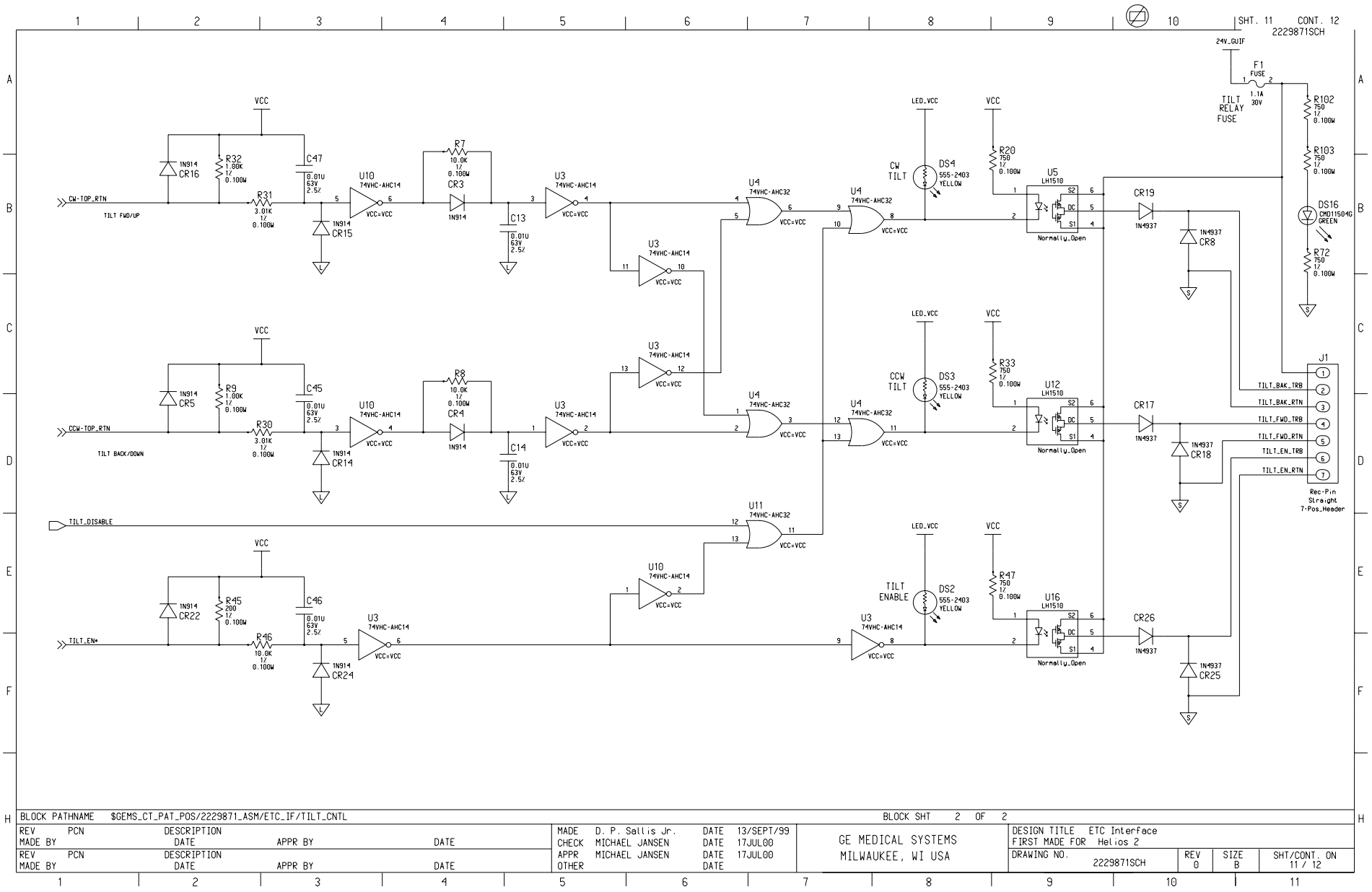


Figure 1-42 2229871, Sheet 11, Rev 0

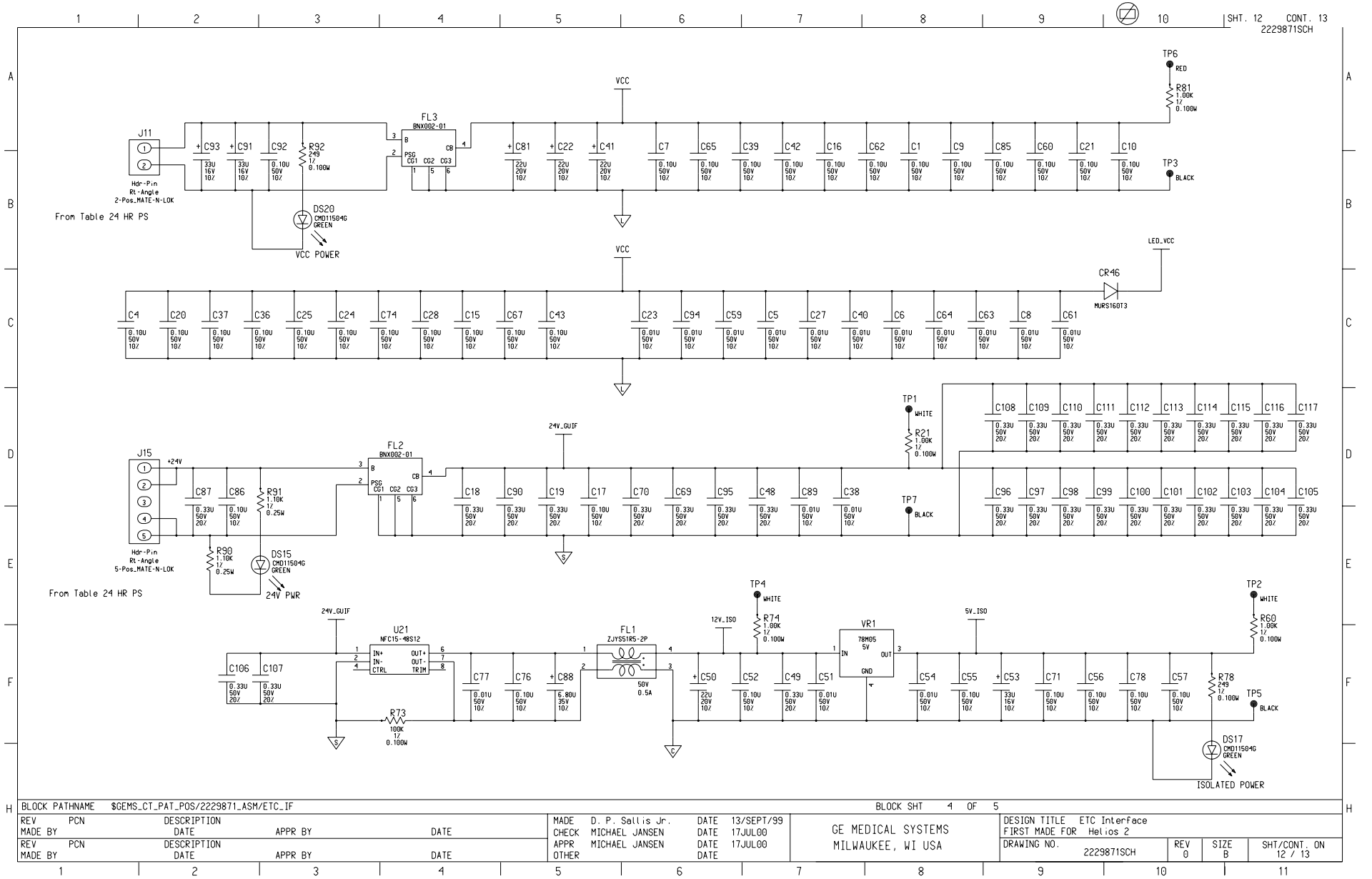


Figure 1-43 2229871, Sheet 12, Rev 0

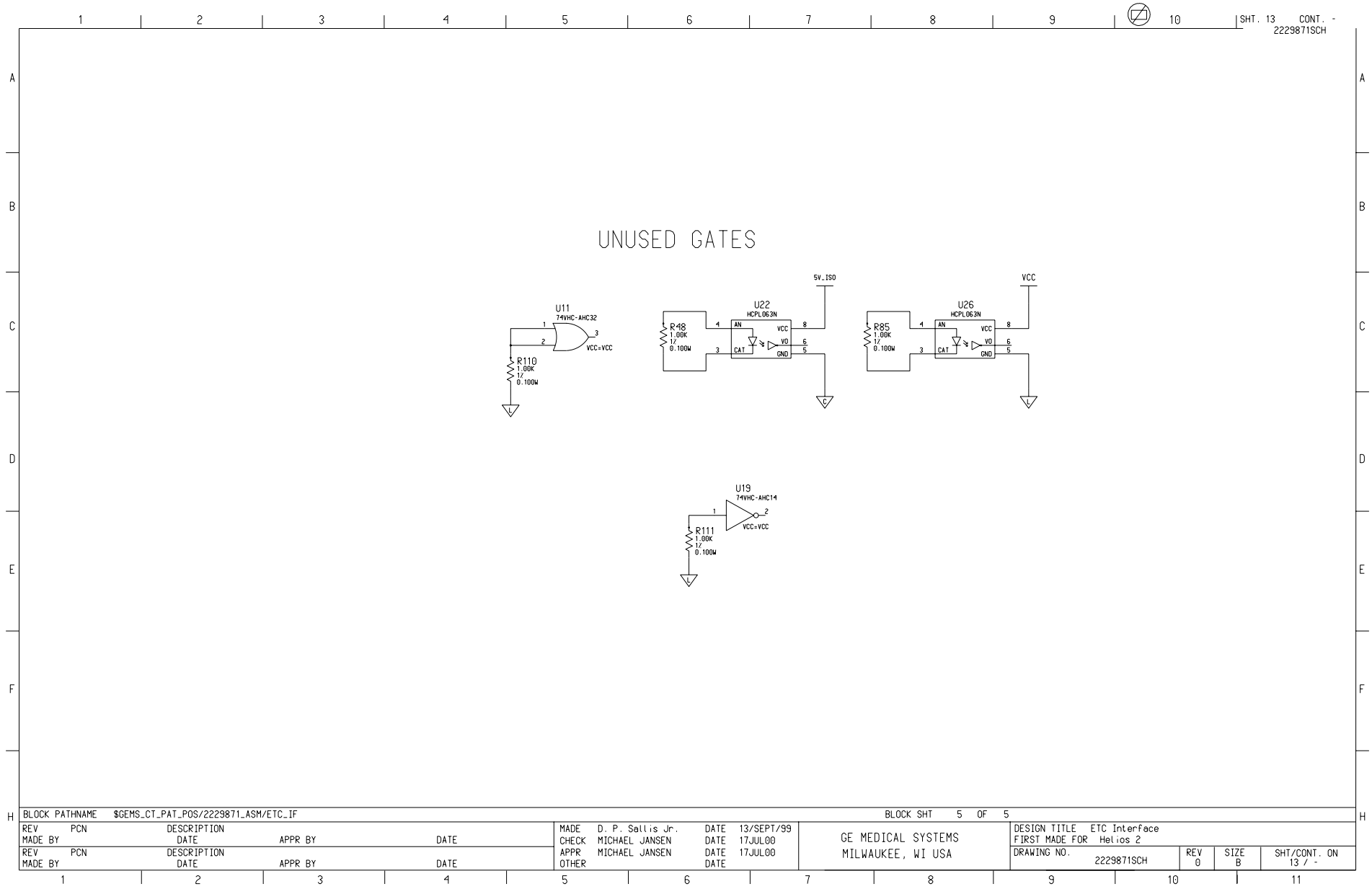


Figure 1-44 2229871, Sheet 13, Rev 0

Section 7.0 — Gantry Options Board - 2280889

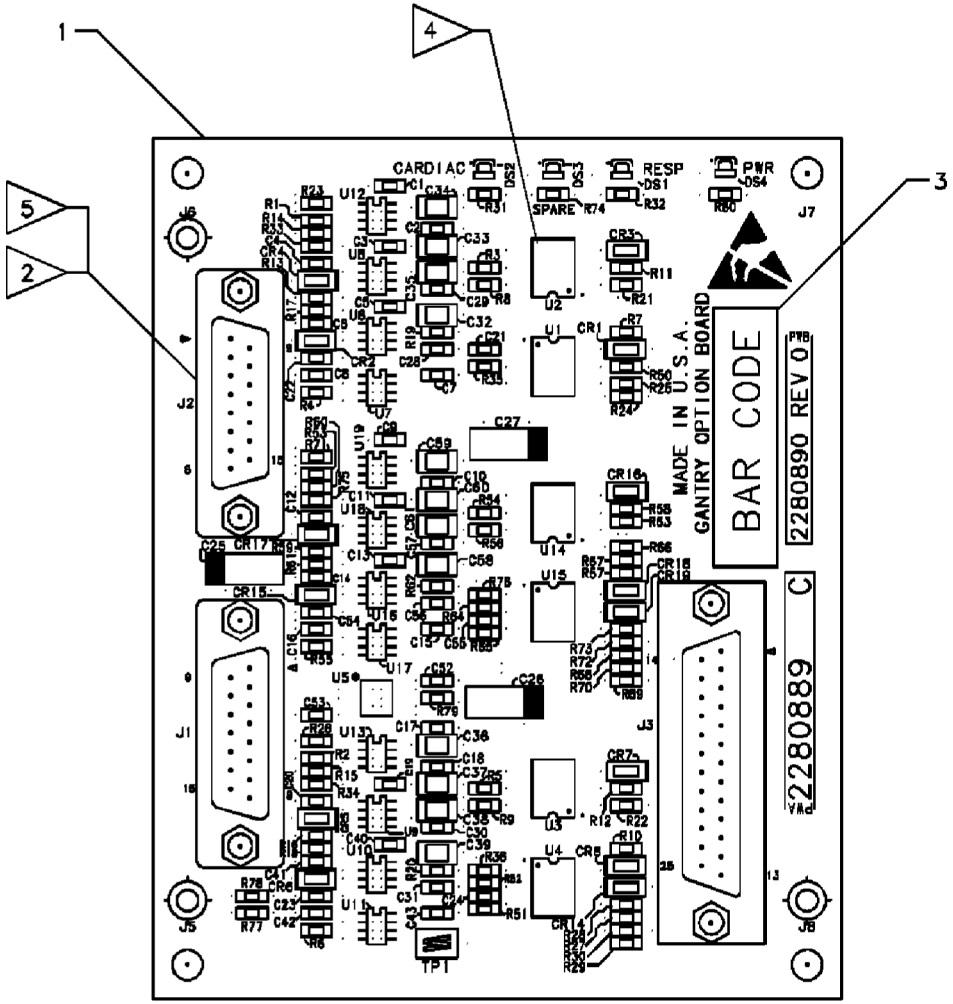
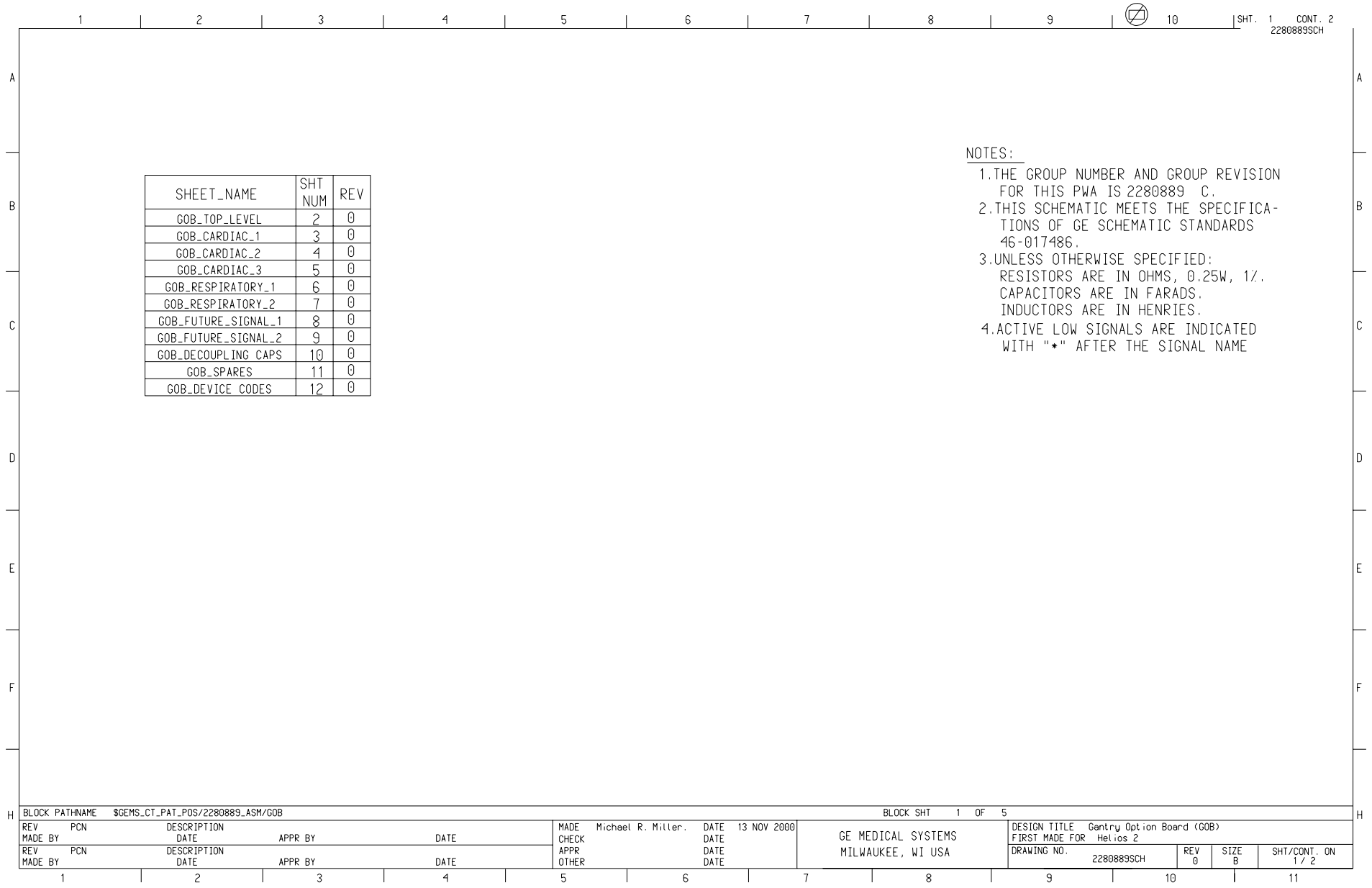


Figure 1-45 Gantry Options Board Layout, Rev 0



SHEET_NAME	SHT NUM	REV
GOB_TOP_LEVEL	2	0
GOB_CARDIAC_1	3	0
GOB_CARDIAC_2	4	0
GOB_CARDIAC_3	5	0
GOB_RESPIRATORY_1	6	0
GOB_RESPIRATORY_2	7	0
GOB_FUTURE_SIGNAL_1	8	0
GOB_FUTURE_SIGNAL_2	9	0
GOB_DECOUPLING CAPS	10	0
GOB_SPARES	11	0
GOB_DEVICE CODES	12	0

Figure 1-46 2280889, Sheet 1, Rev 0

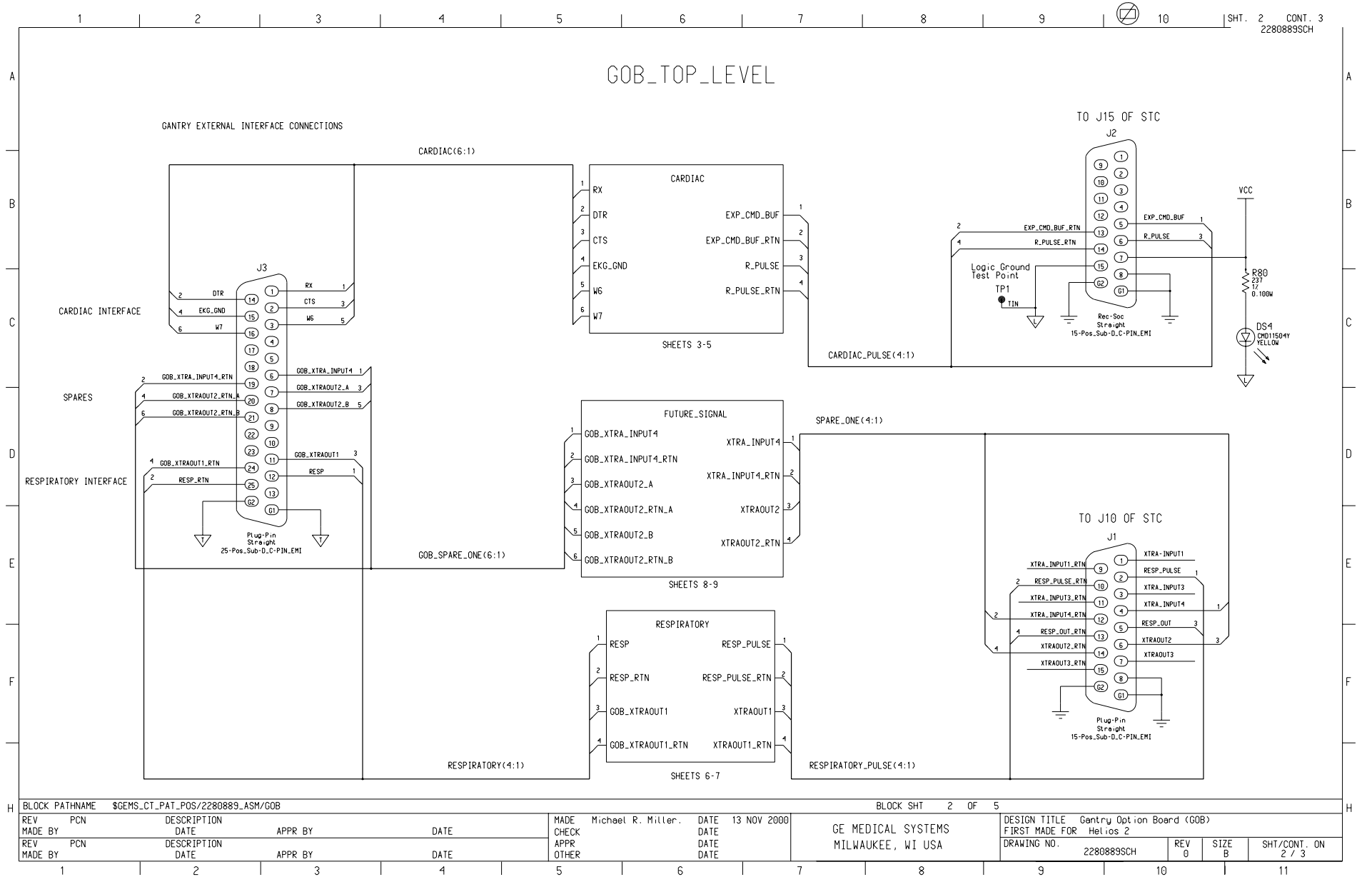


Figure 1-47 2280889, Sheet 2, Rev 0

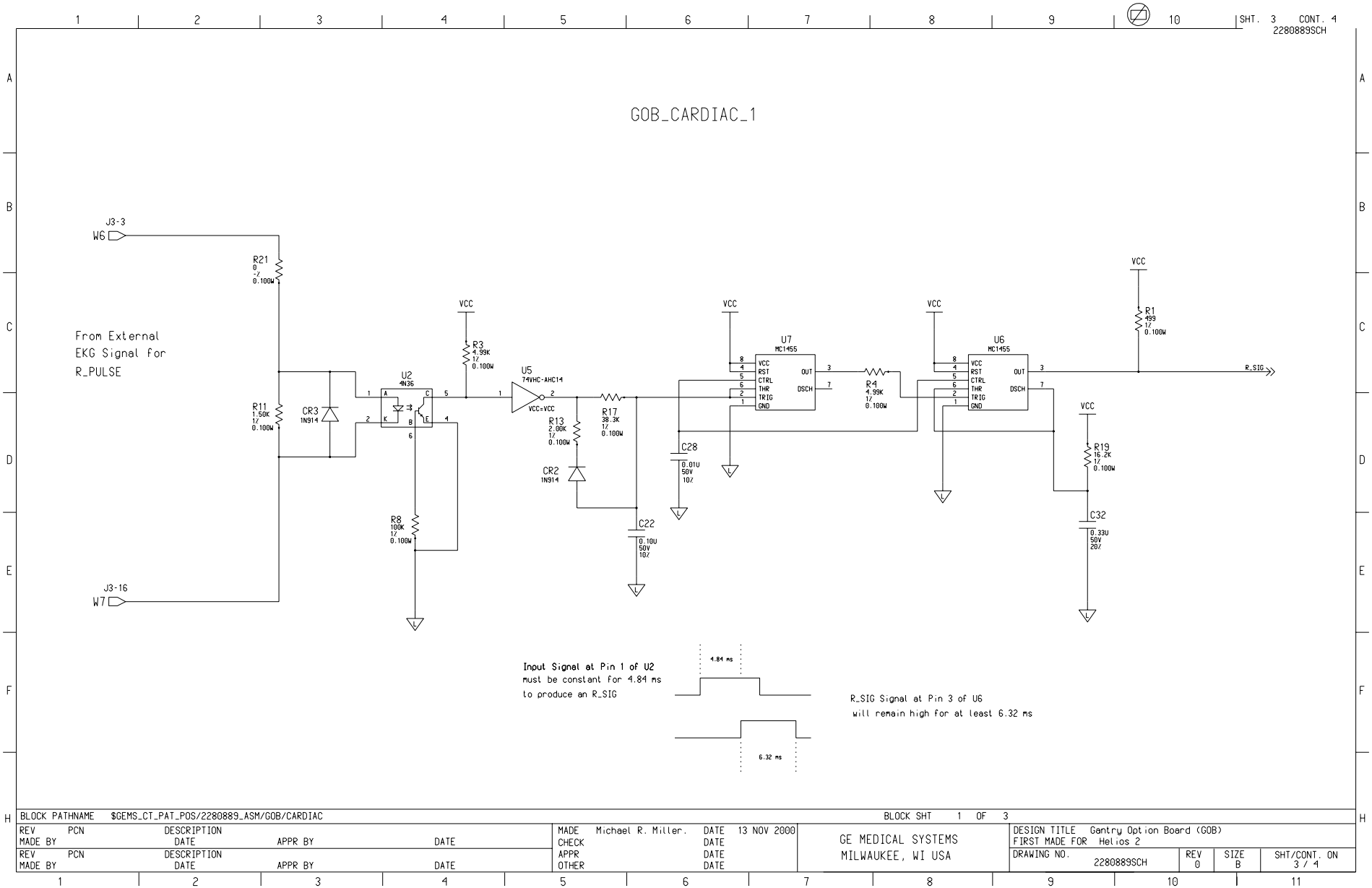


Figure 1-48 2280889, Sheet 3, Rev 0

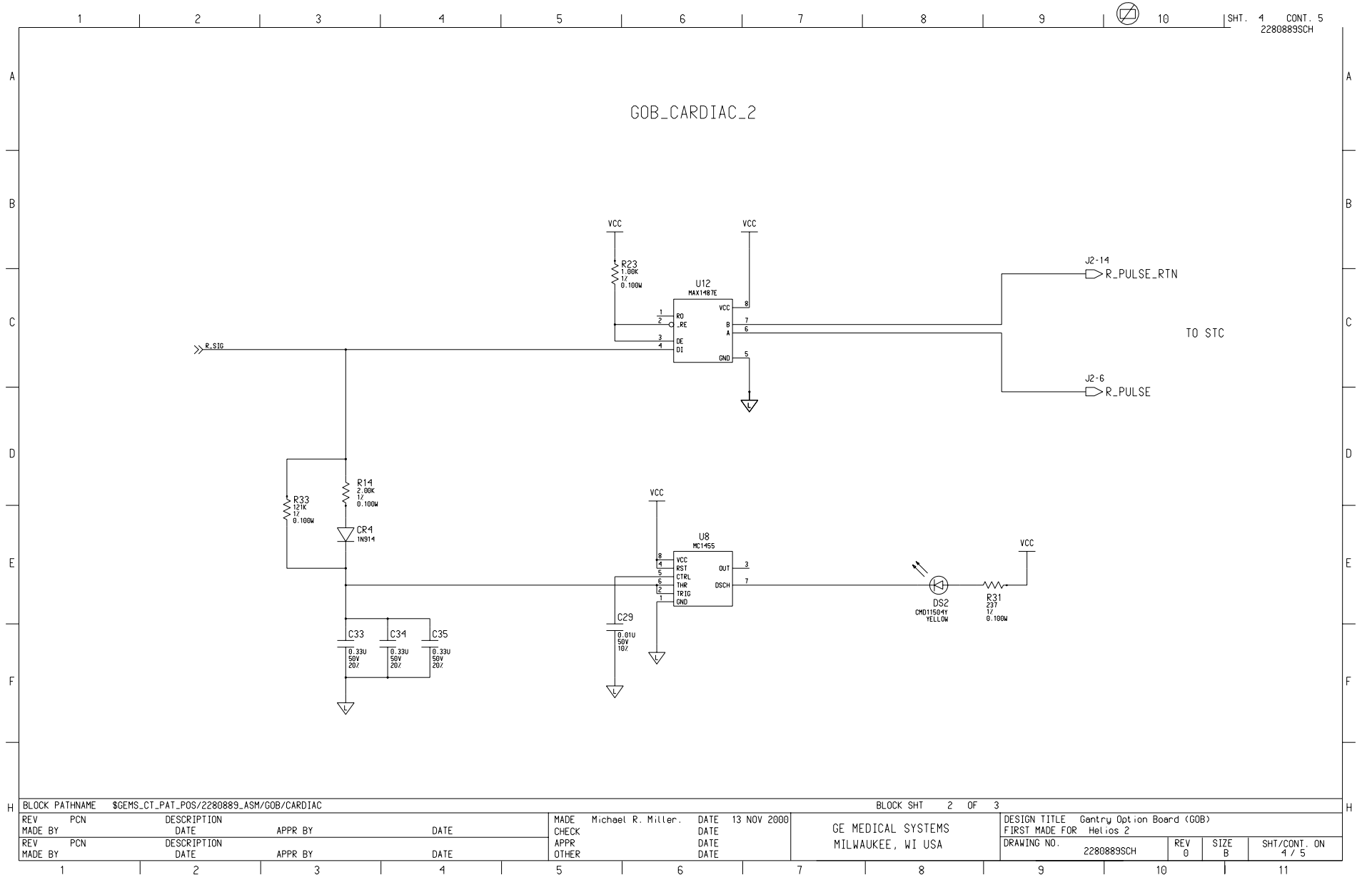


Figure 1-49 2280889, Sheet 4, Rev 0

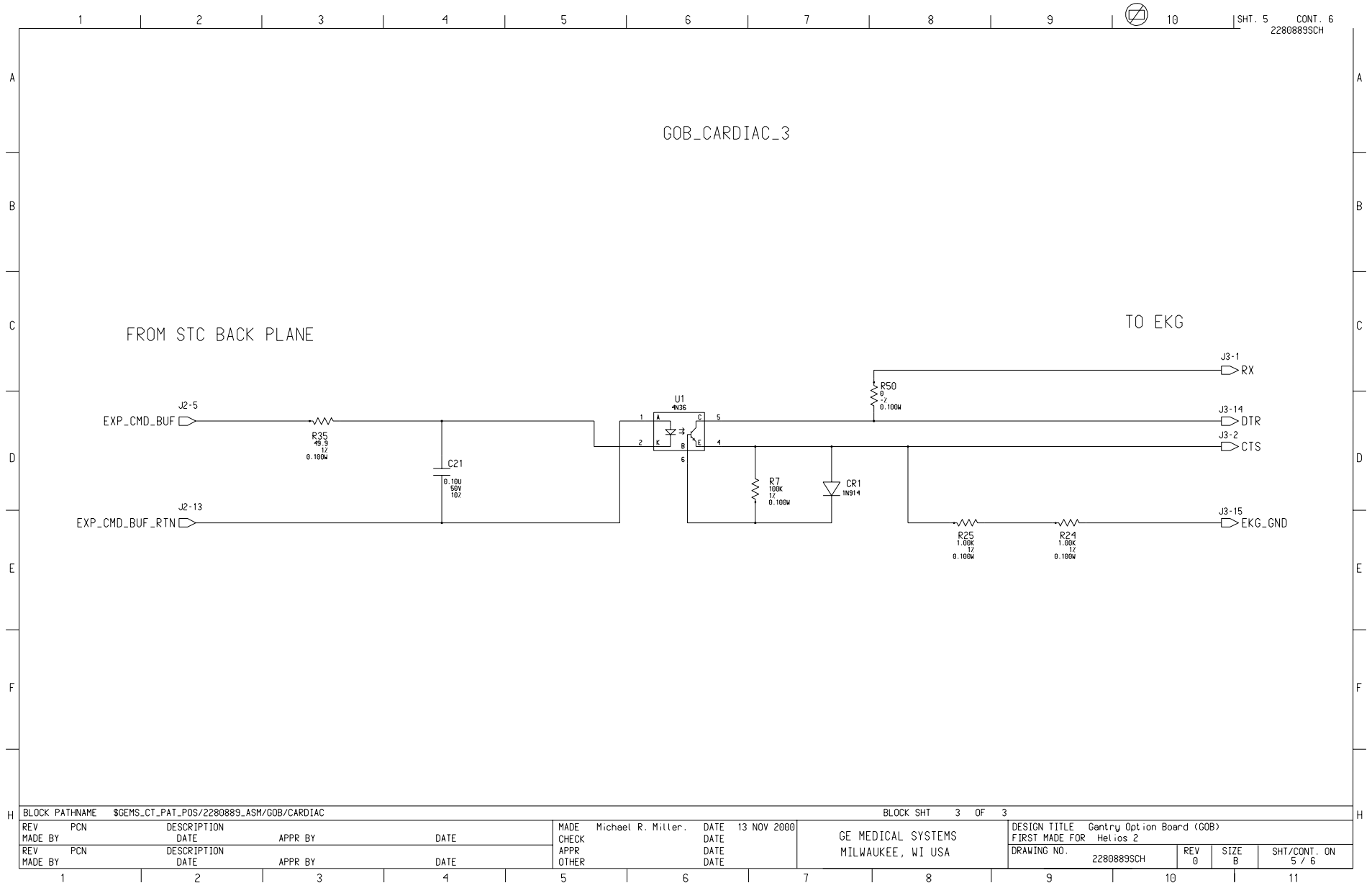


Figure 1-50 2280889, Sheet 5, Rev 0

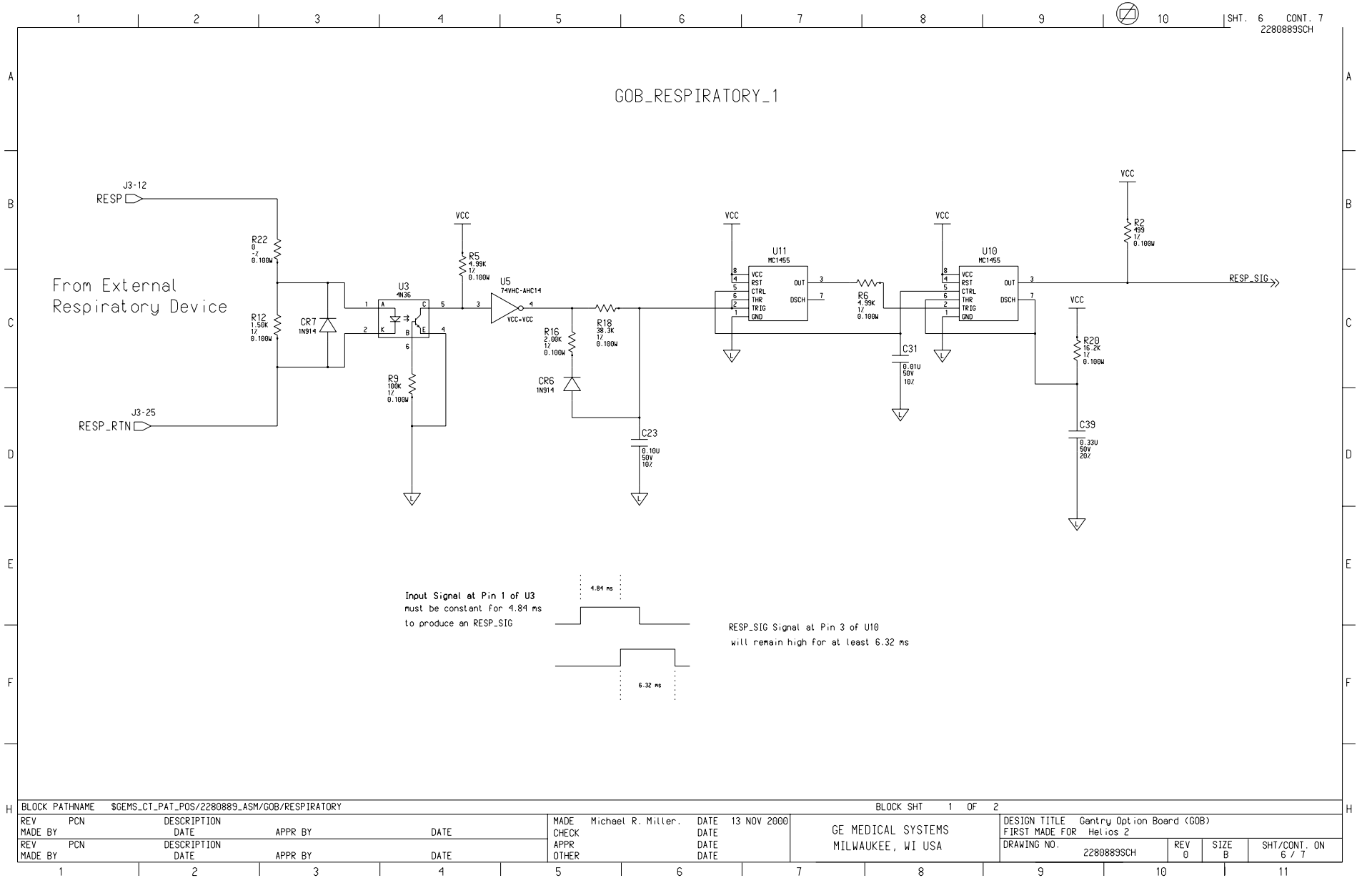


Figure 1-51 2280889, Sheet 6, Rev 0

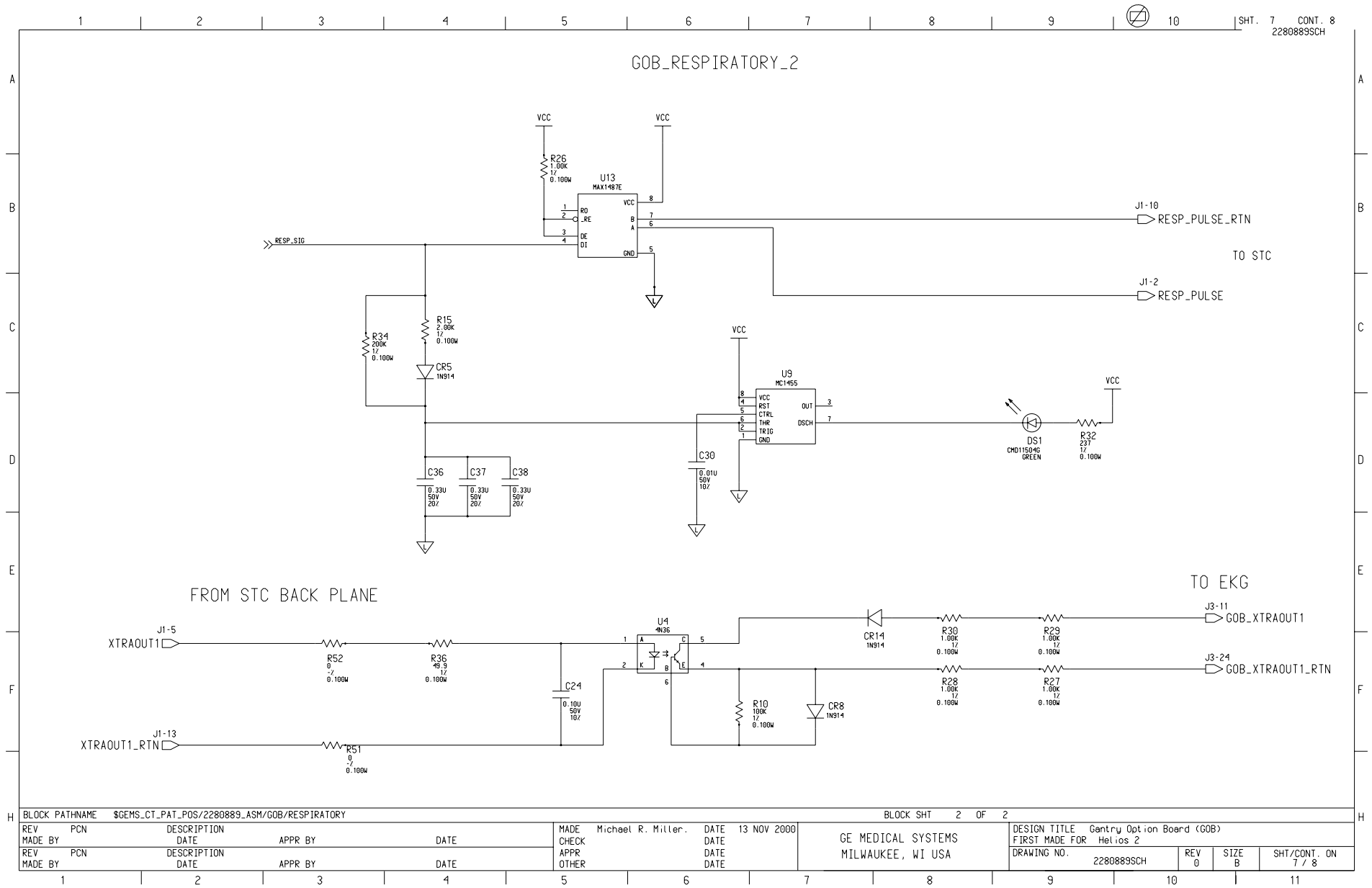


Figure 1-52 2280889, Sheet 7, Rev 0

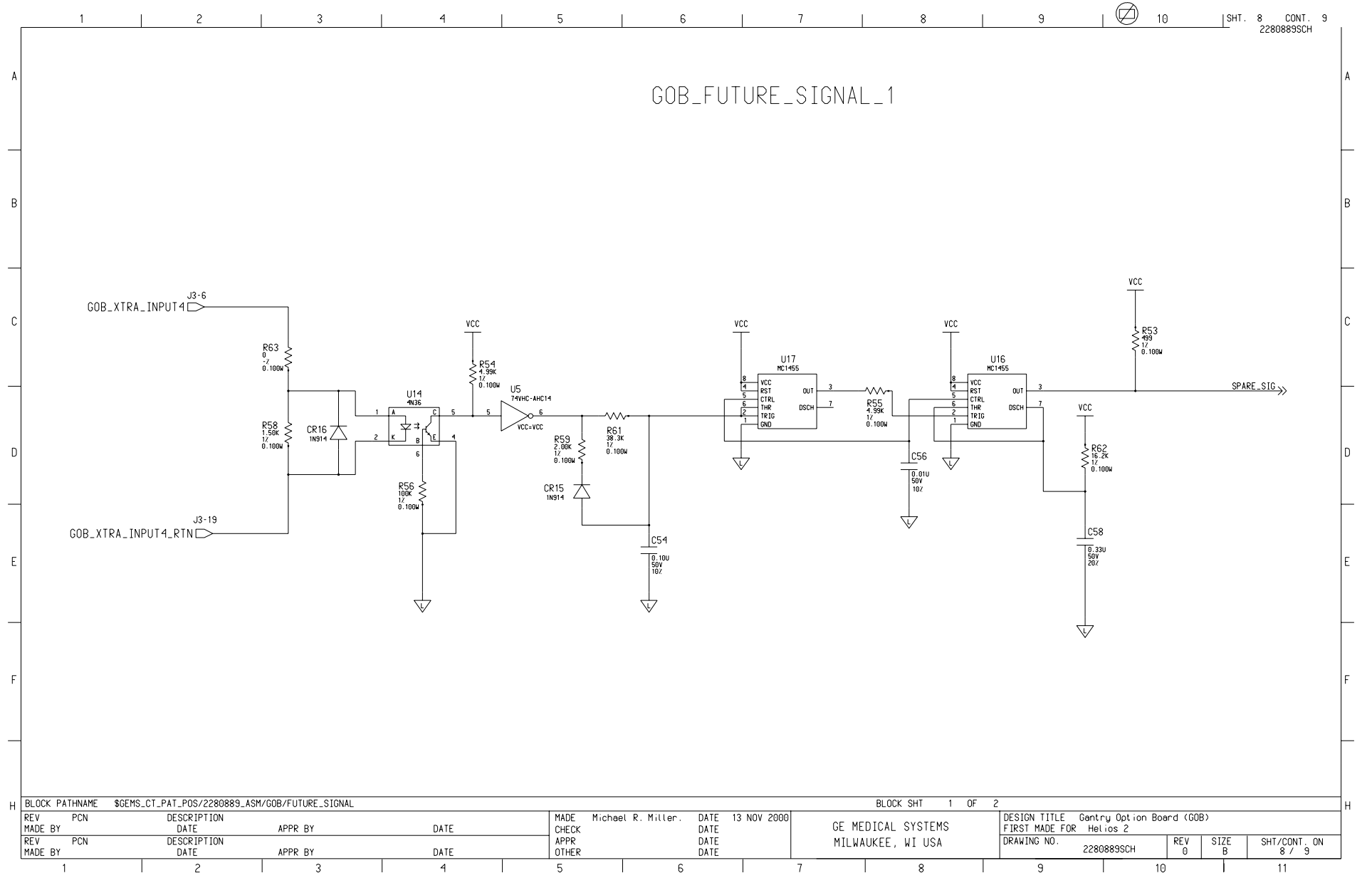


Figure 1-53 2280889, Sheet 8, Rev 0

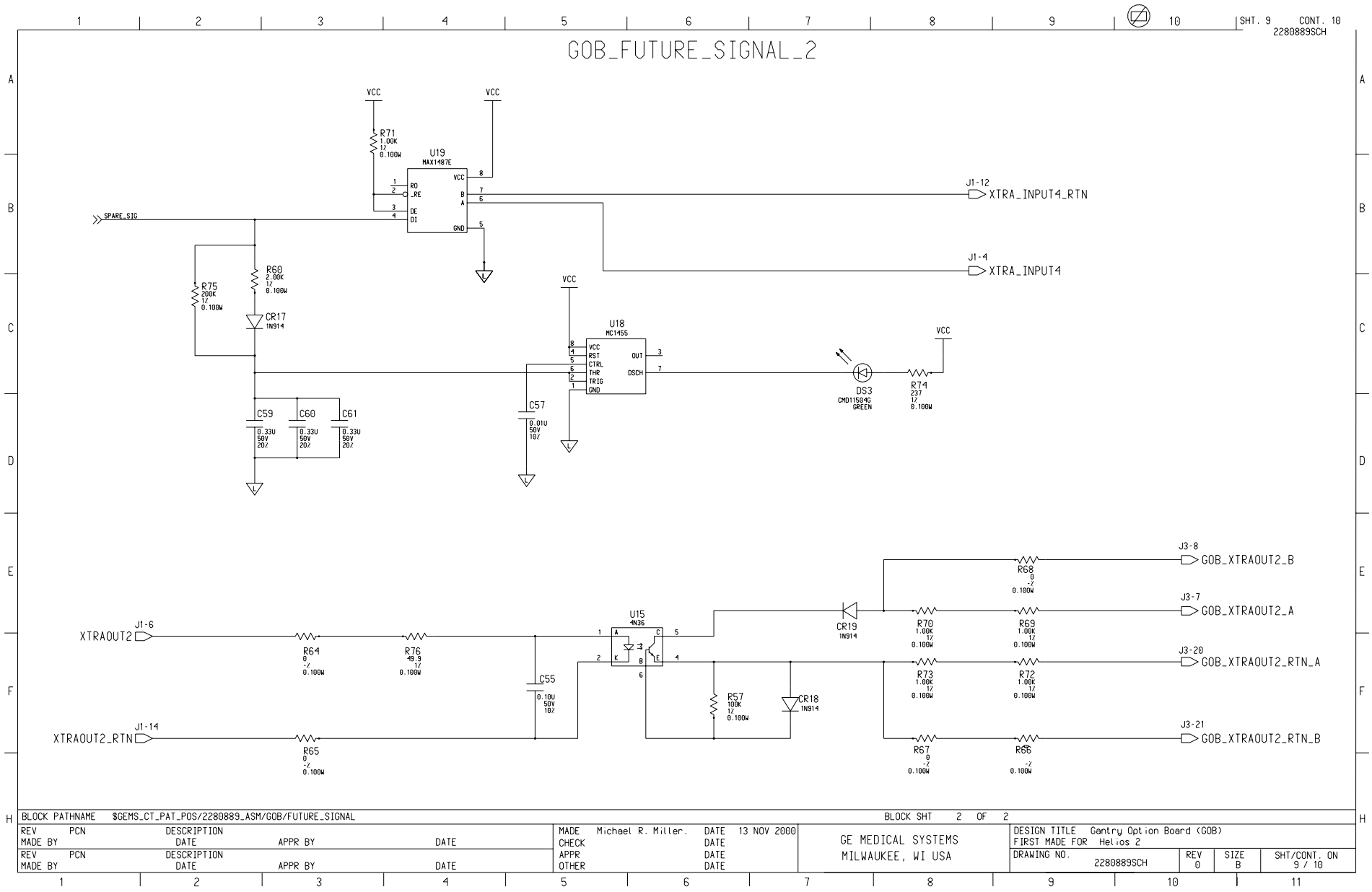


Figure 1-54 2280889, Sheet 9, Rev 0

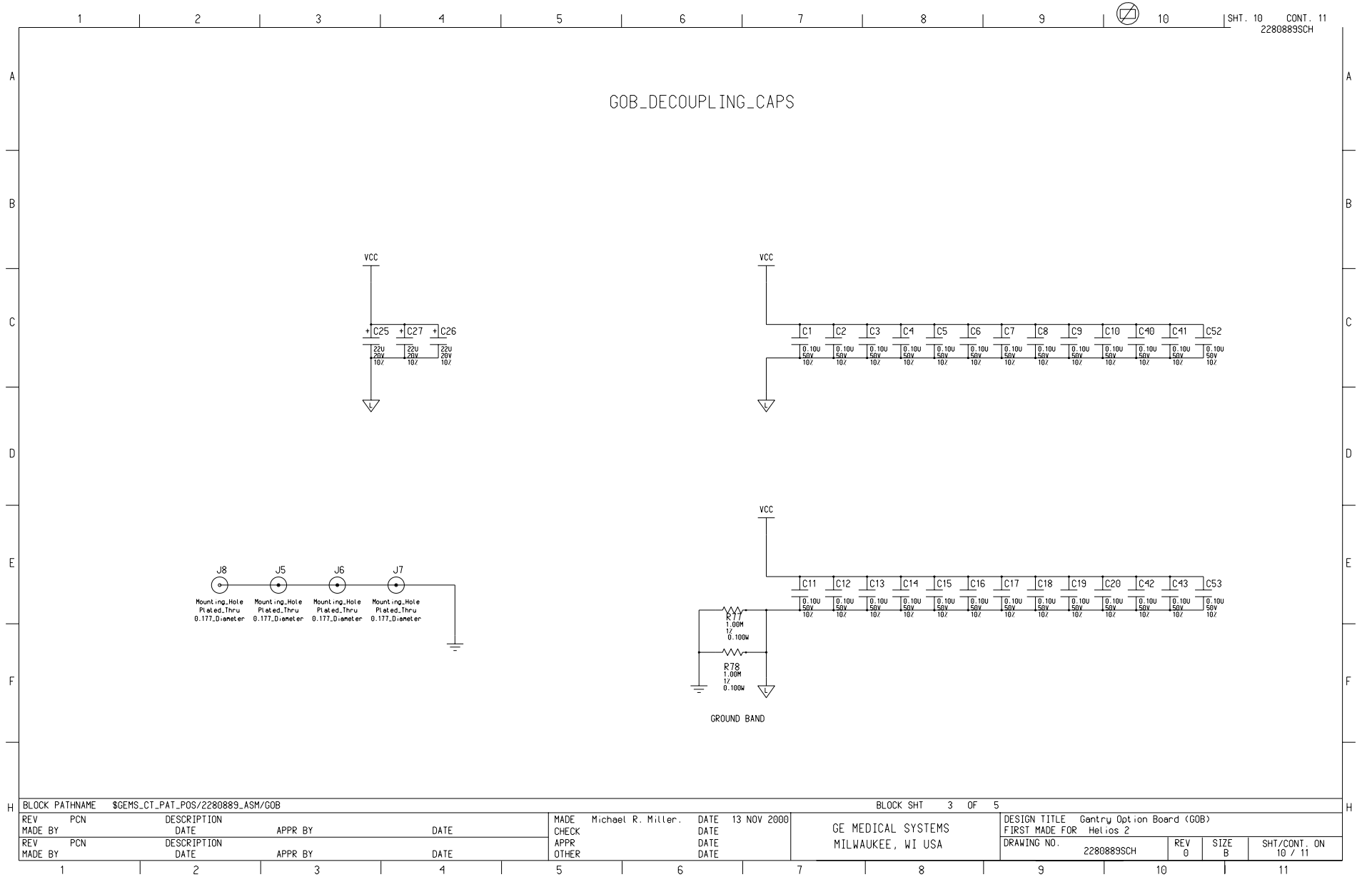


Figure 1-55 2280889, Sheet 10, Rev 0

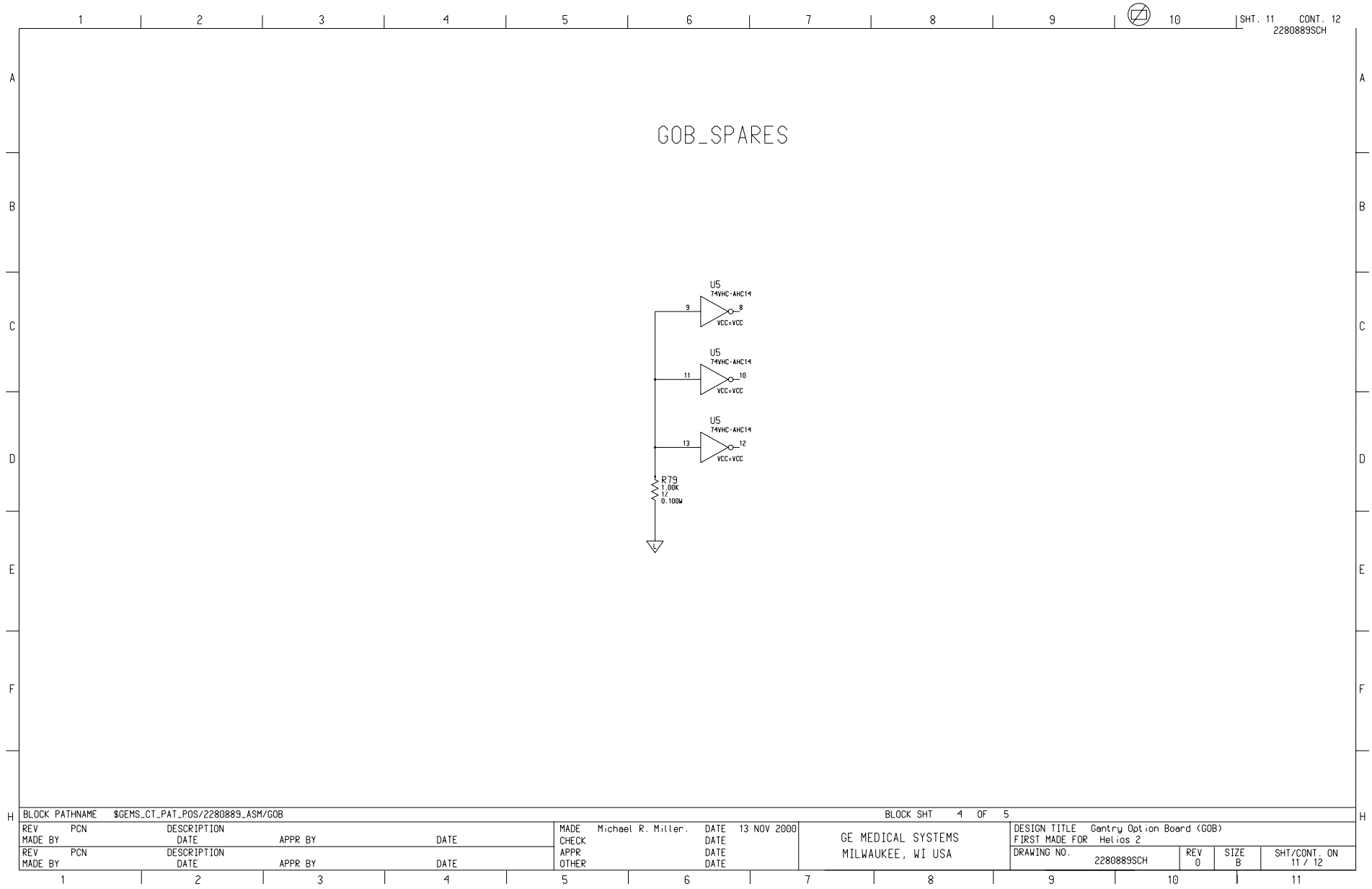


Figure 1-56 2280889, Sheet 11, Rev 0

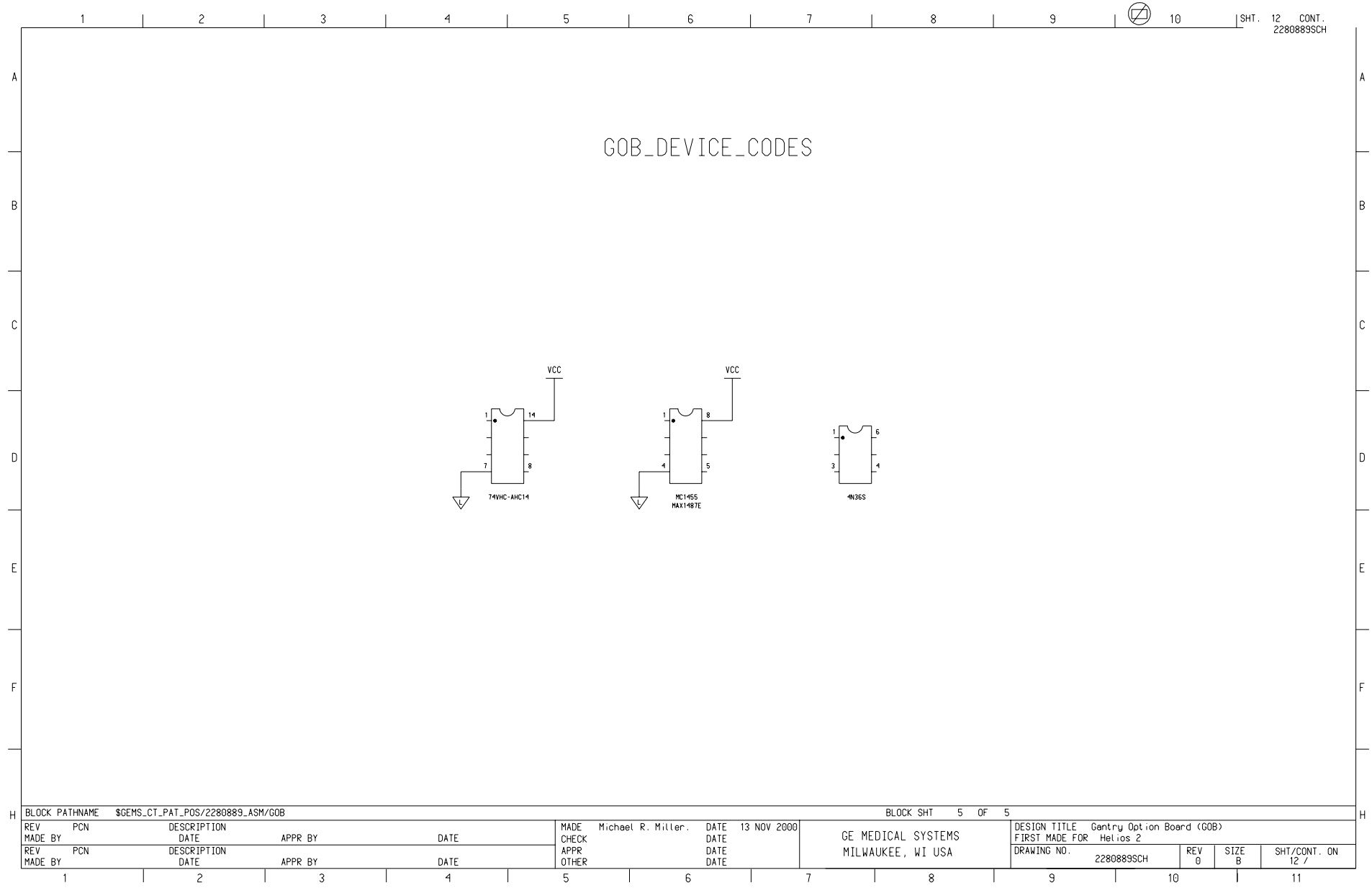


Figure 1-57 2280889, Sheet 12, Rev 0

Chapter 2
PDU

Section 1.0 — PDU - 2269902

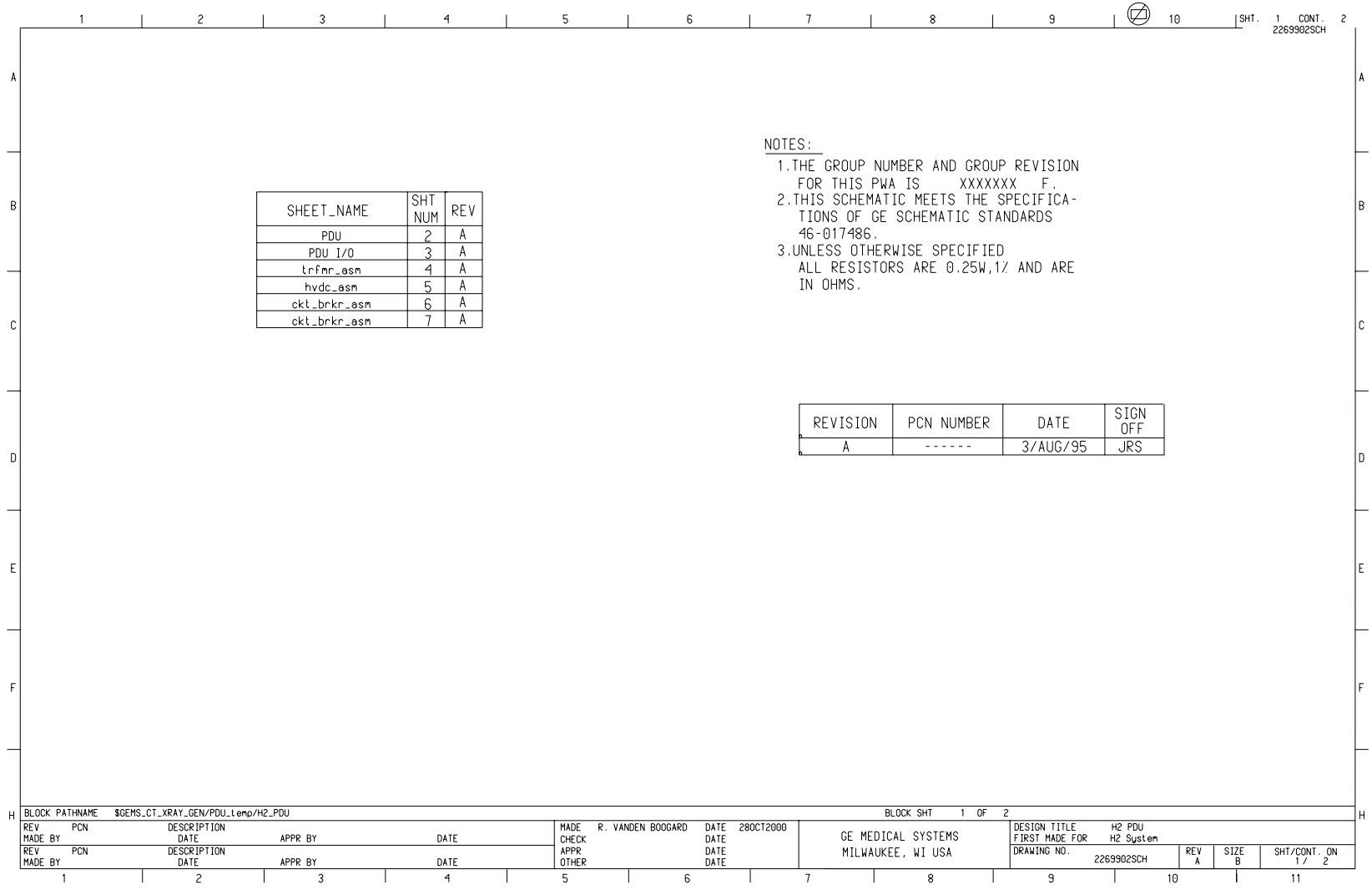


Figure 2-1 2269902, Sheet 1, Rev A

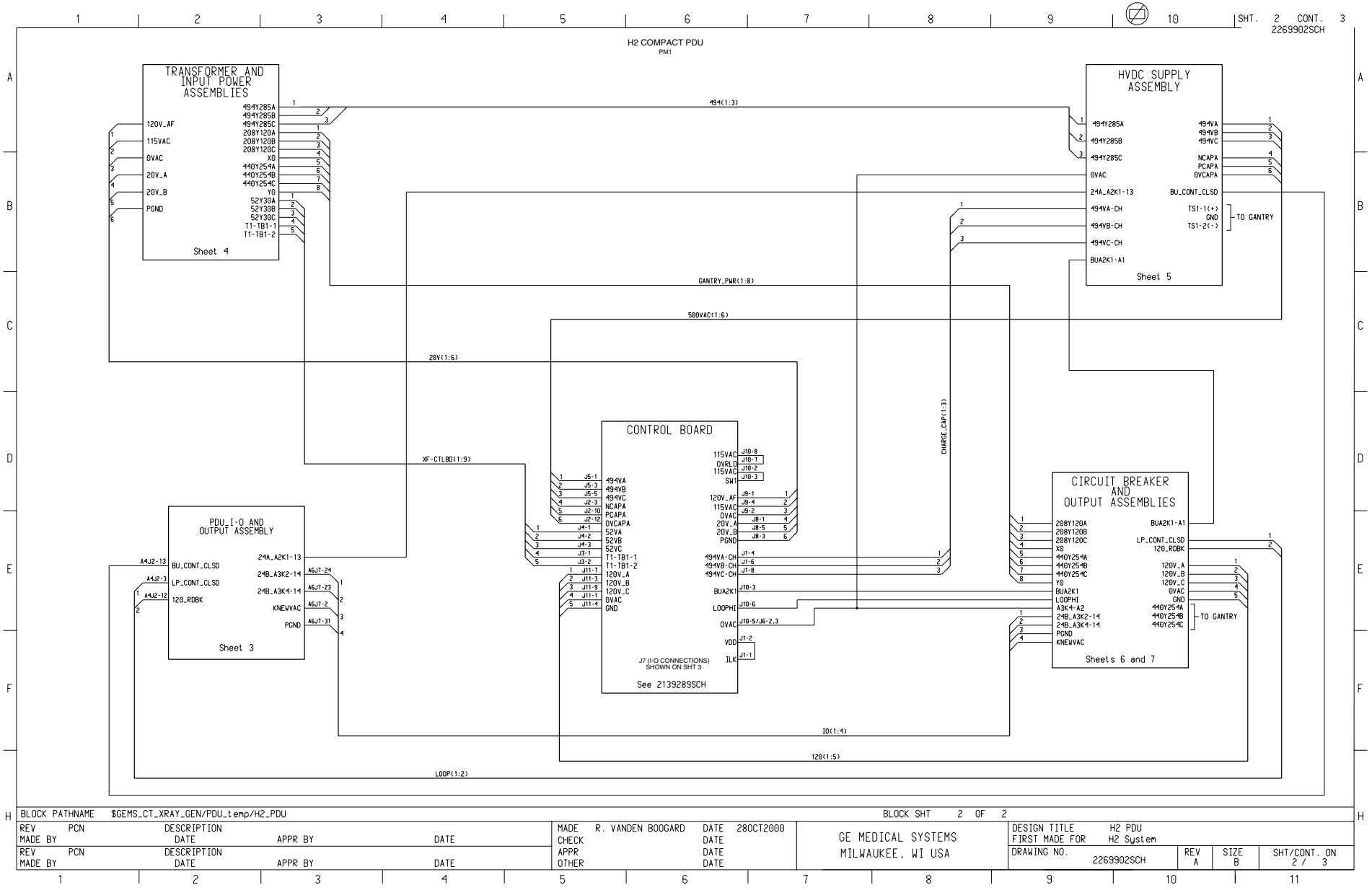


Figure 2-2 2269902, Sheet 2, Rev A

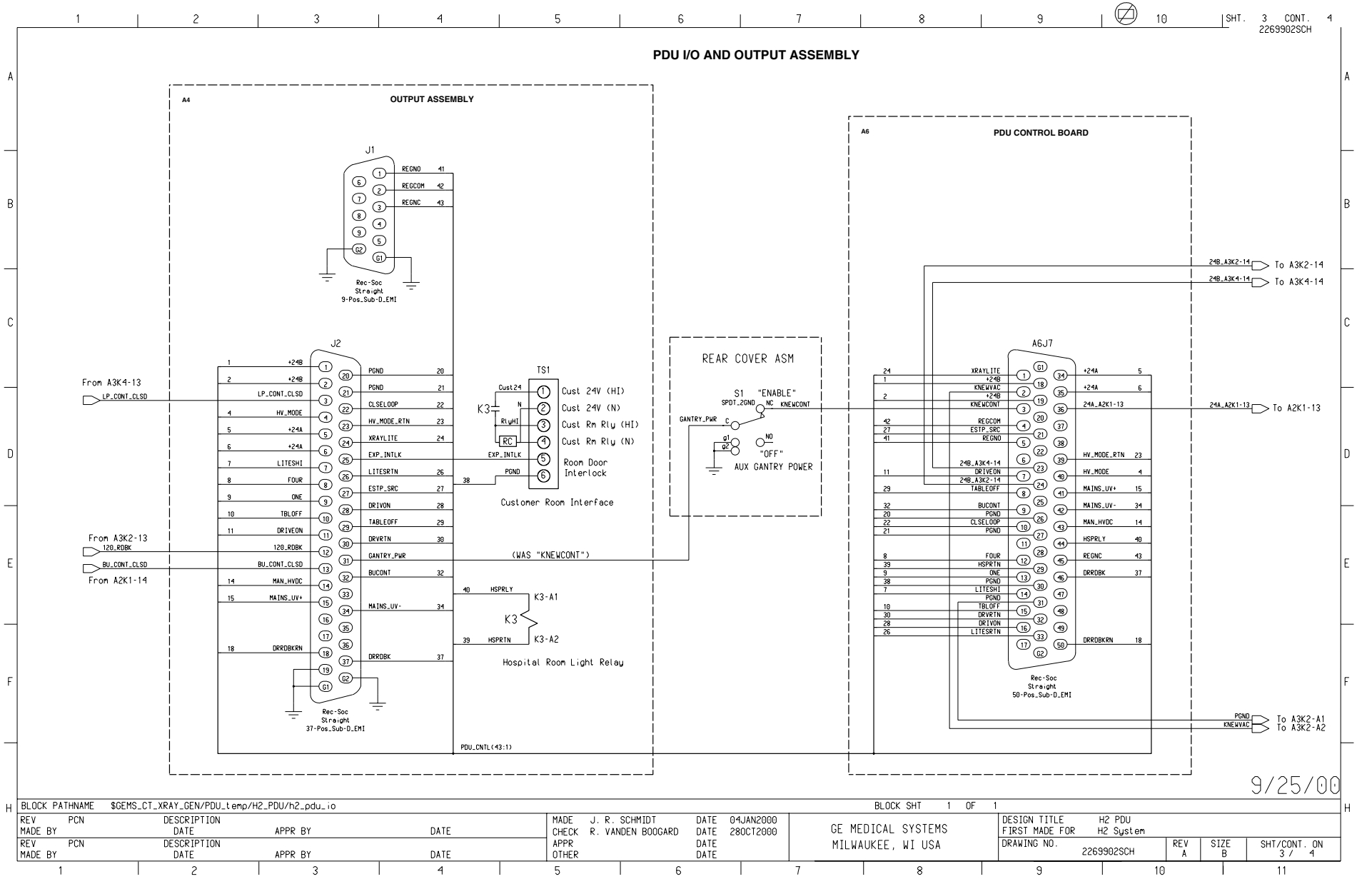
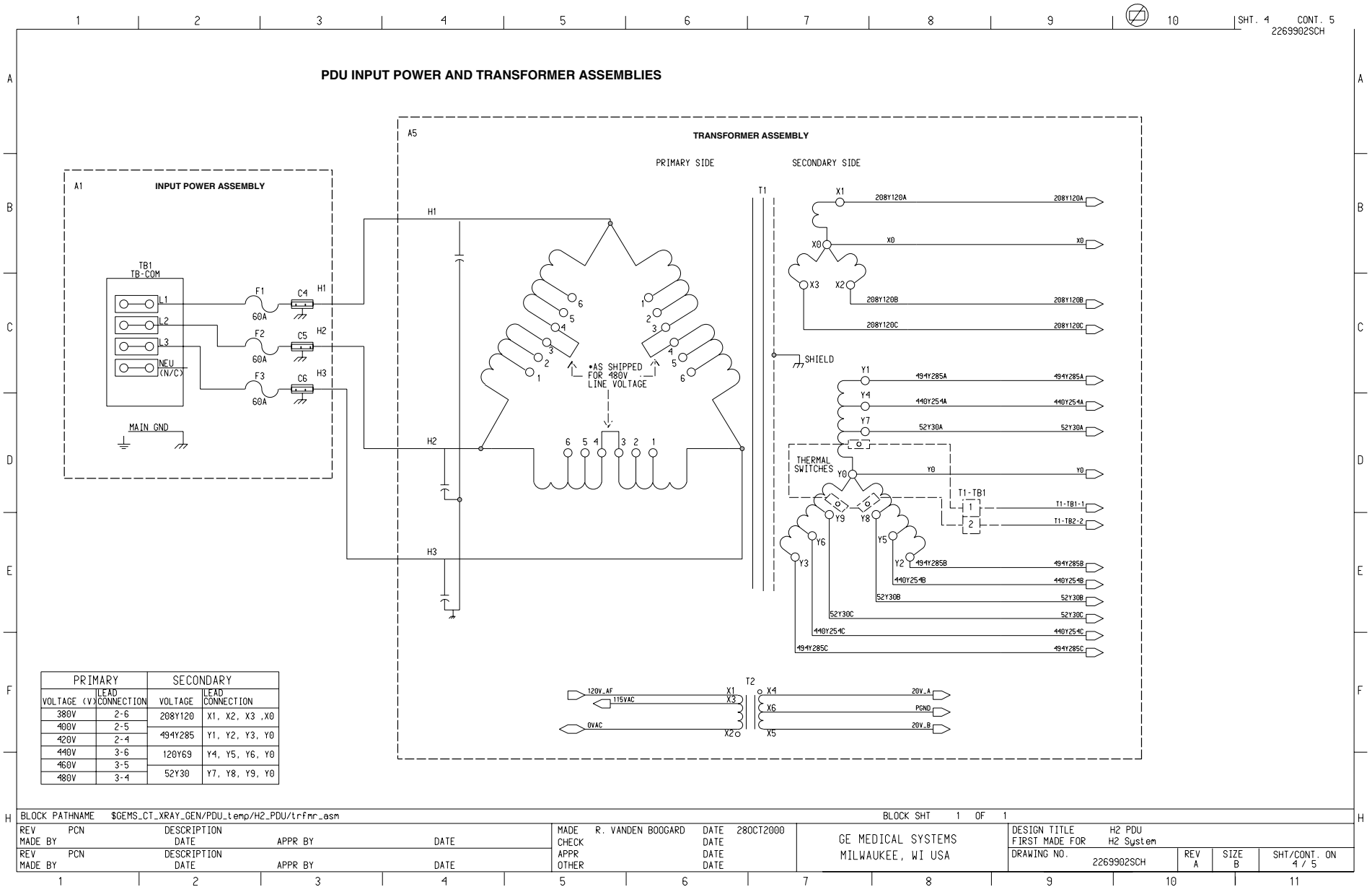


Figure 2-3 2269902, Sheet 3, Rev A



PRIMARY		SECONDARY	
VOLTAGE (V)	LEAD CONNECTION	VOLTAGE	LEAD CONNECTION
380V	2-6	208Y120	X1, X2, X3 ,X0
400V	2-5	494Y285	Y1, Y2, Y3, Y0
420V	2-4		
440V	3-6	120Y69	Y4, Y5, Y6, Y0
460V	3-5	52Y30	Y7, Y8, Y9, Y0
480V	3-4		

Figure 2-4 2269902, Sheet 4, Rev A

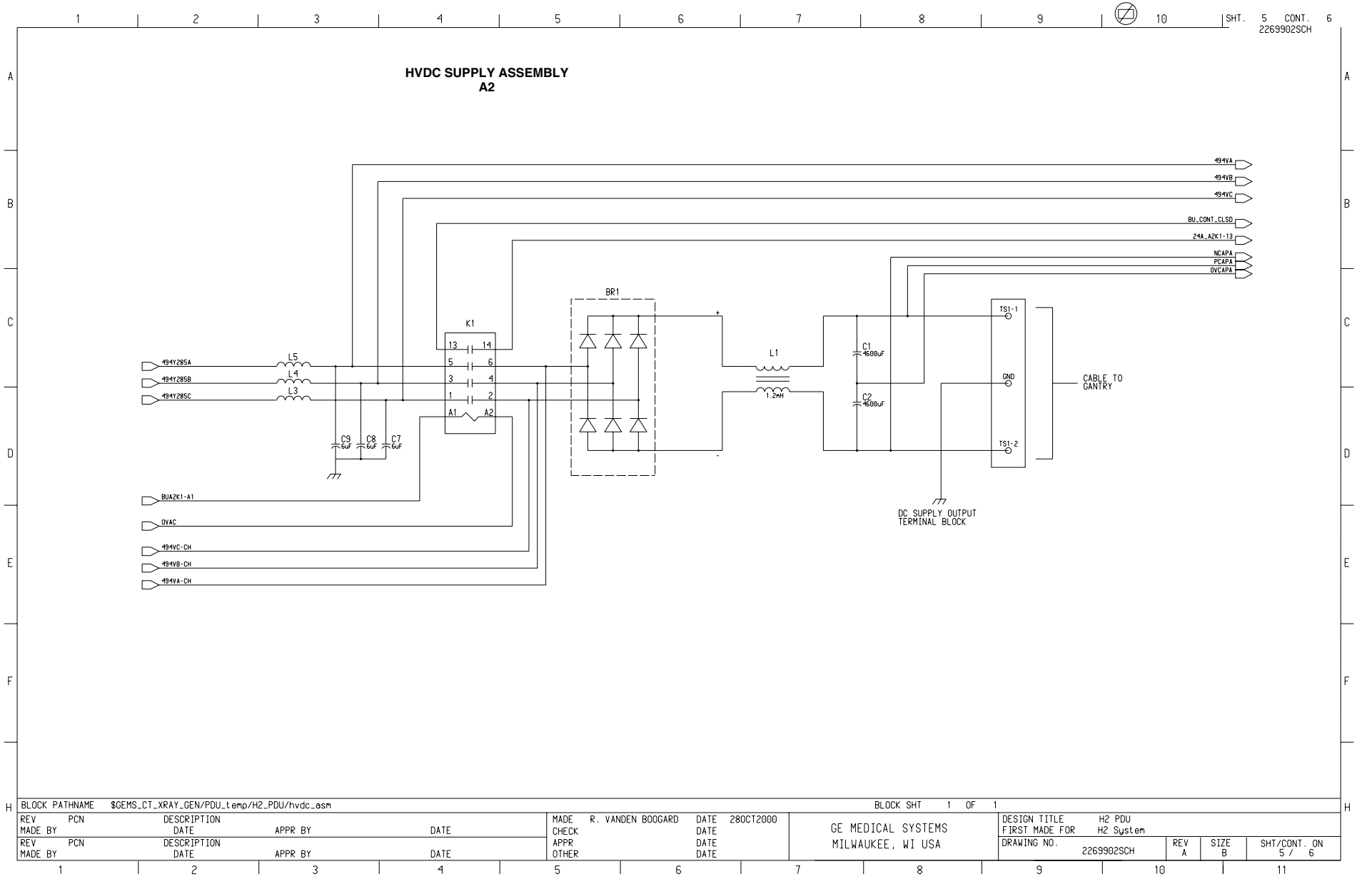


Figure 2-5 2269902, Sheet 5, Rev A

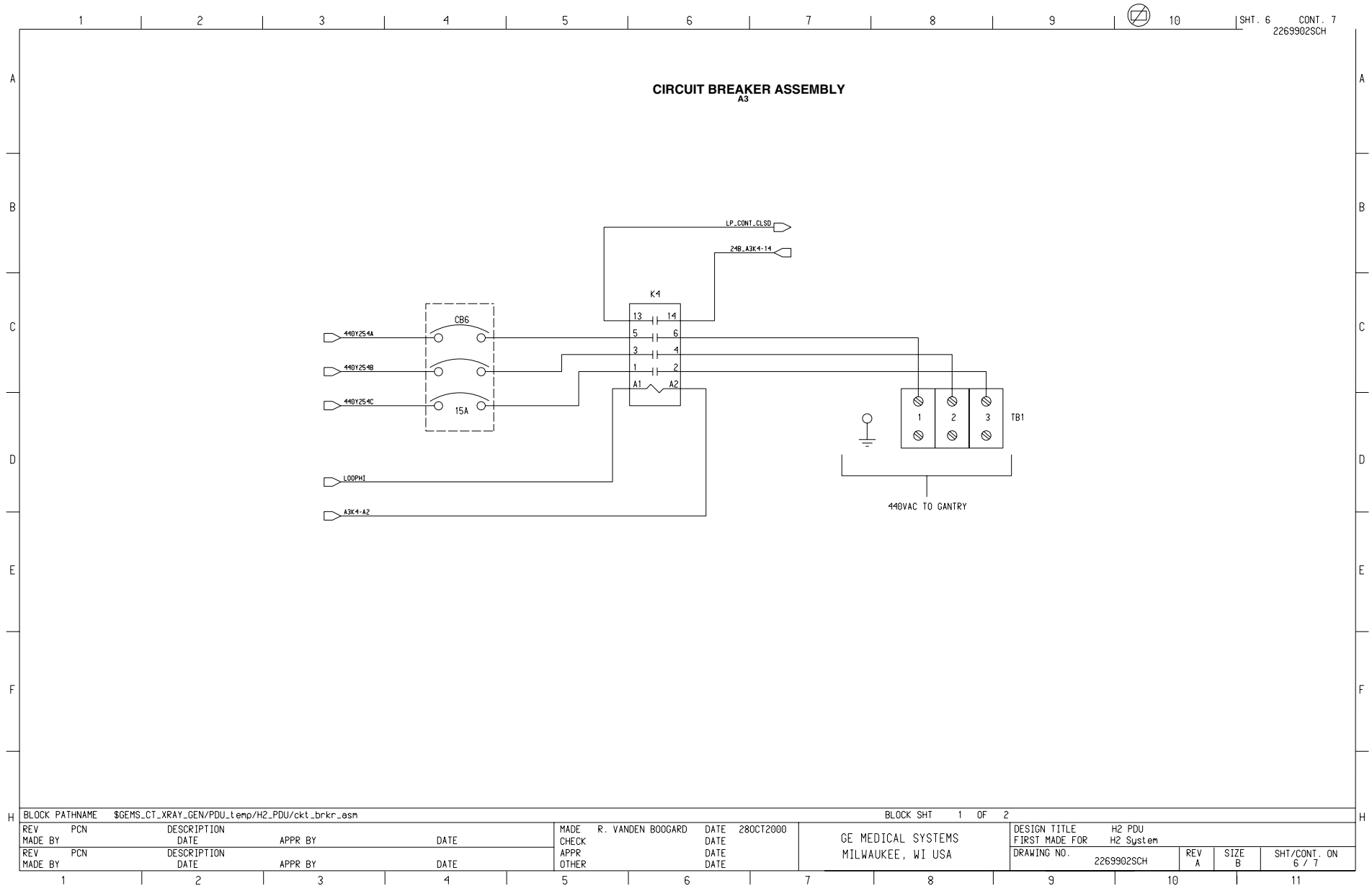


Figure 2-6 2269902, Sheet 6, Rev A

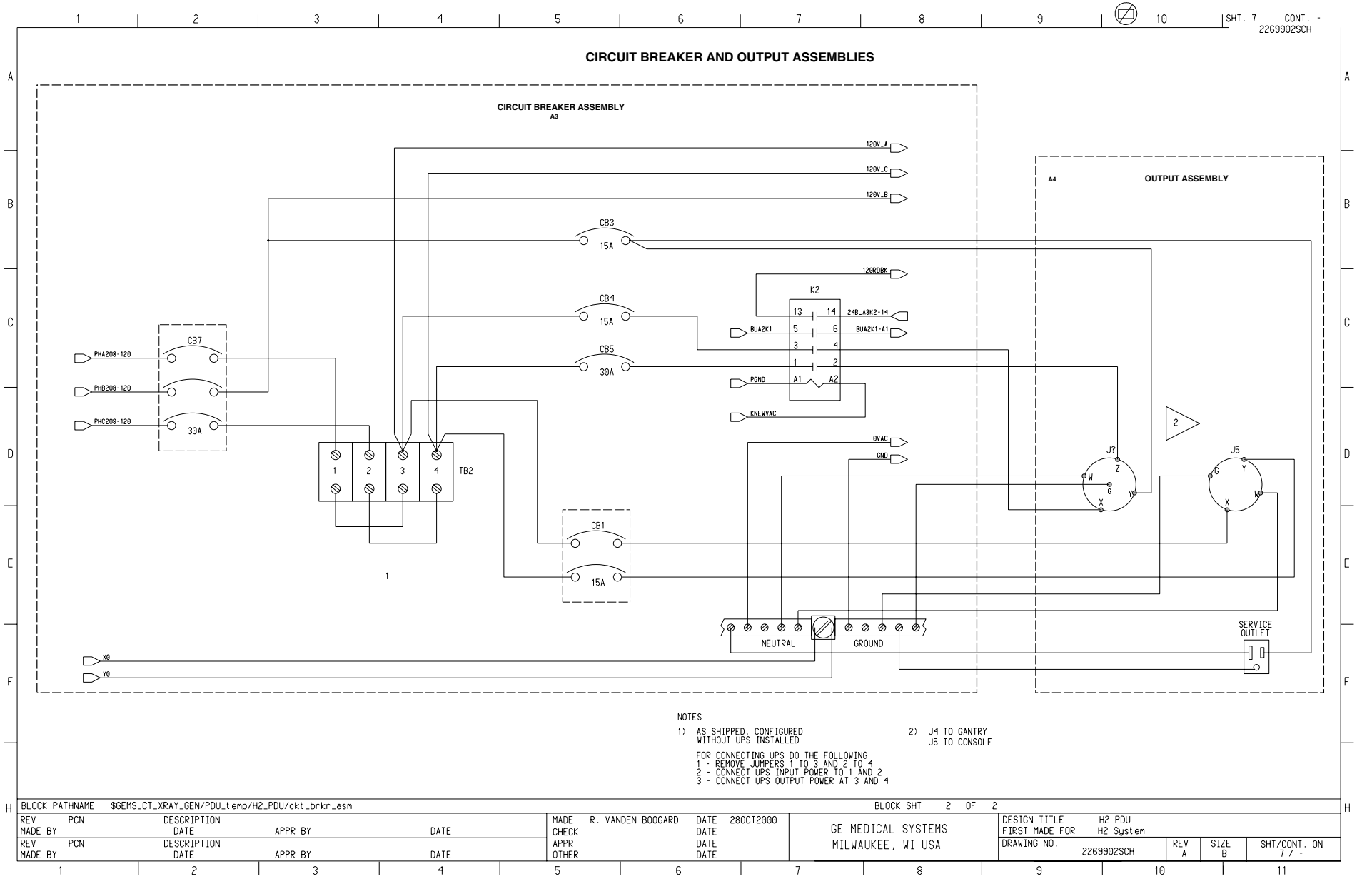
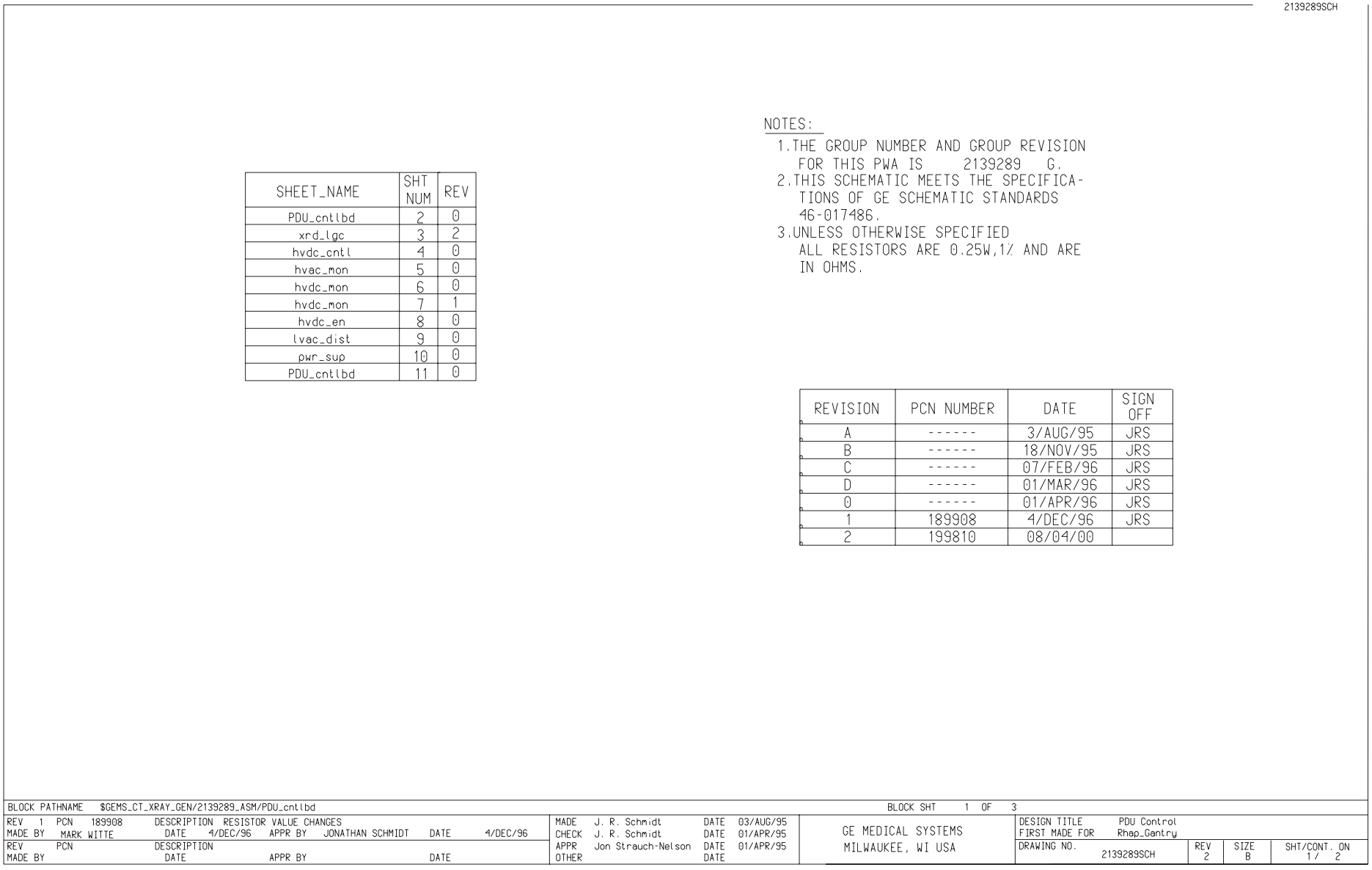


Figure 2-7 2269902, Sheet 7, Rev A

Section 2.0 — PDU Control - 2139289



SHEET_NAME	SHT NUM	REV
PDU_cntlbd	2	0
xrd_lgc	3	2
hvdc_cntl	4	0
hvac_mon	5	0
hvdc_mon	6	0
hvdc_mon	7	1
hvdc_en	8	0
lvac_dist	9	0
pwr_sup	10	0
PDU_cntlbd	11	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	3/AUG/95	JRS
B	------	18/NOV/95	JRS
C	------	07/FEB/96	JRS
D	------	01/MAR/96	JRS
0	------	01/APR/96	JRS
1	189908	4/DEC/96	JRS
2	199810	08/04/00	

Figure 2-8 2139289, Sheet 1, Rev 2

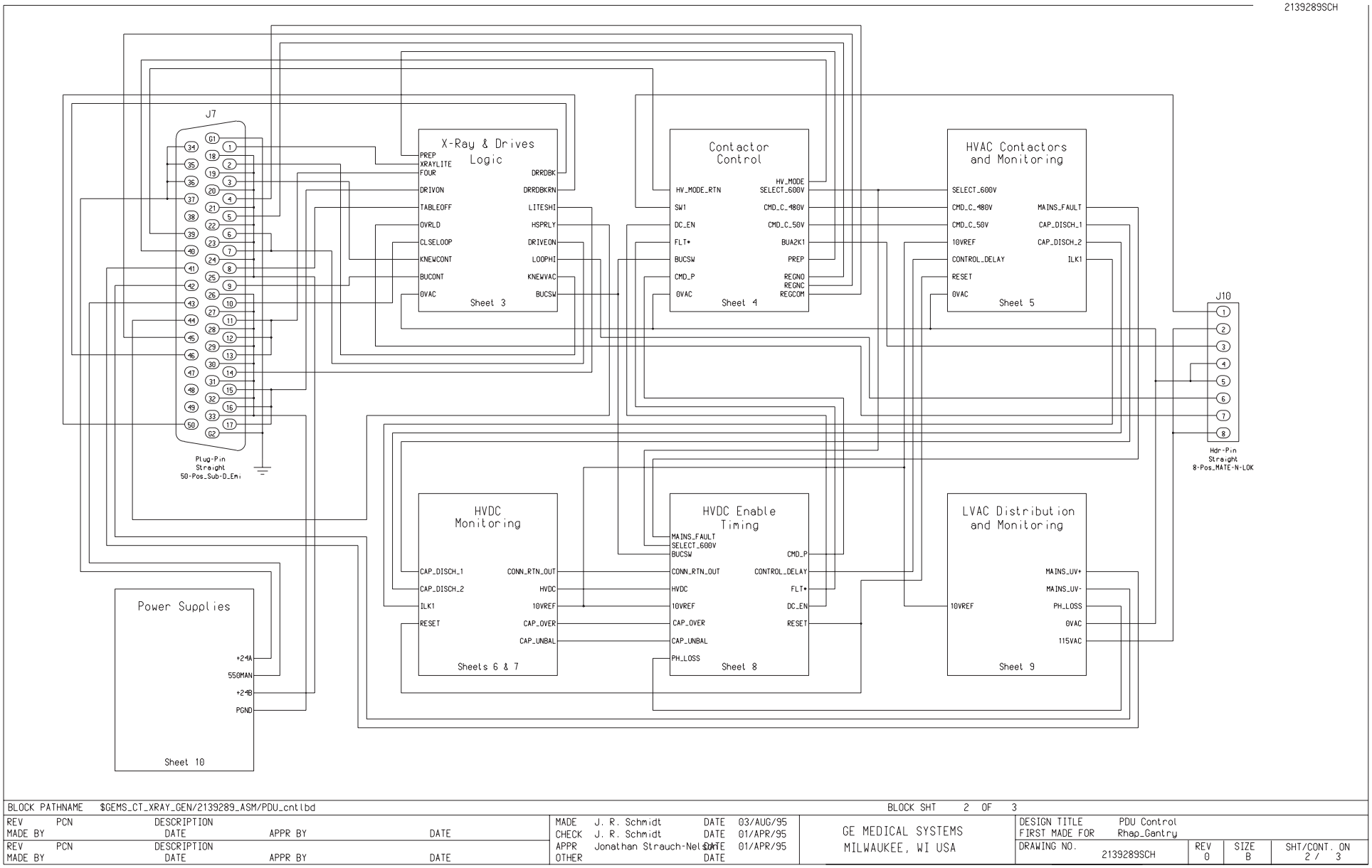


Figure 2-9 2139289, Sheet 2, Rev 0

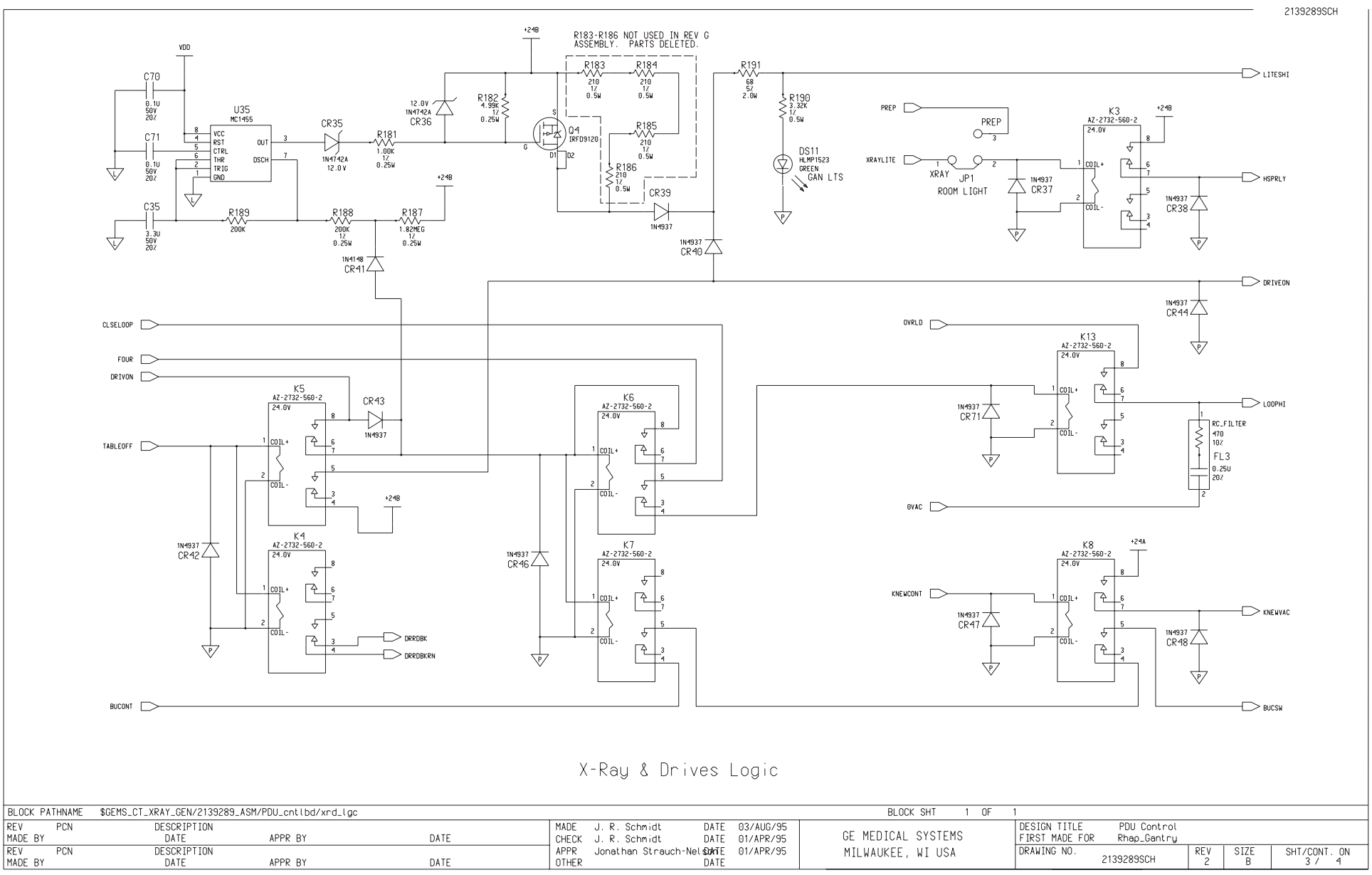


Figure 2-10 2139289, Sheet 3, Rev 2

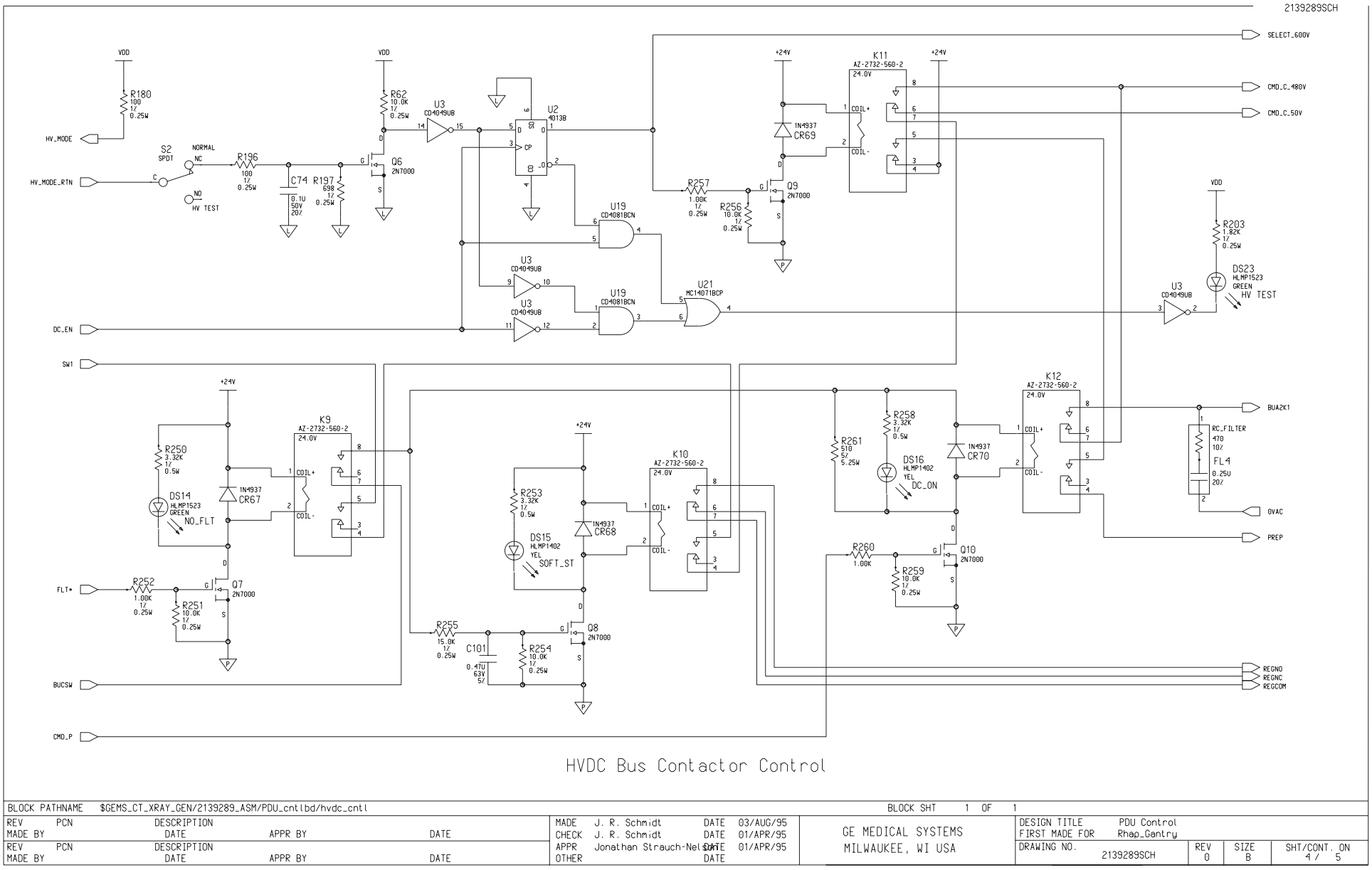


Figure 2-11 2139289, Sheet 4, Rev 0

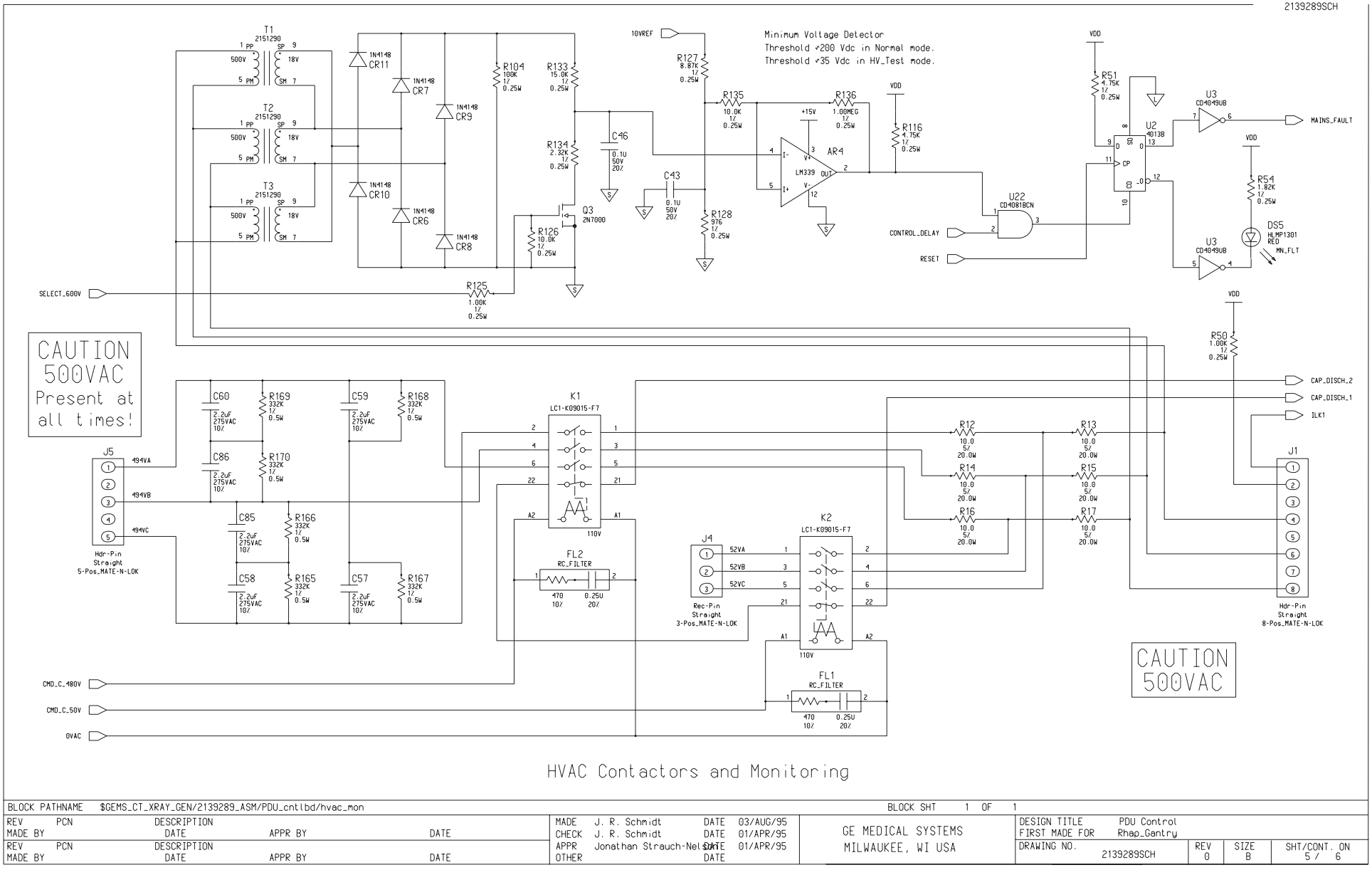


Figure 2-12 2139289, Sheet 5, Rev 0

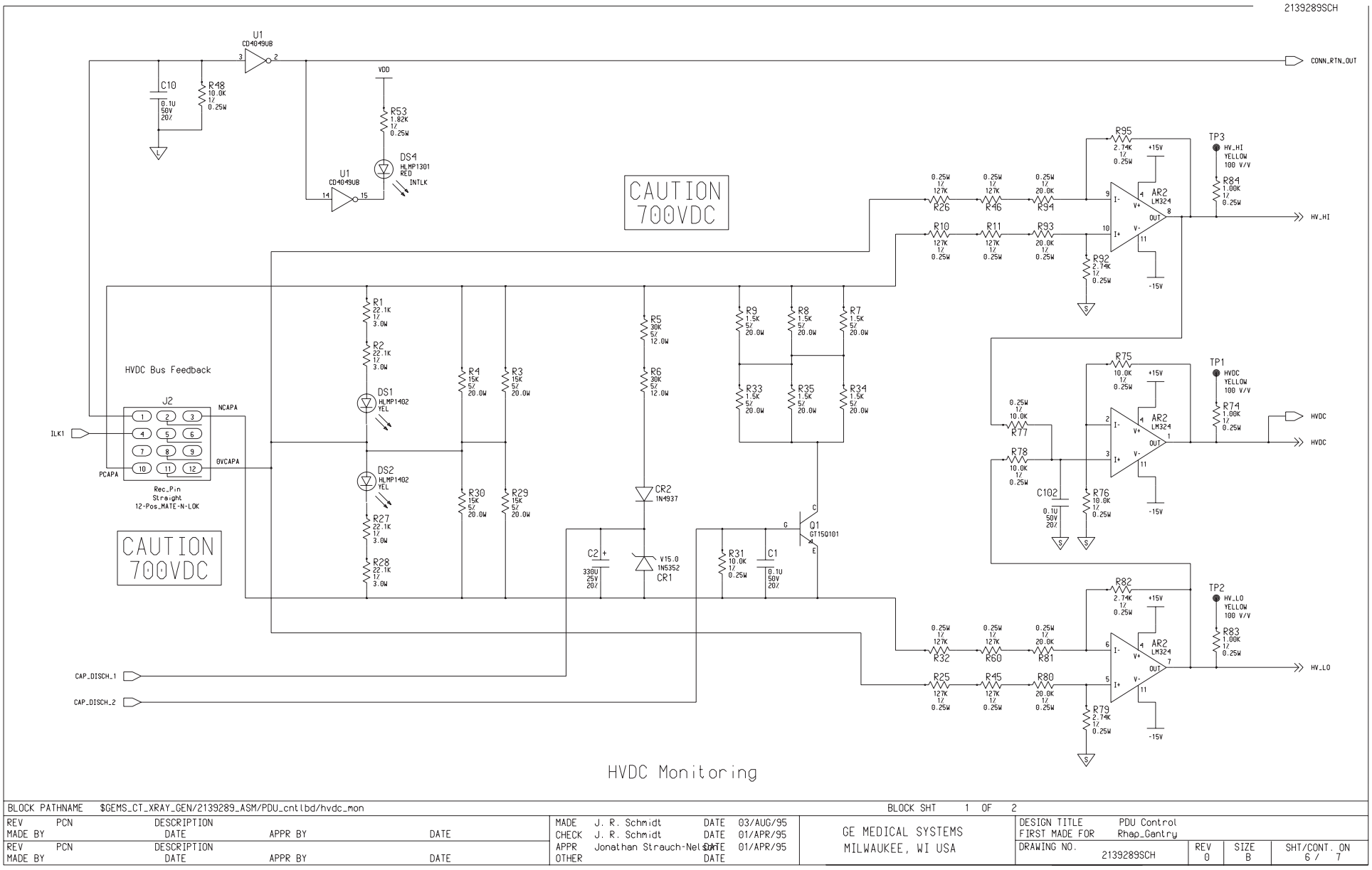


Figure 2-13 2139289, Sheet 6, Rev 0

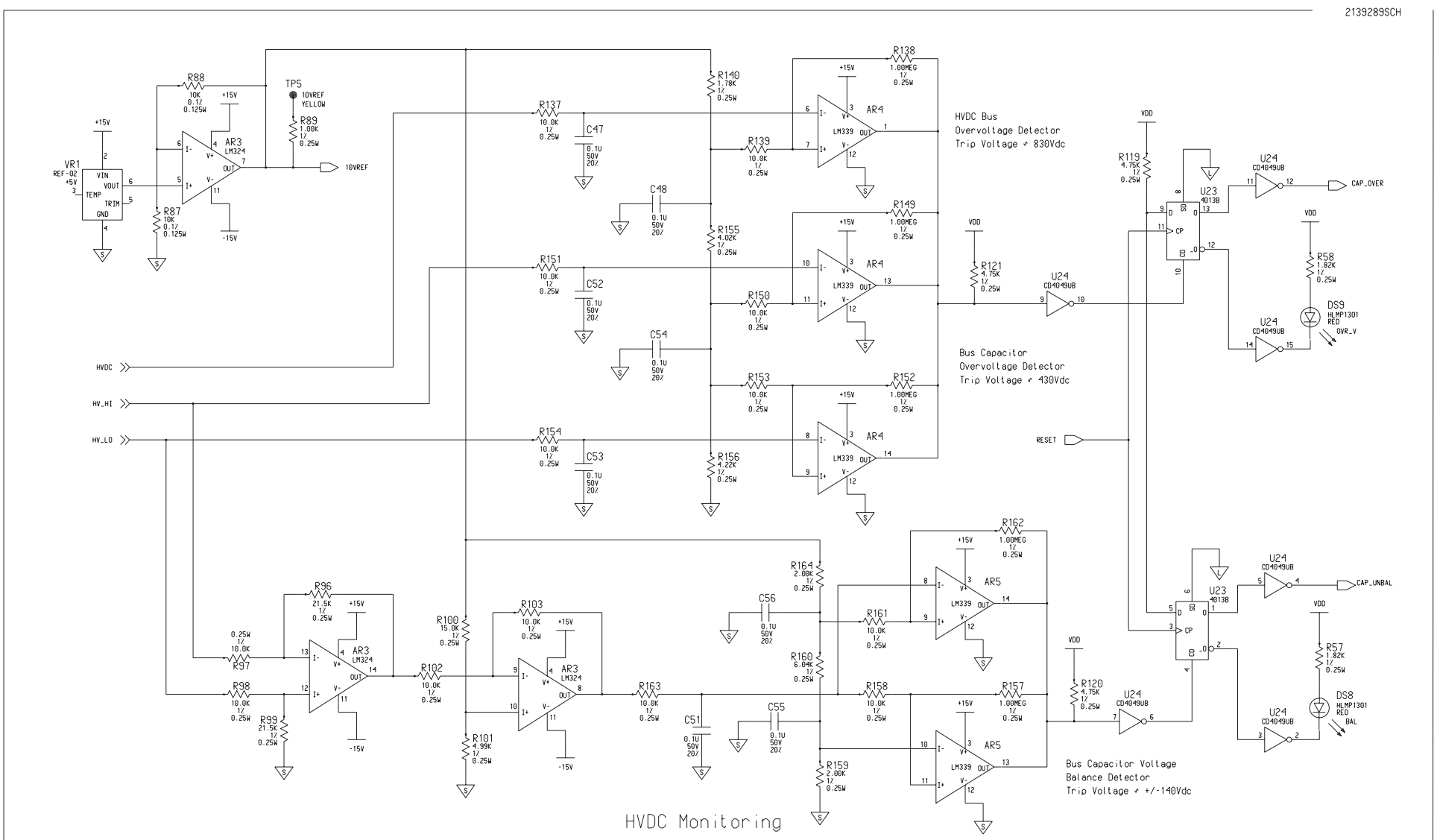


Figure 2-14 2139289, Sheet 7, Rev 1

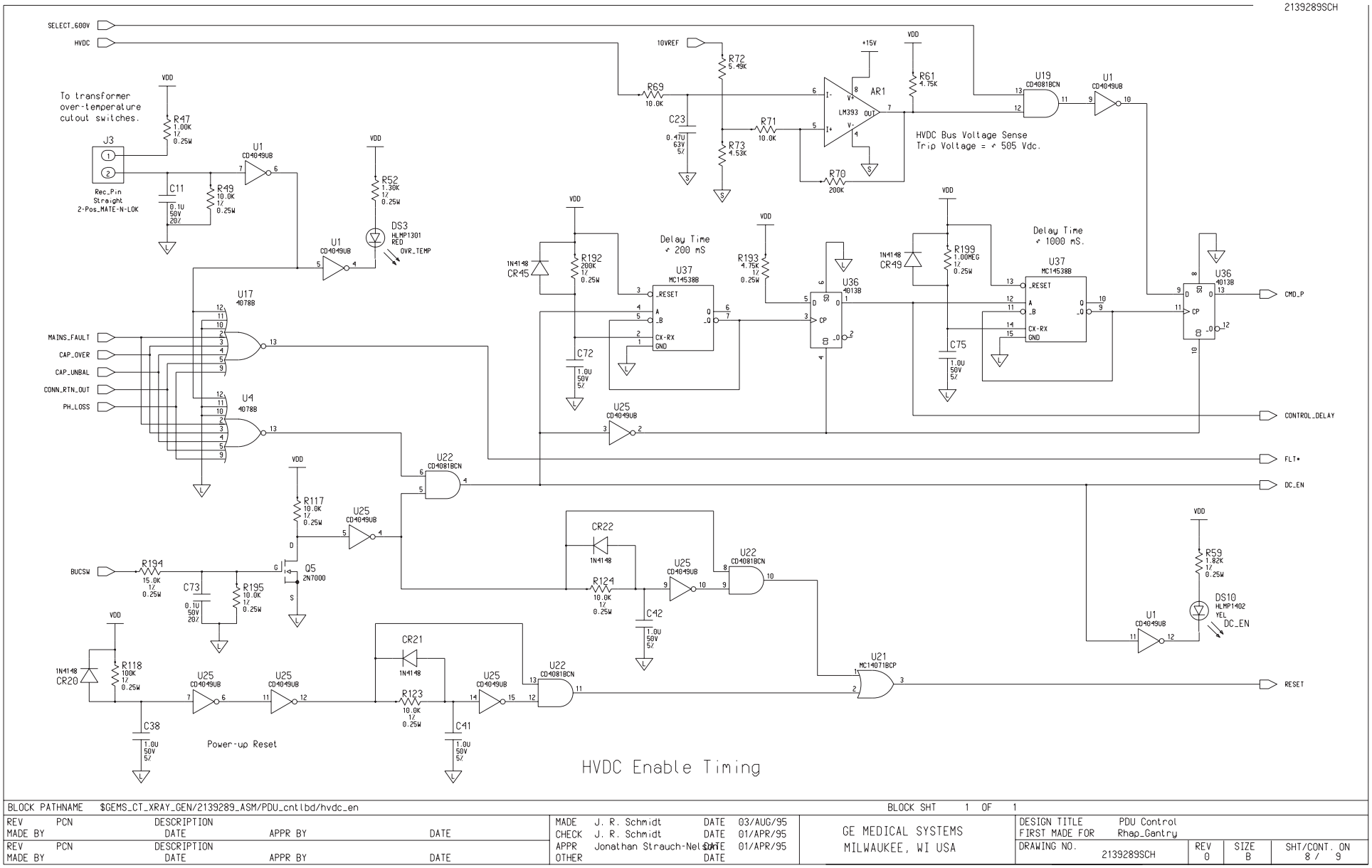


Figure 2-15 2139289, Sheet 8, Rev 0

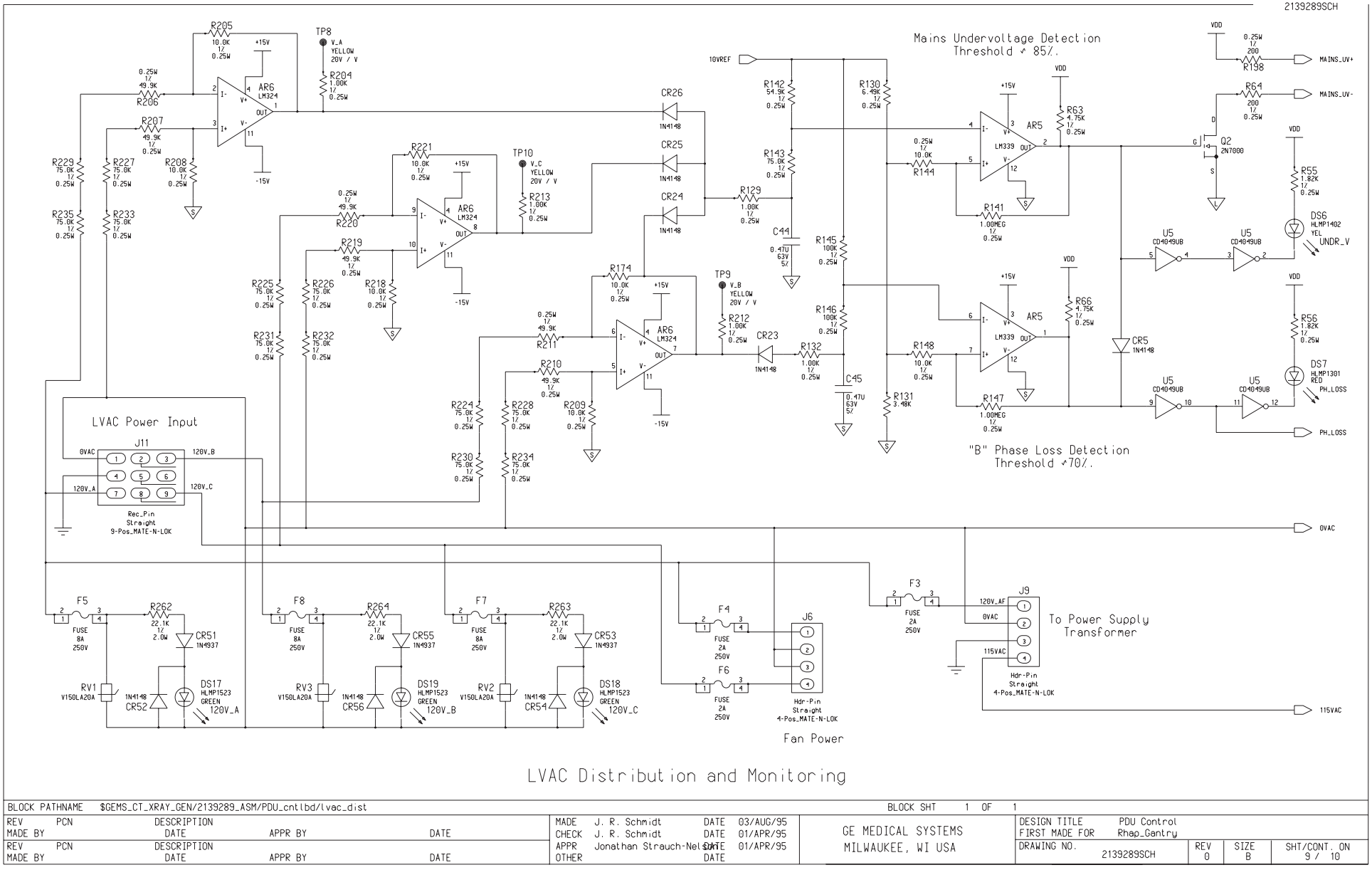


Figure 2-16 2139289, Sheet 9, Rev 0

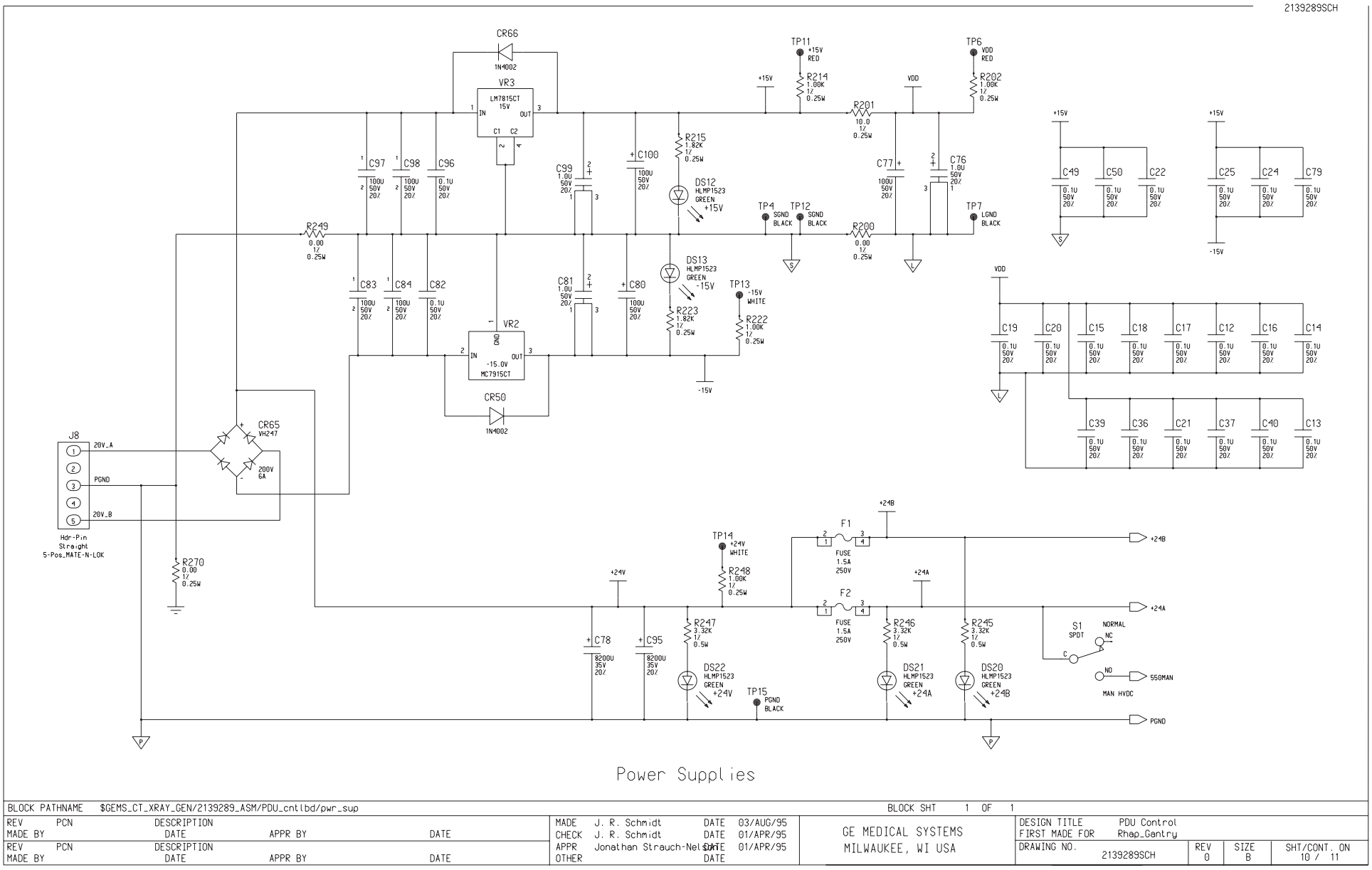


Figure 2-17 2139289, Sheet 10, Rev 0

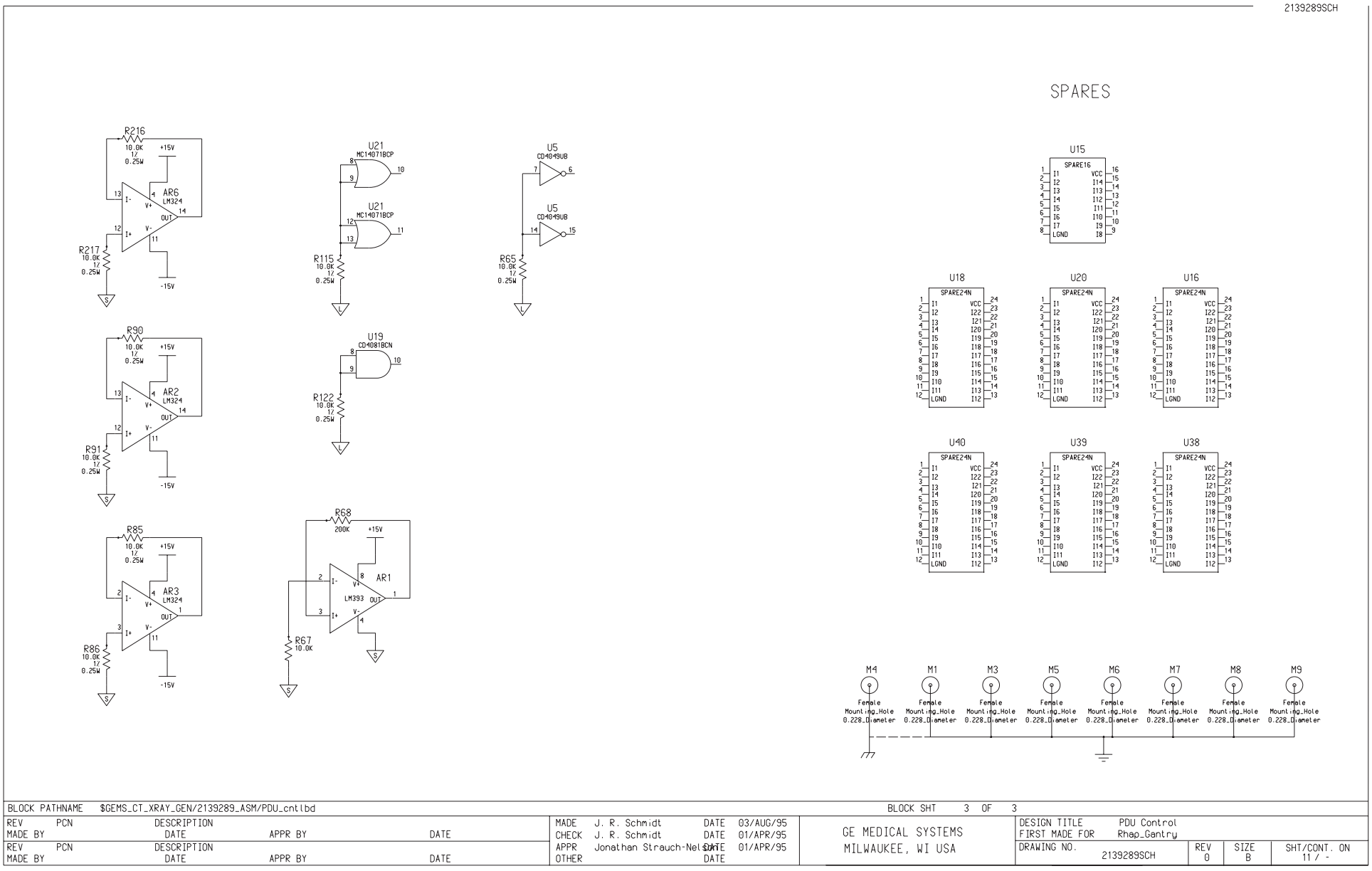


Figure 2-18 2139289, Sheet 11, Rev 0

Chapter 3
Gantry

Section 1.0 — Gantry Stationary, Rotating & Boards

1.1 Gantry Stationary Interconnect

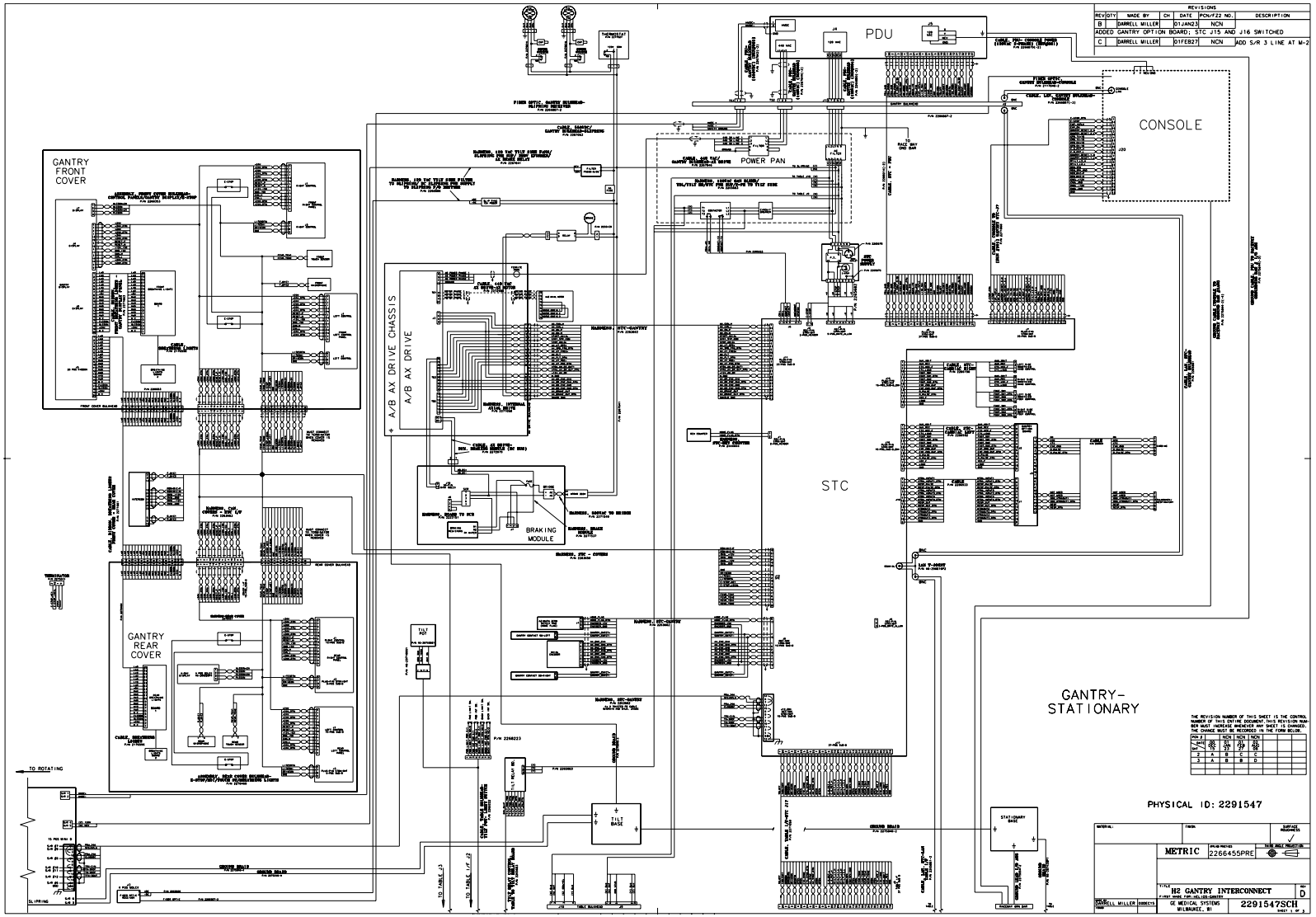


Figure 3-1 2291547, Sheet 1, Rev D (see further pages for detail)

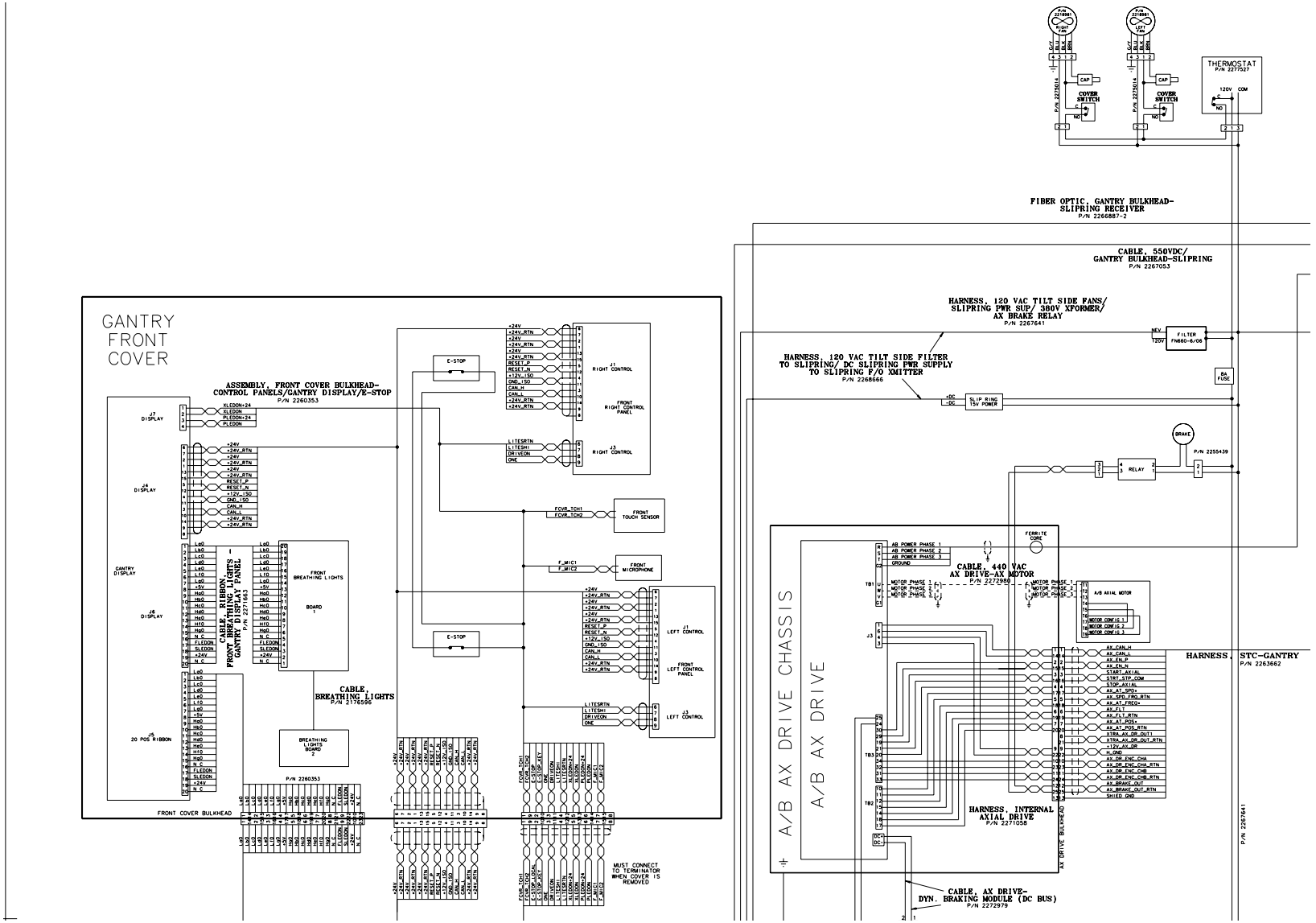


Figure 3-2 2291547, Sheet 1, Rev D (upper left quadrant)

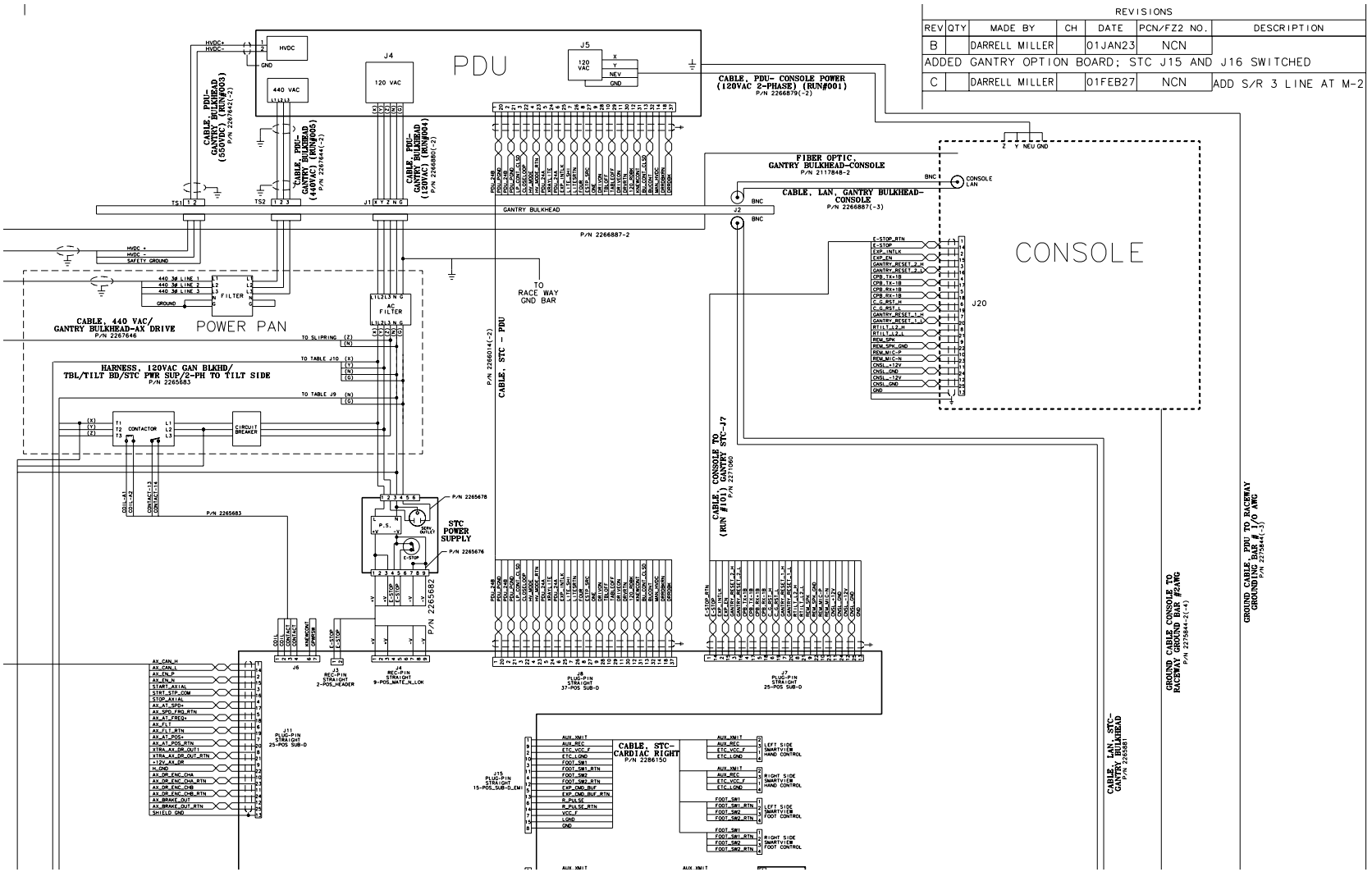


Figure 3-3 2291547, Sheet 1, Rev D (upper right quadrant)

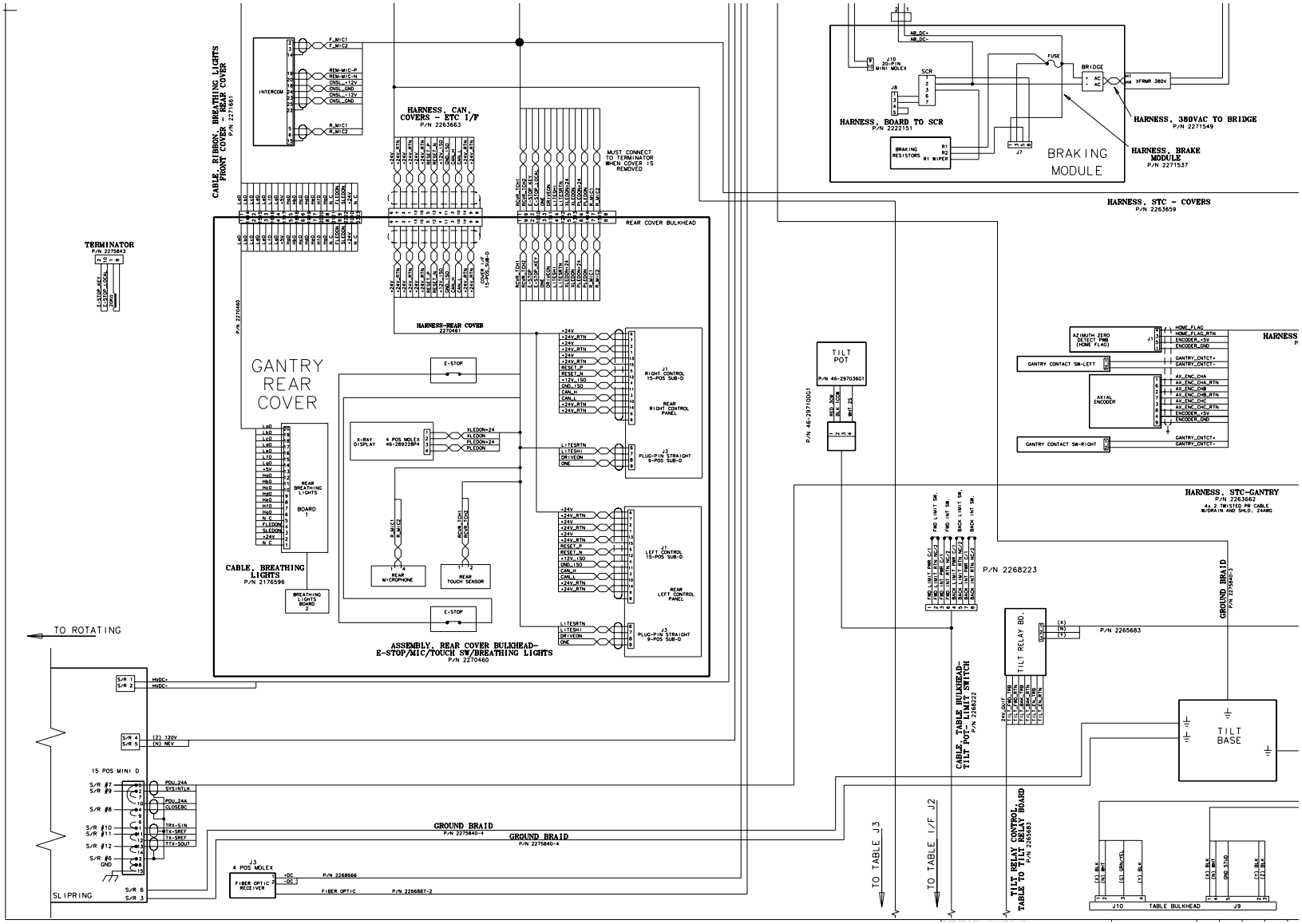


Figure 3-4 2291547, Sheet 1, Rev D (lower left quadrant)

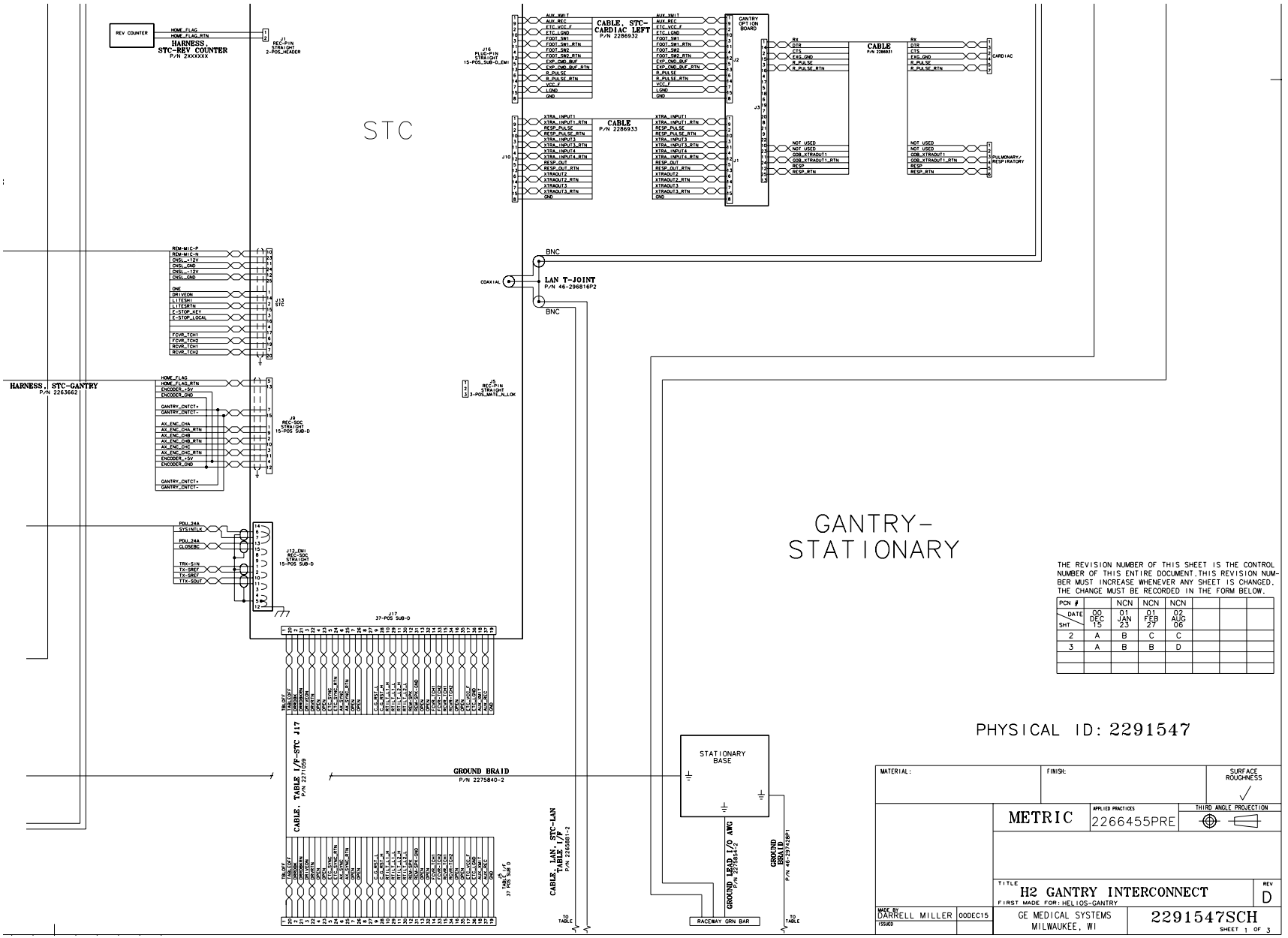


Figure 3-5 2291547, Sheet 1, Rev D (lower right quadrant)

1.2 Gantry Rotating Interconnect

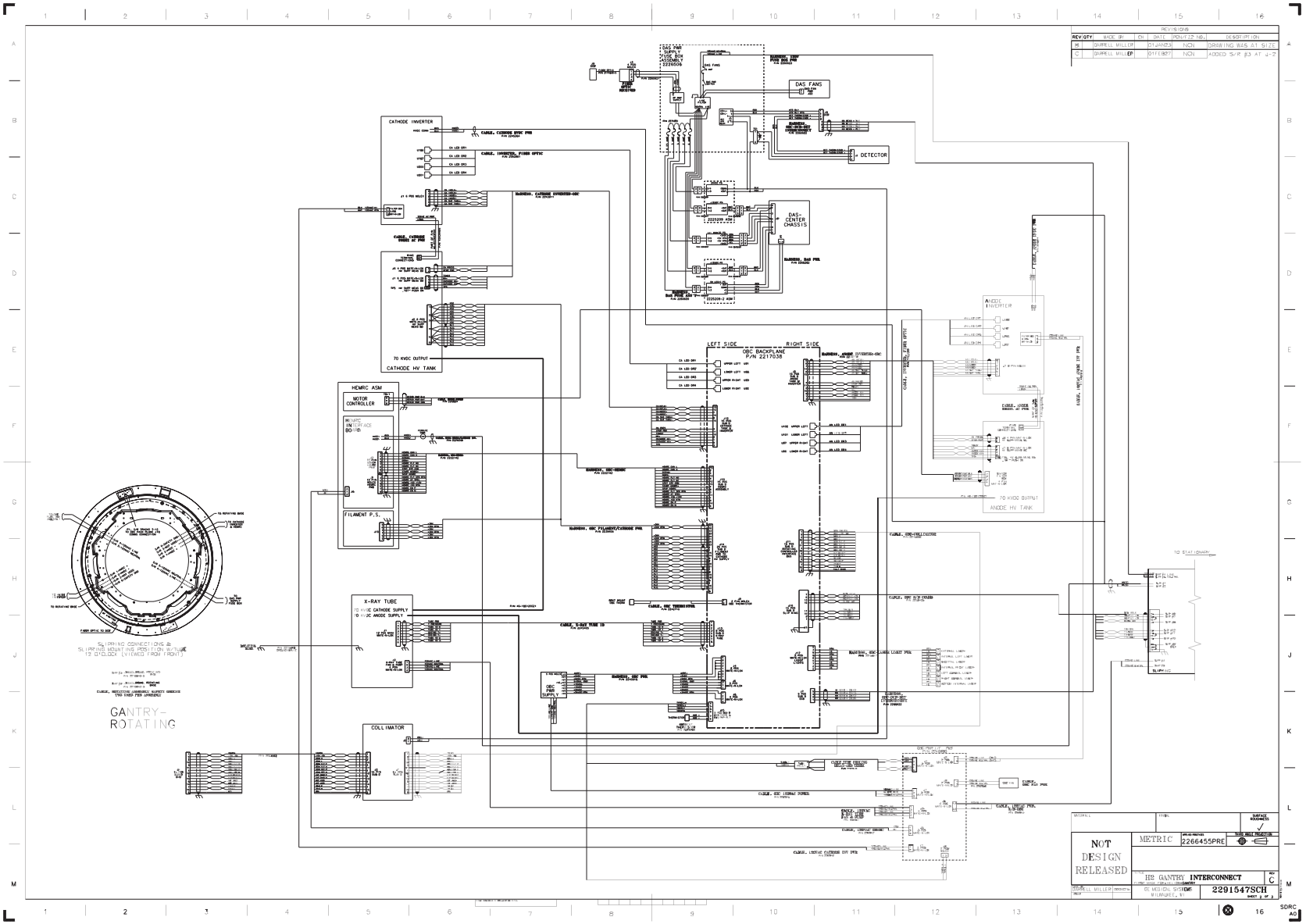


Figure 3-6 2291547, Sheet 2, Rev C (see further pages for detail)

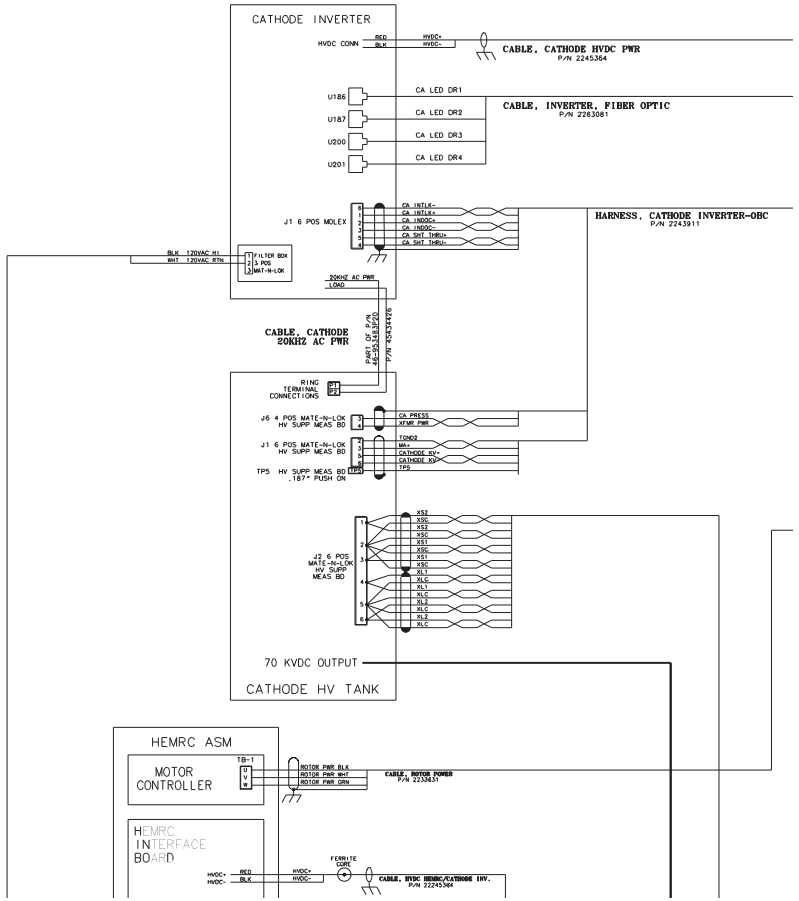


Figure 3-7 2291547, Sheet 2, Rev C (upper left quadrant)

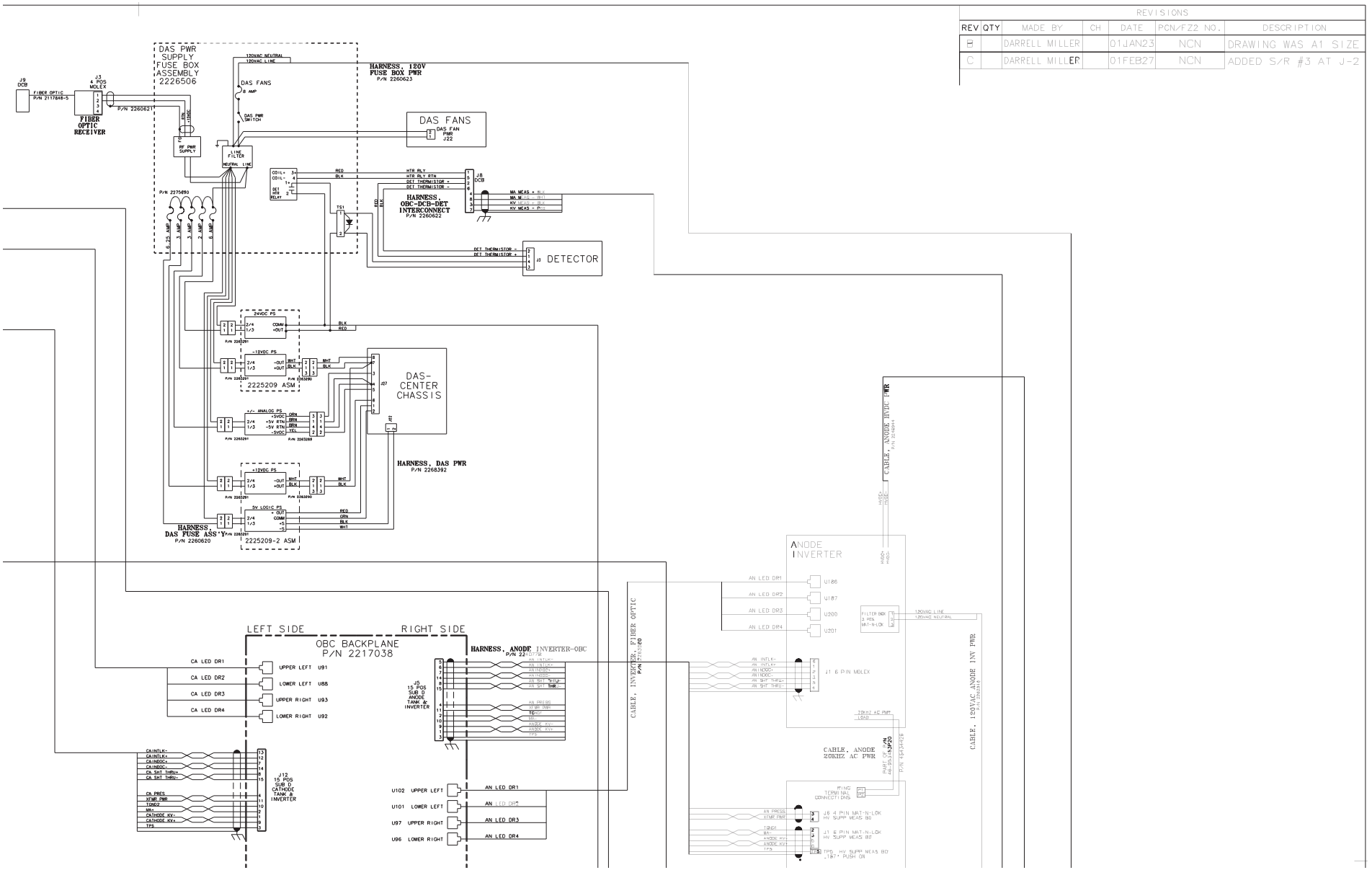


Figure 3-8 2291547, Sheet 2, Rev C (upper right quadrant)

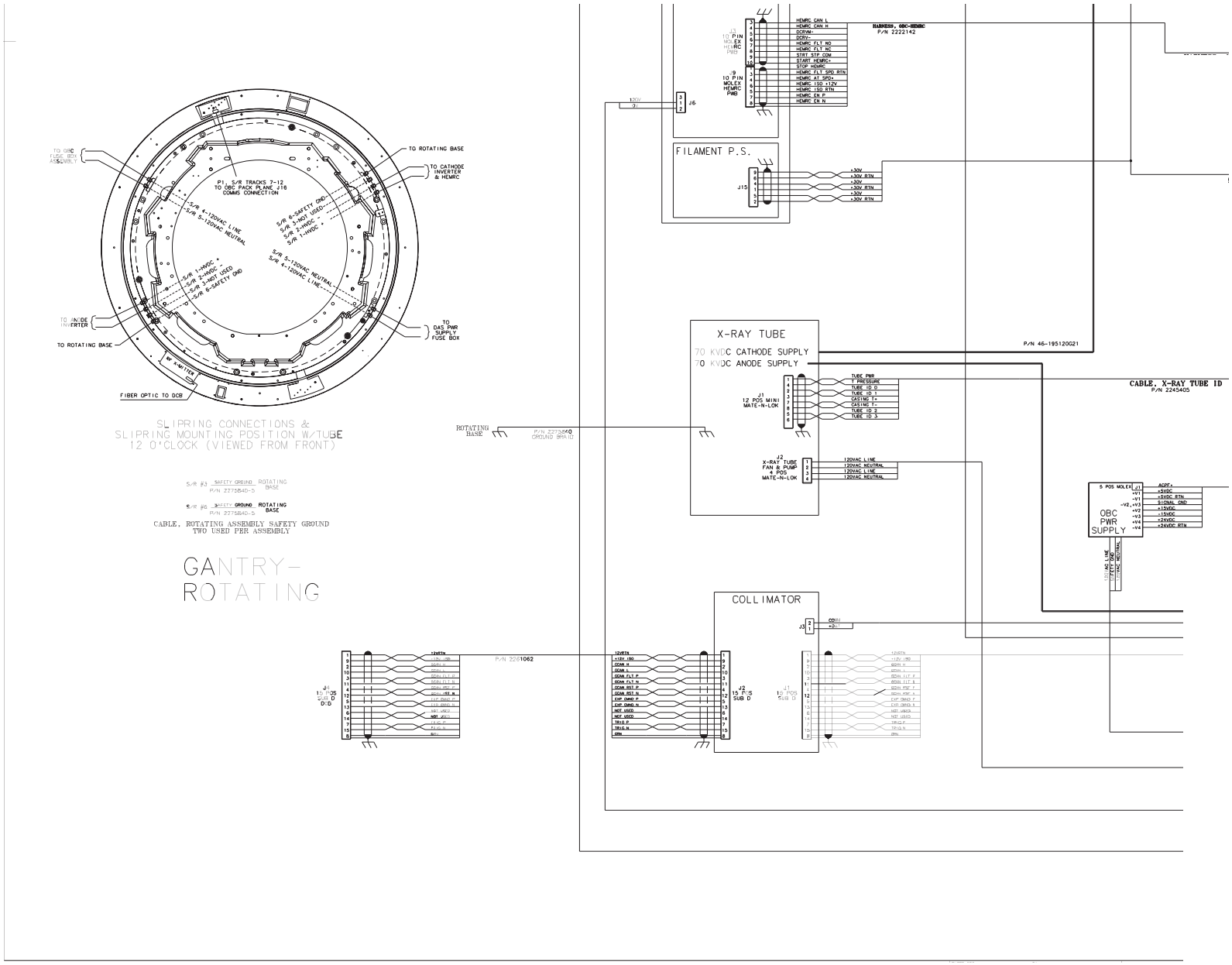


Figure 3-9 2291547, Sheet 2, Rev C (lower left quadrant)

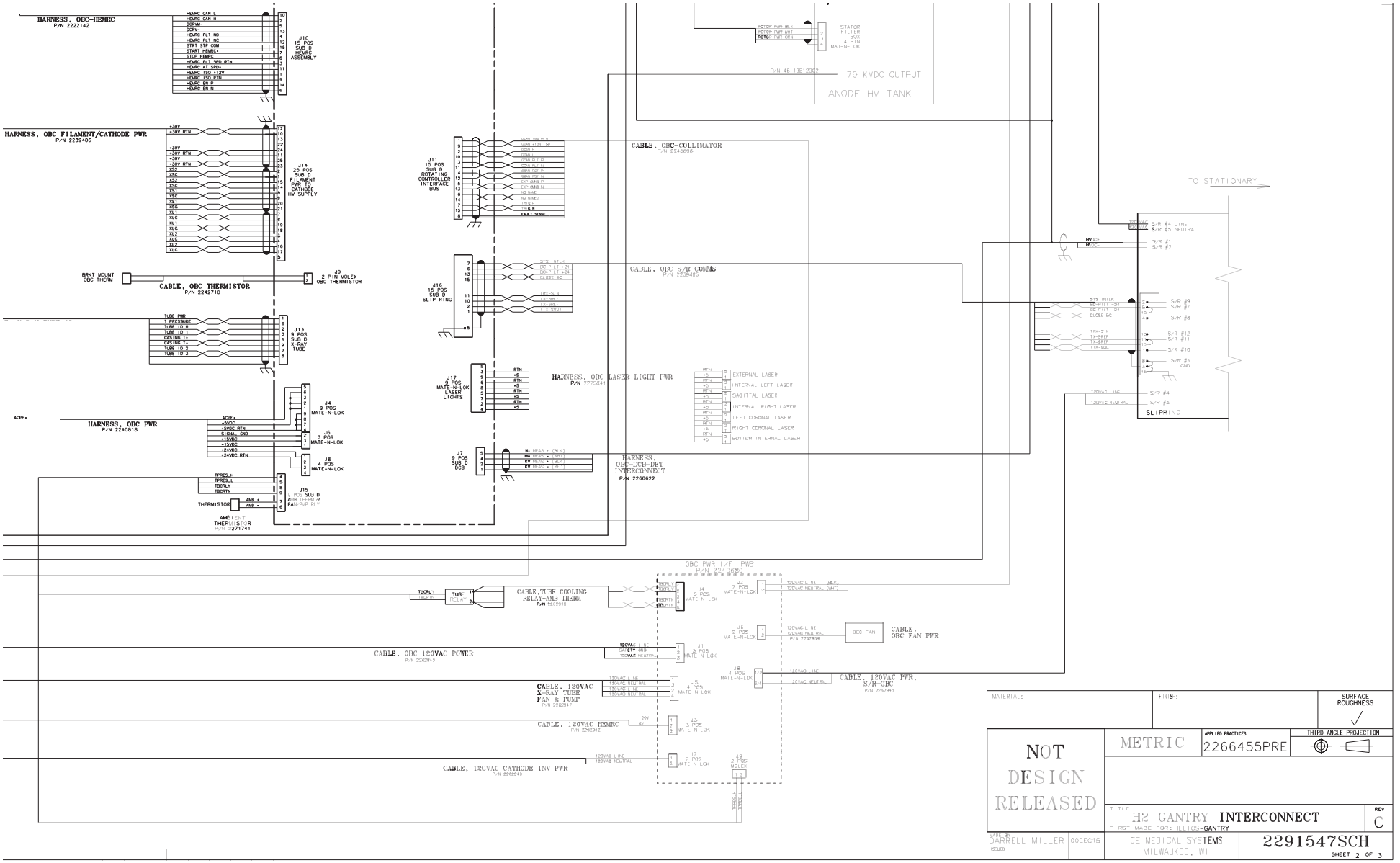


Figure 3-10 2291547, Sheet 2, Rev C (lower right quadrant)

1.3 Intercom Board - 2286305

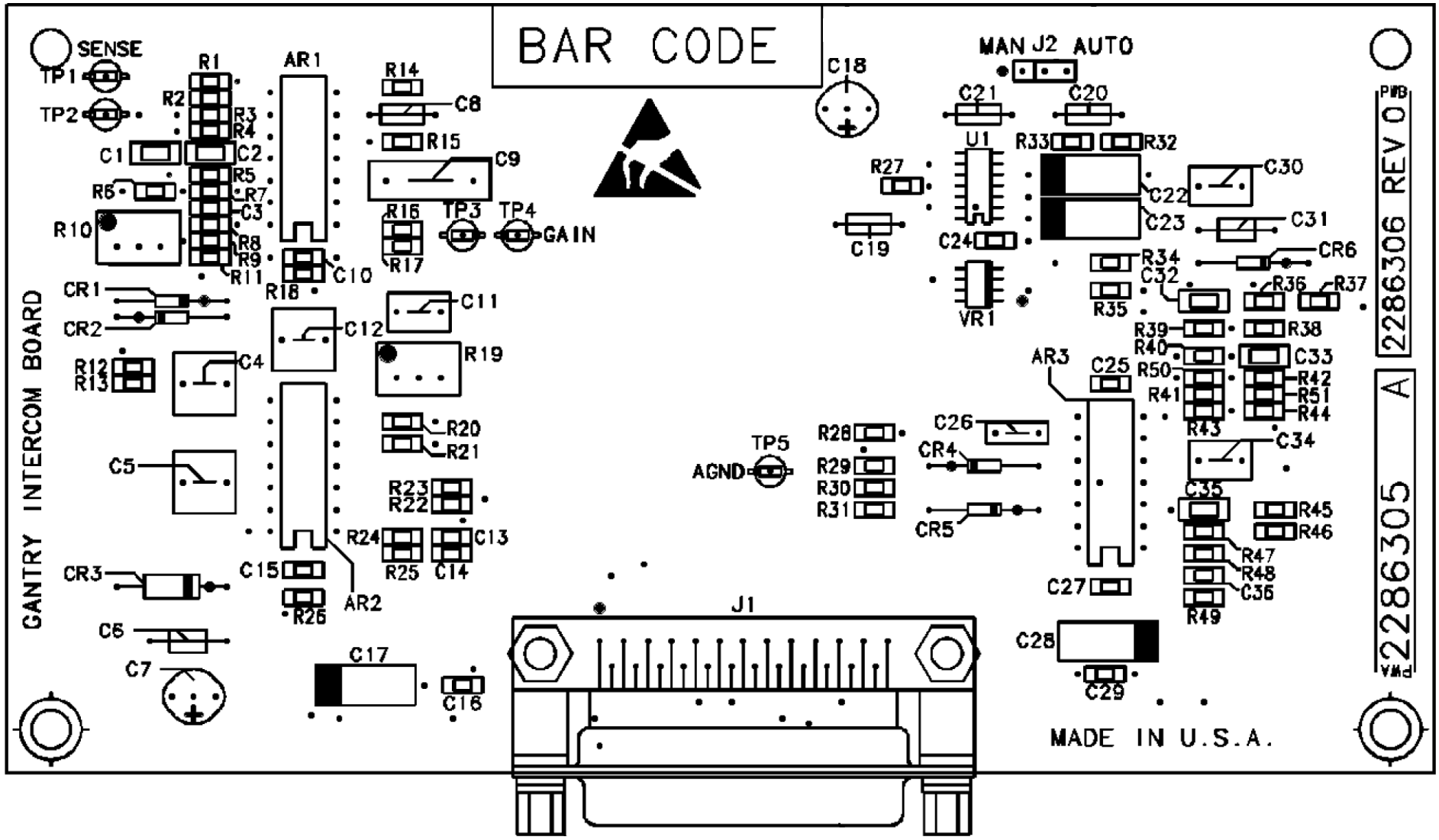


Figure 3-11 2286305 Board, rev 0

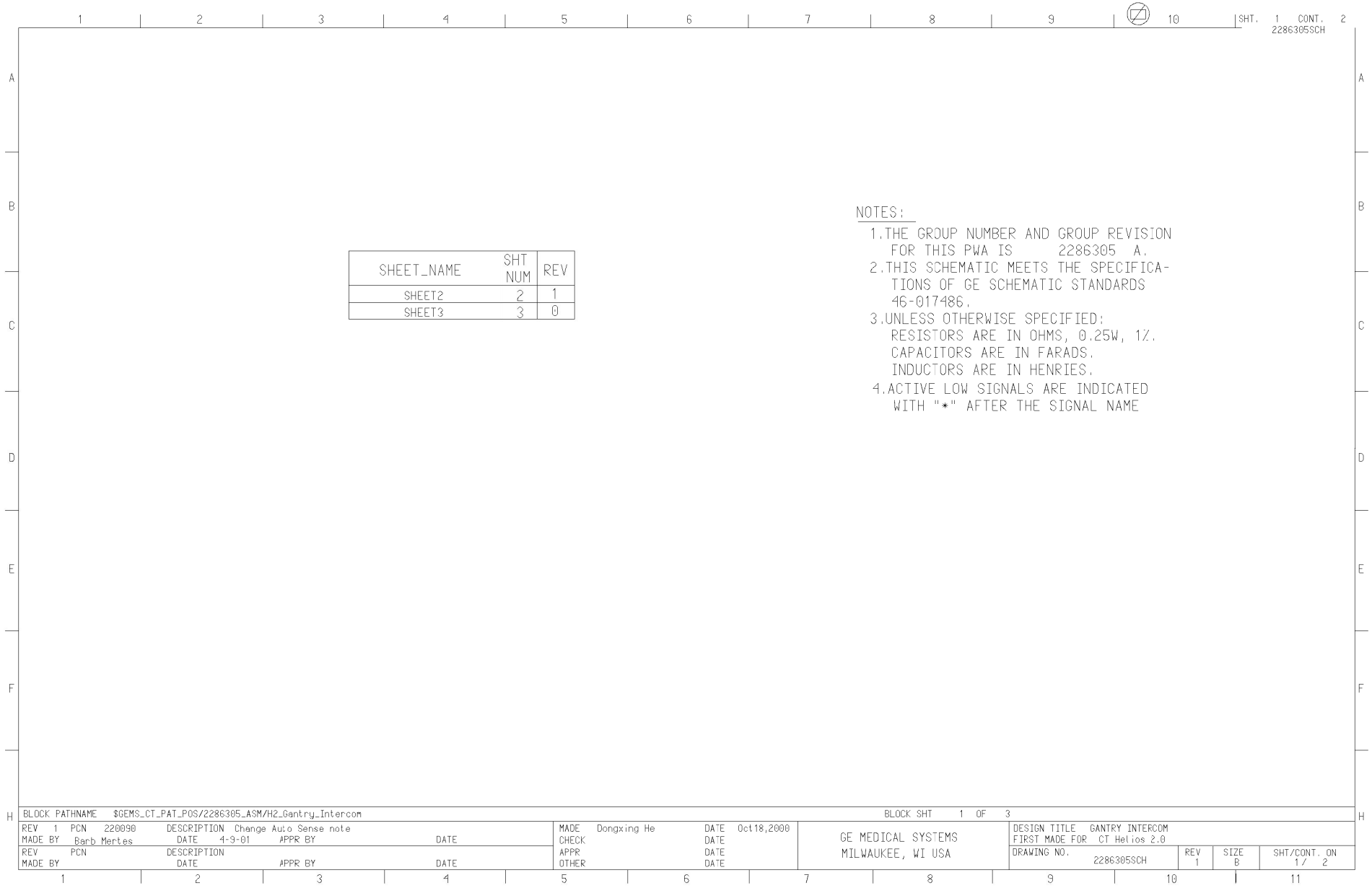


Figure 3-12 2286305, sheet 1, rev 1

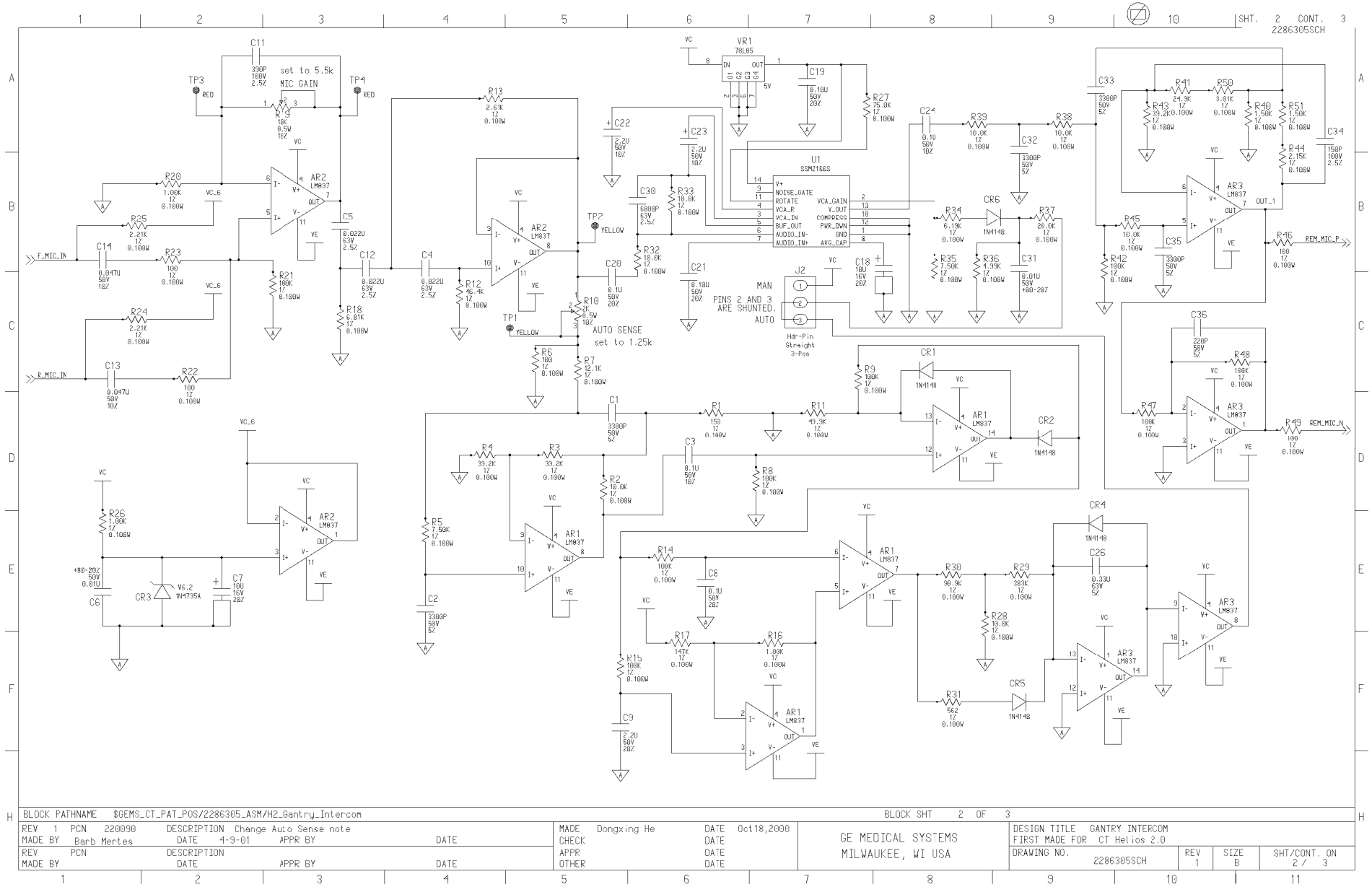


Figure 3-13 46-288766, sheet 2, rev 1

1.4 Power Pan Asm - 2275608

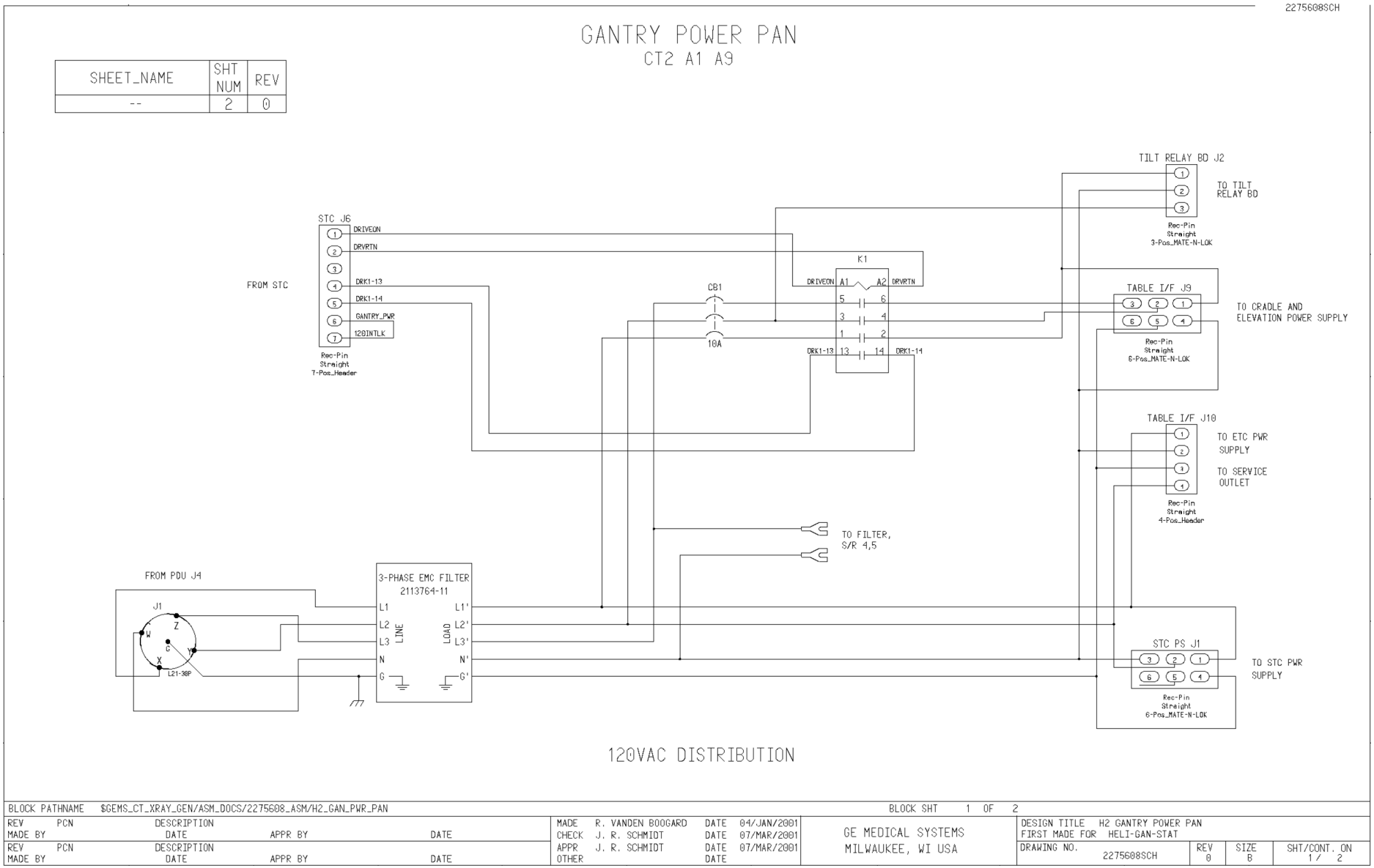


Figure 3-14 2275608, sheet 1, rev 0

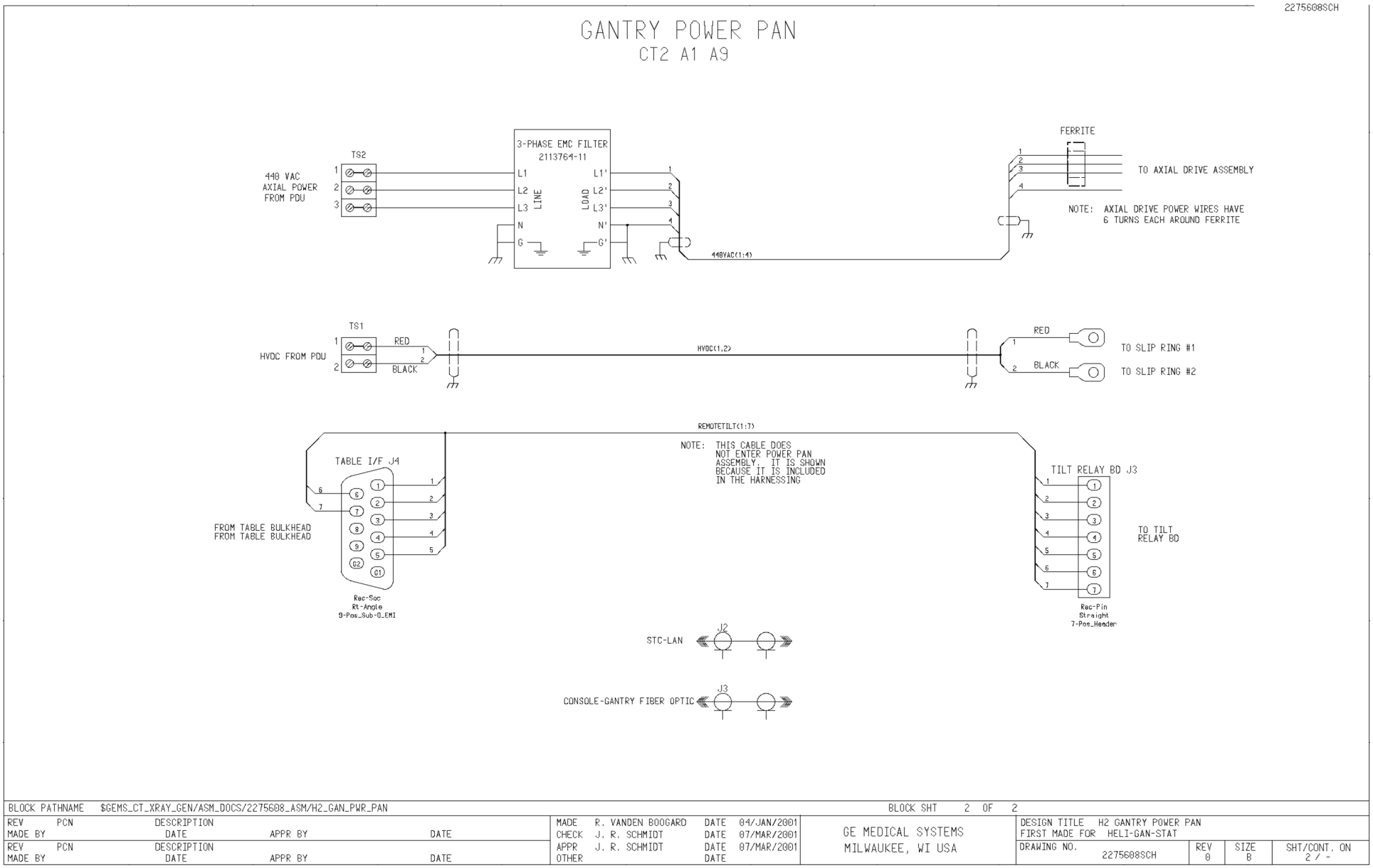


Figure 3-15 2275608, sheet 2, rev 0

Section 2.0 — Axial Dynamic Brake Module - 2266934

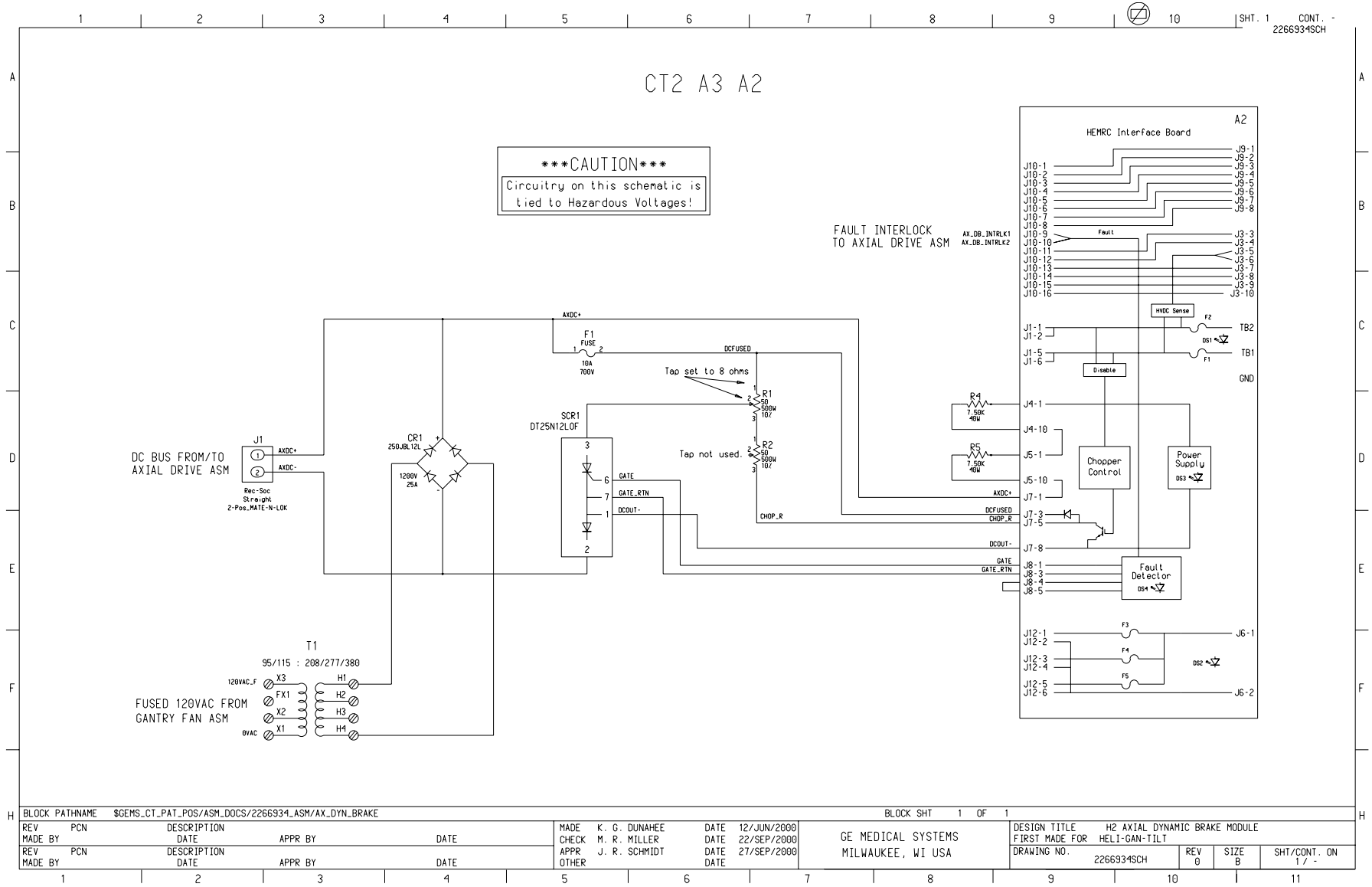


Figure 3-16 2266934, sheet 1, rev 0

Section 3.0 — STC (Stationary Control)

3.1 Axial Board - 2236254

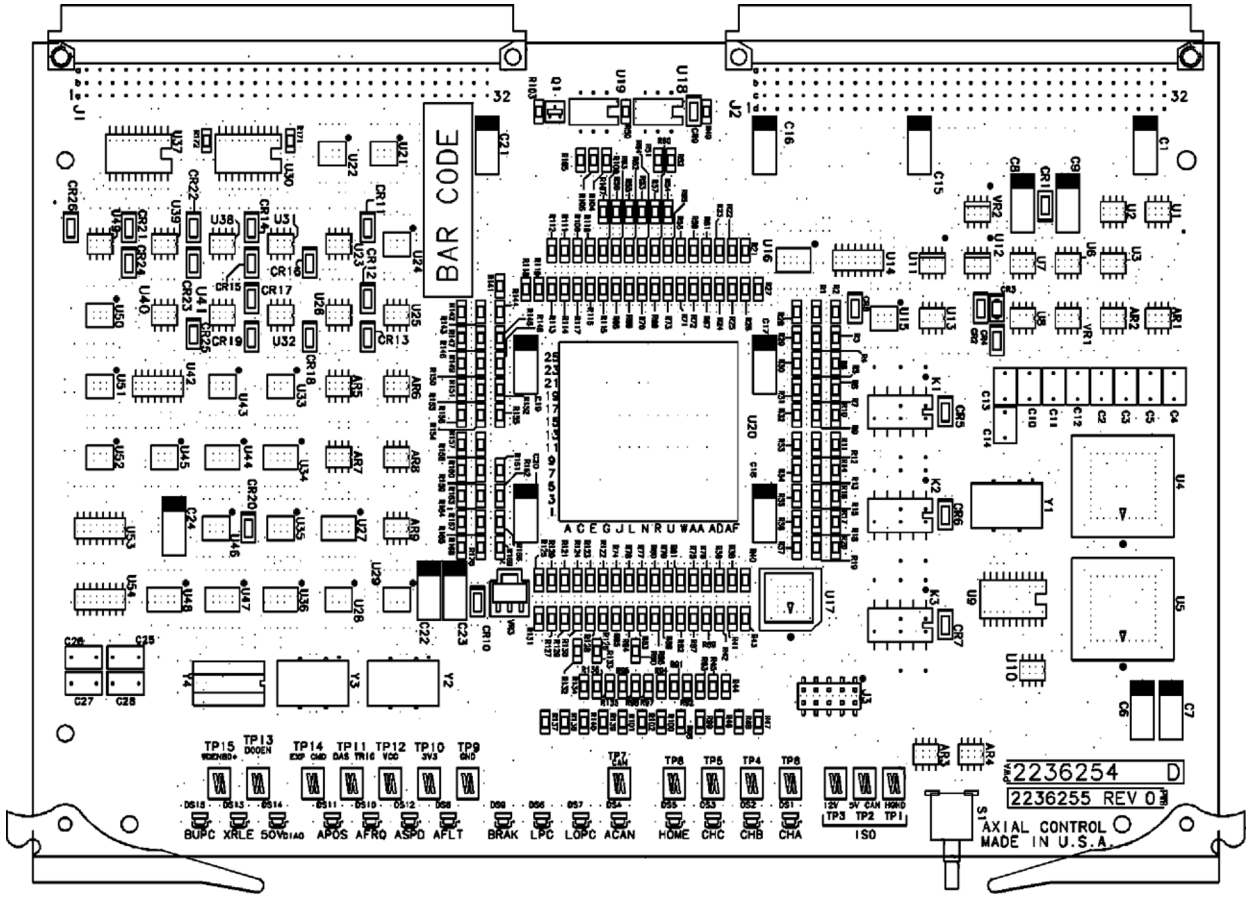
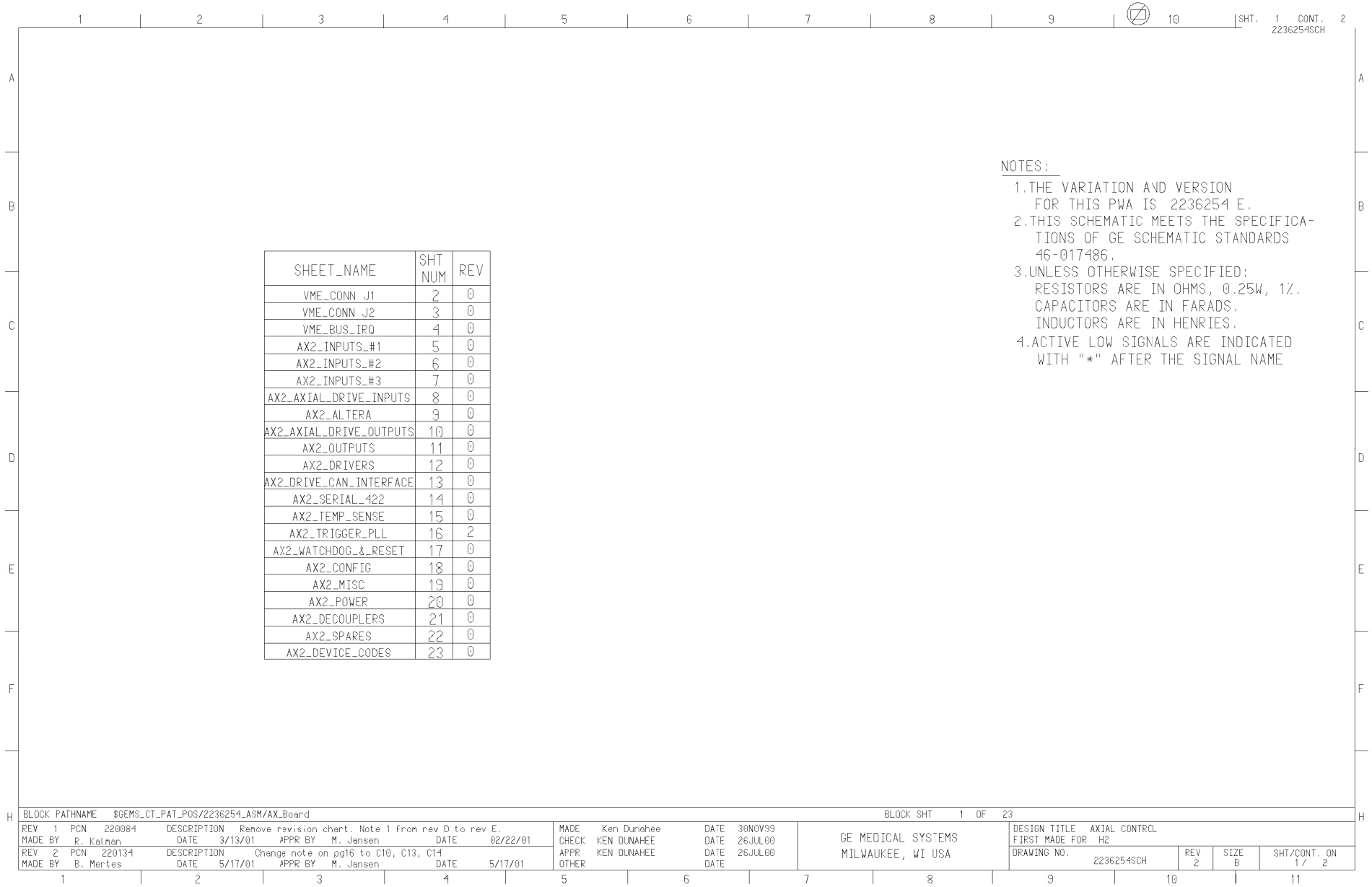


Figure 3-17 Axial Board Layout, Rev 0



SHEET_NAME	SHT NUM	REV
VME_CONN J1	2	0
VME_CONN J2	3	0
VME_BUS_IRQ	4	0
AX2_INPUTS_#1	5	0
AX2_INPUTS_#2	6	0
AX2_INPUTS_#3	7	0
AX2_AXIAL_DRIVE_INPUTS	8	0
AX2_ALTERA	9	0
AX2_AXIAL_DRIVE_OUTPUTS	10	0
AX2_OUTPUTS	11	0
AX2_DRIVERS	12	0
AX2_DRIVE_CAN_INTERFACE	13	0
AX2_SERIAL_422	14	0
AX2_TEMP_SENSE	15	0
AX2_TRIGGER_PLL	16	2
AX2_WATCHDOG_&_RESET	17	0
AX2_CONFIG	18	0
AX2_MISC	19	0
AX2_POWER	20	0
AX2_DECOUPLERS	21	0
AX2_SPARES	22	0
AX2_DEVICE_CODES	23	0

Figure 3-18 2236254 Axial Board, sheet 1, rev 2

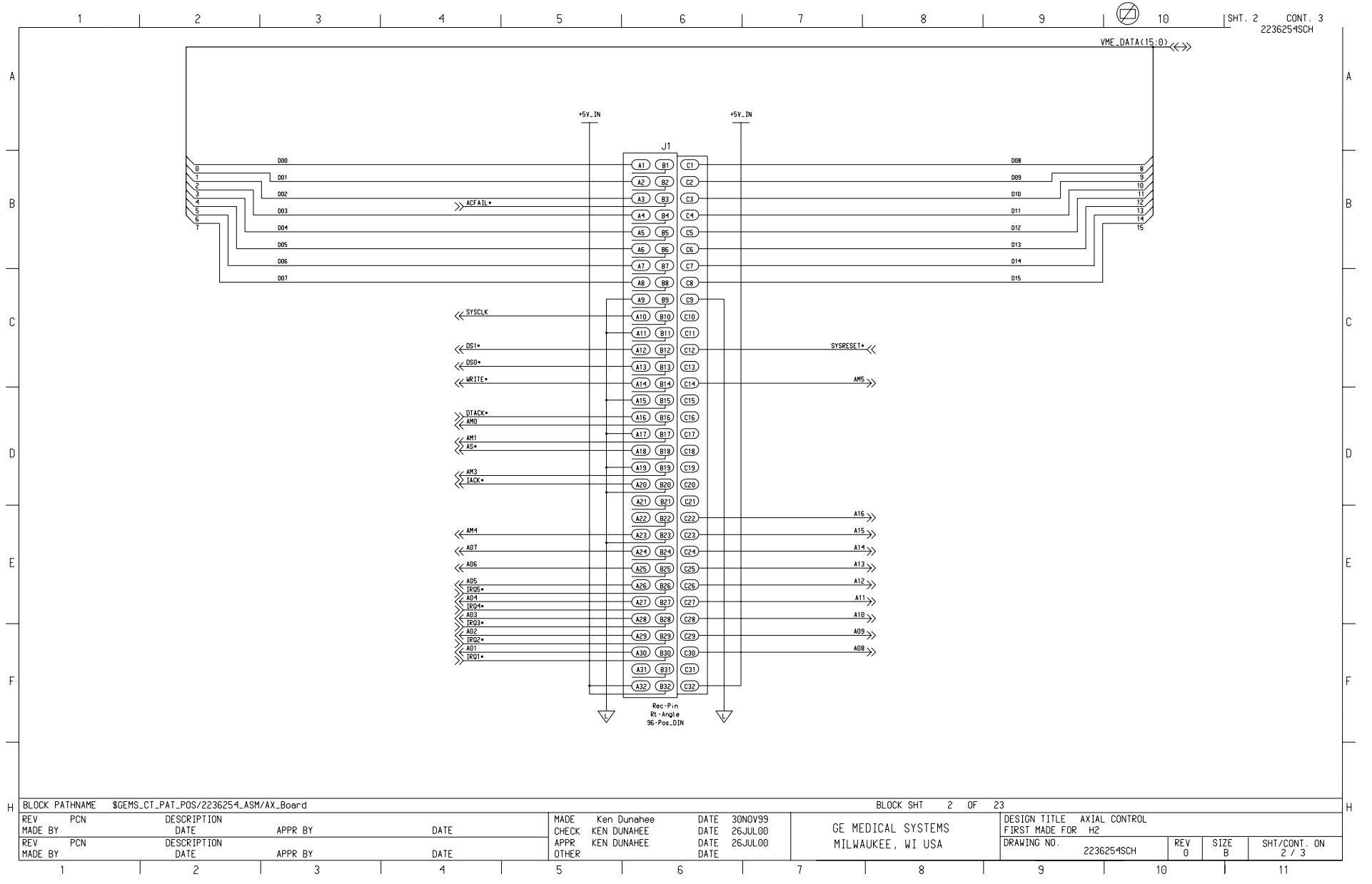


Figure 3-19 2236254 Axial Board, sheet 2, rev 0

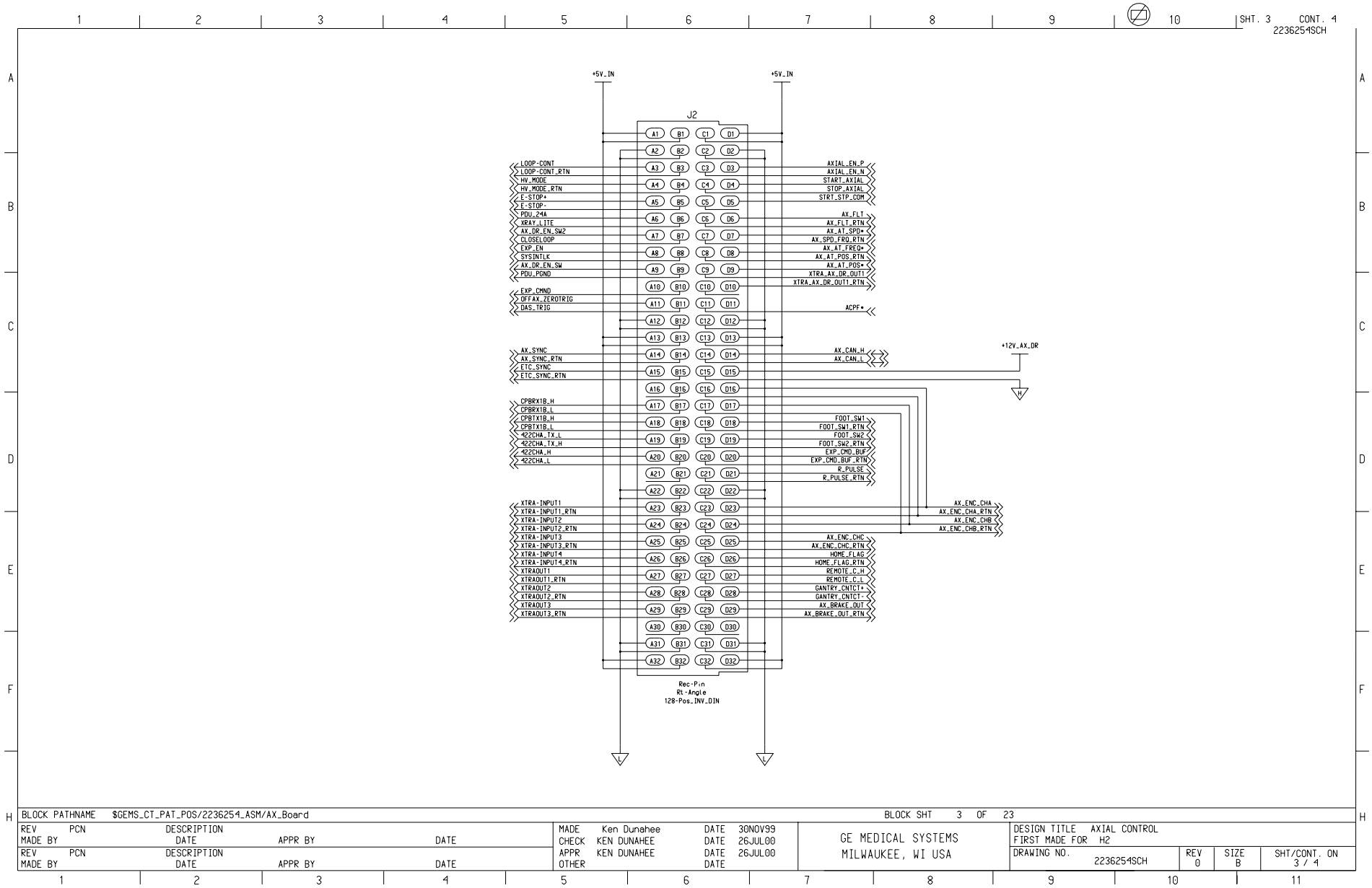


Figure 3-20 2236254 Axial Board, sheet 3, rev 0

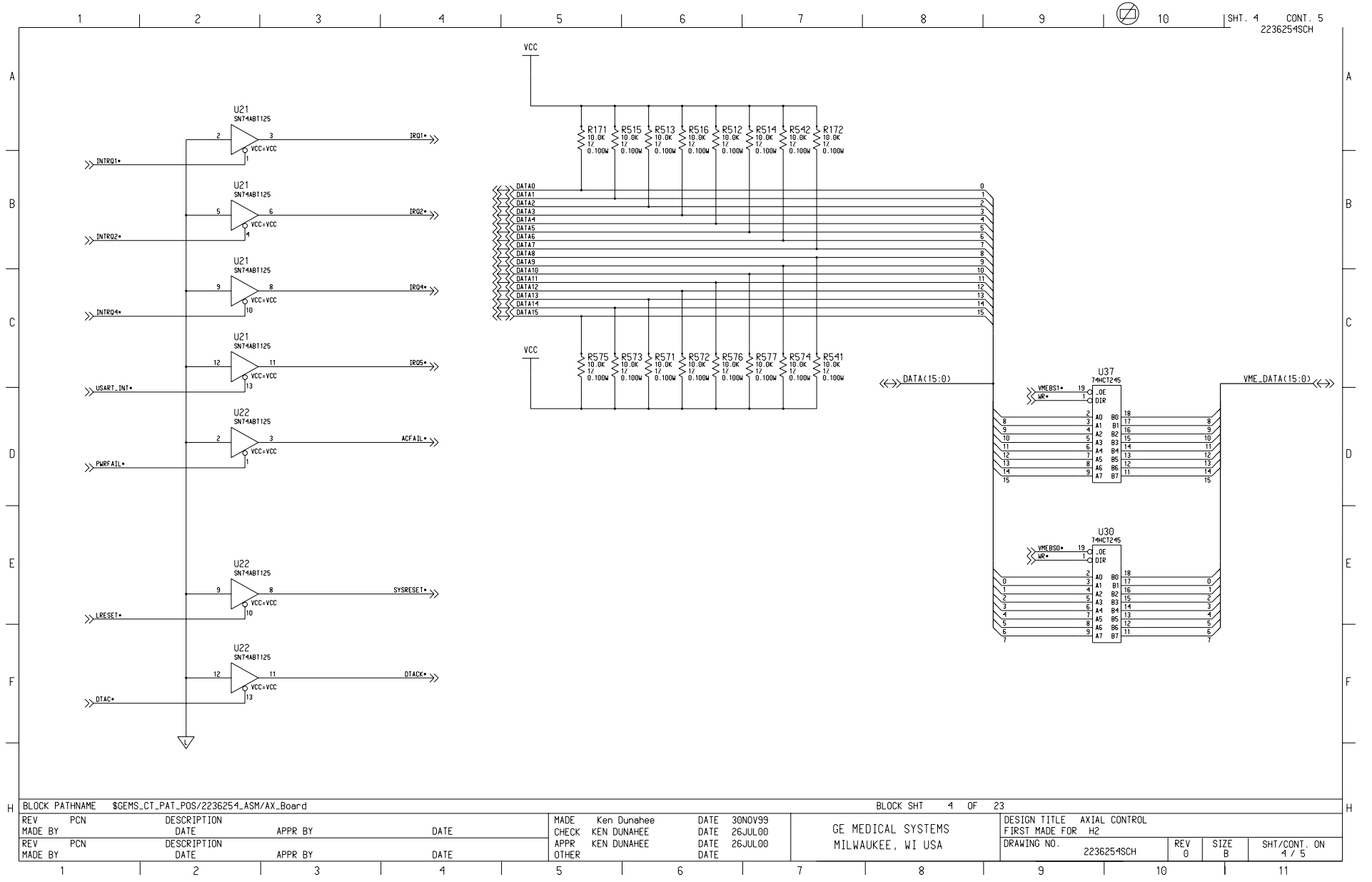


Figure 3-21 2236254 Axial Board, sheet 4, rev 0

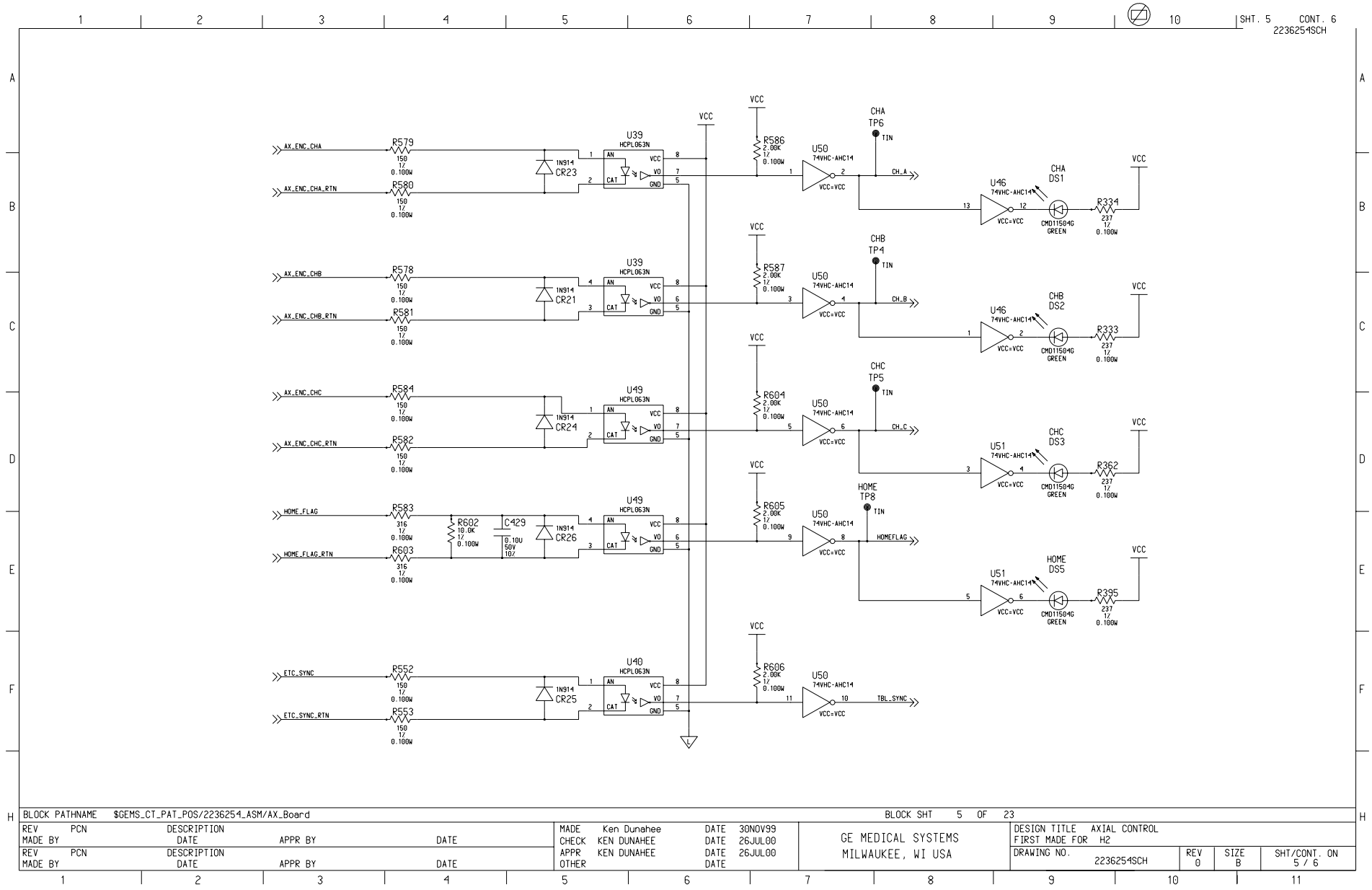


Figure 3-22 2236254 Axial Board, sheet 5, rev 0

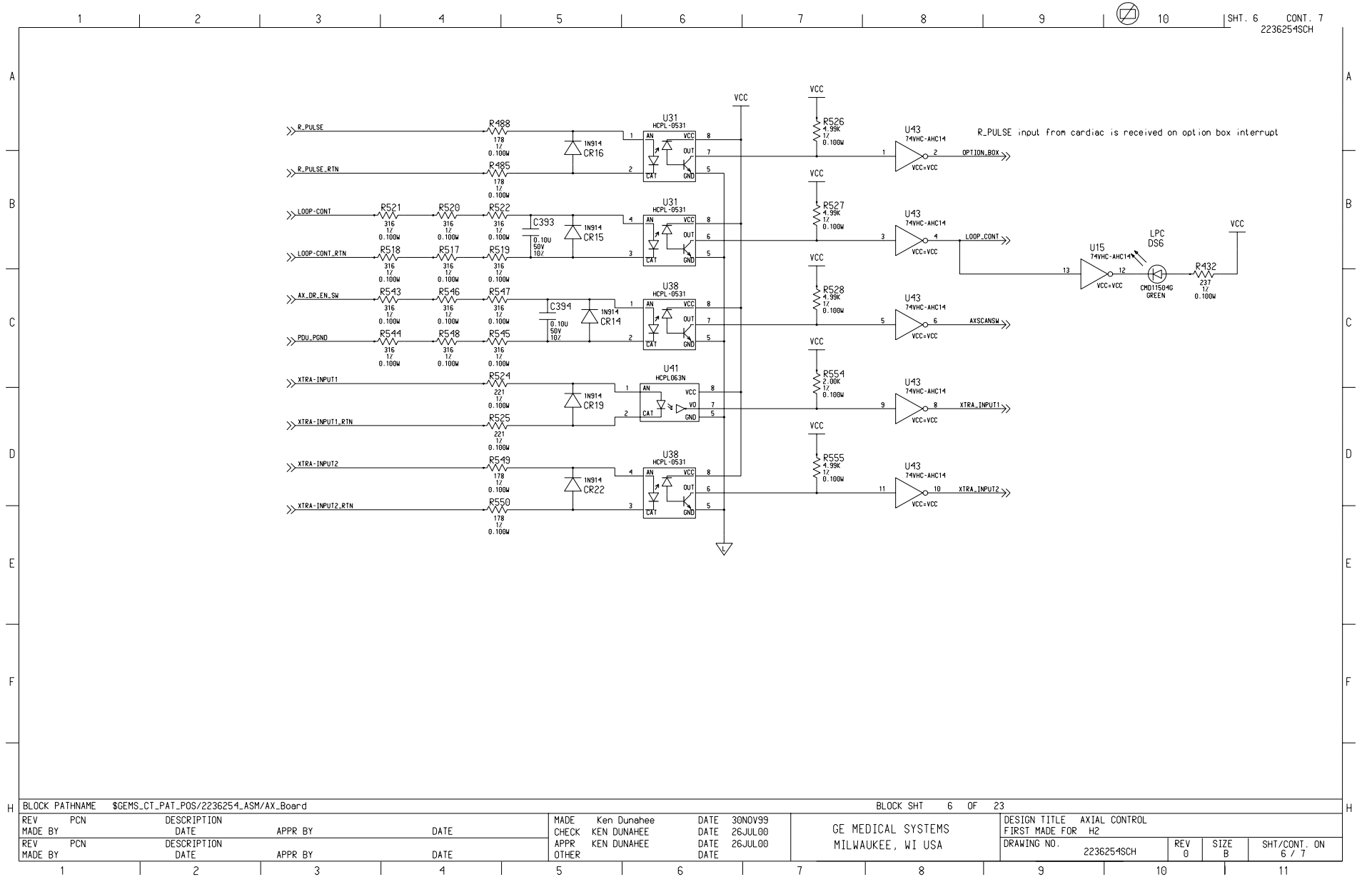


Figure 3-23 2236254 Axial Board, sheet 6, rev 0

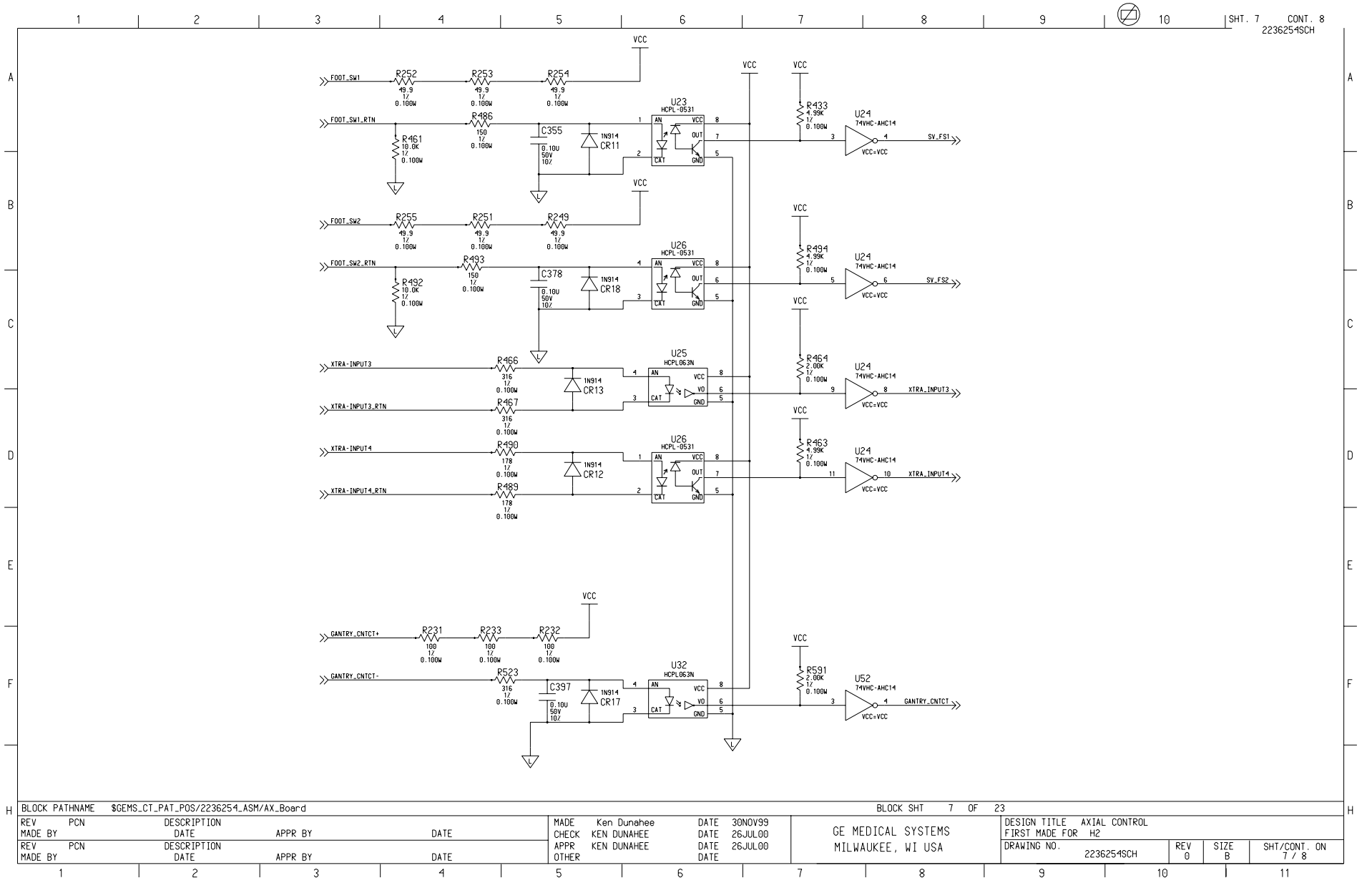


Figure 3-24 2236254 Axial Board, sheet 7, rev 0

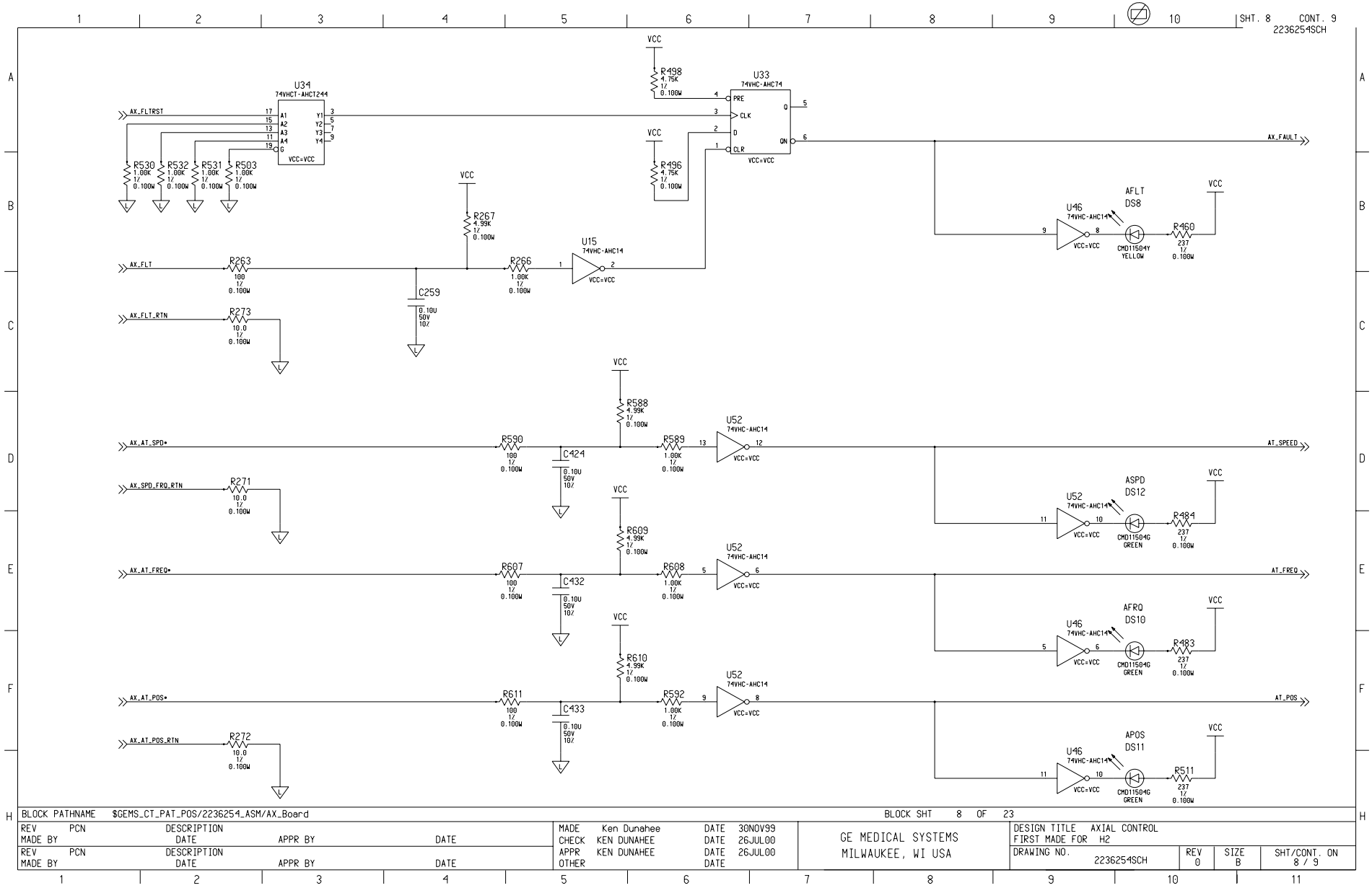


Figure 3-25 2236254 Axial Board, sheet 8, rev 0

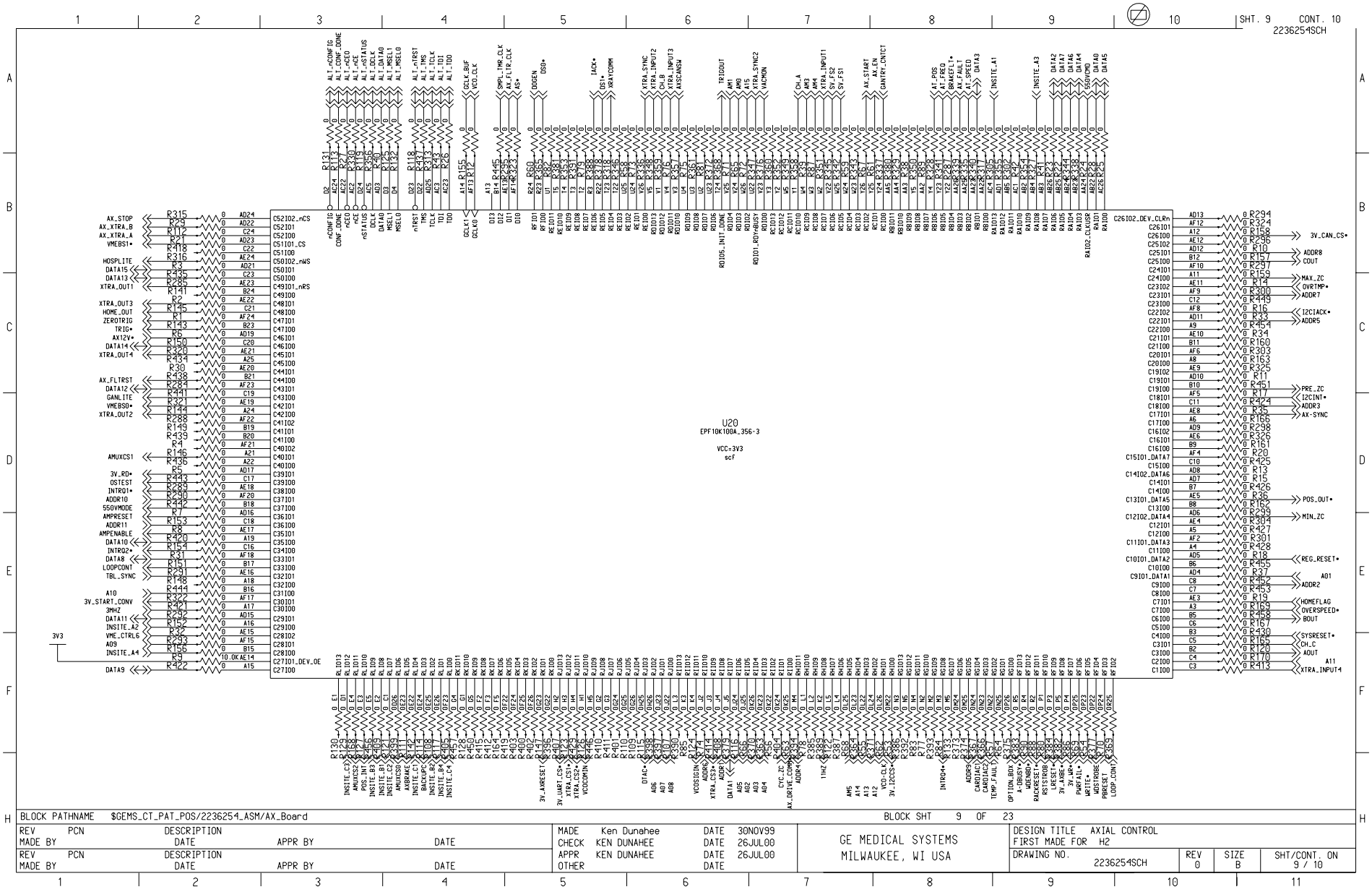


Figure 3-26 2236254 Axial Board, sheet 9, rev 0

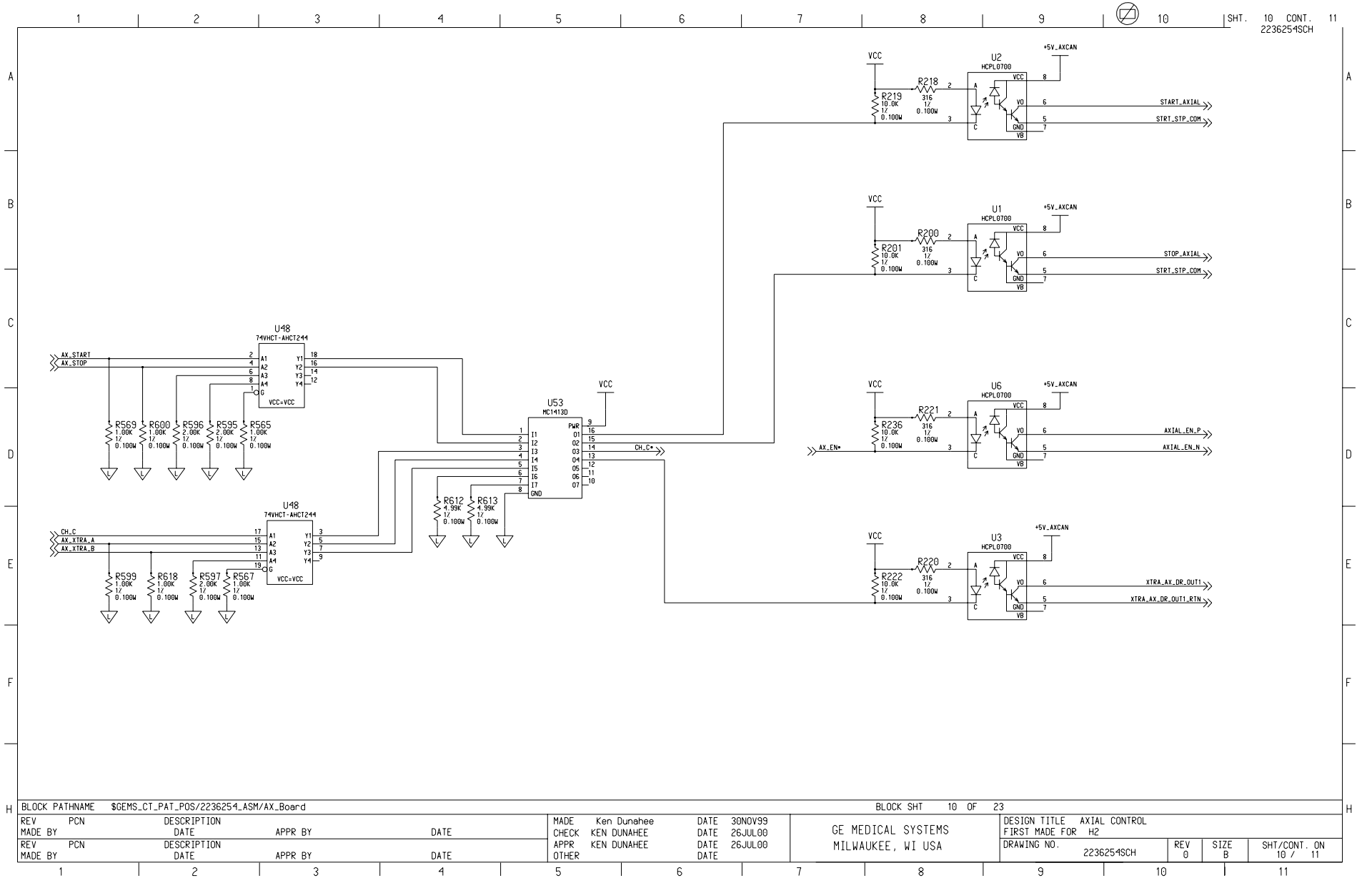


Figure 3-27 2236254 Axial Board, sheet 10, rev 0

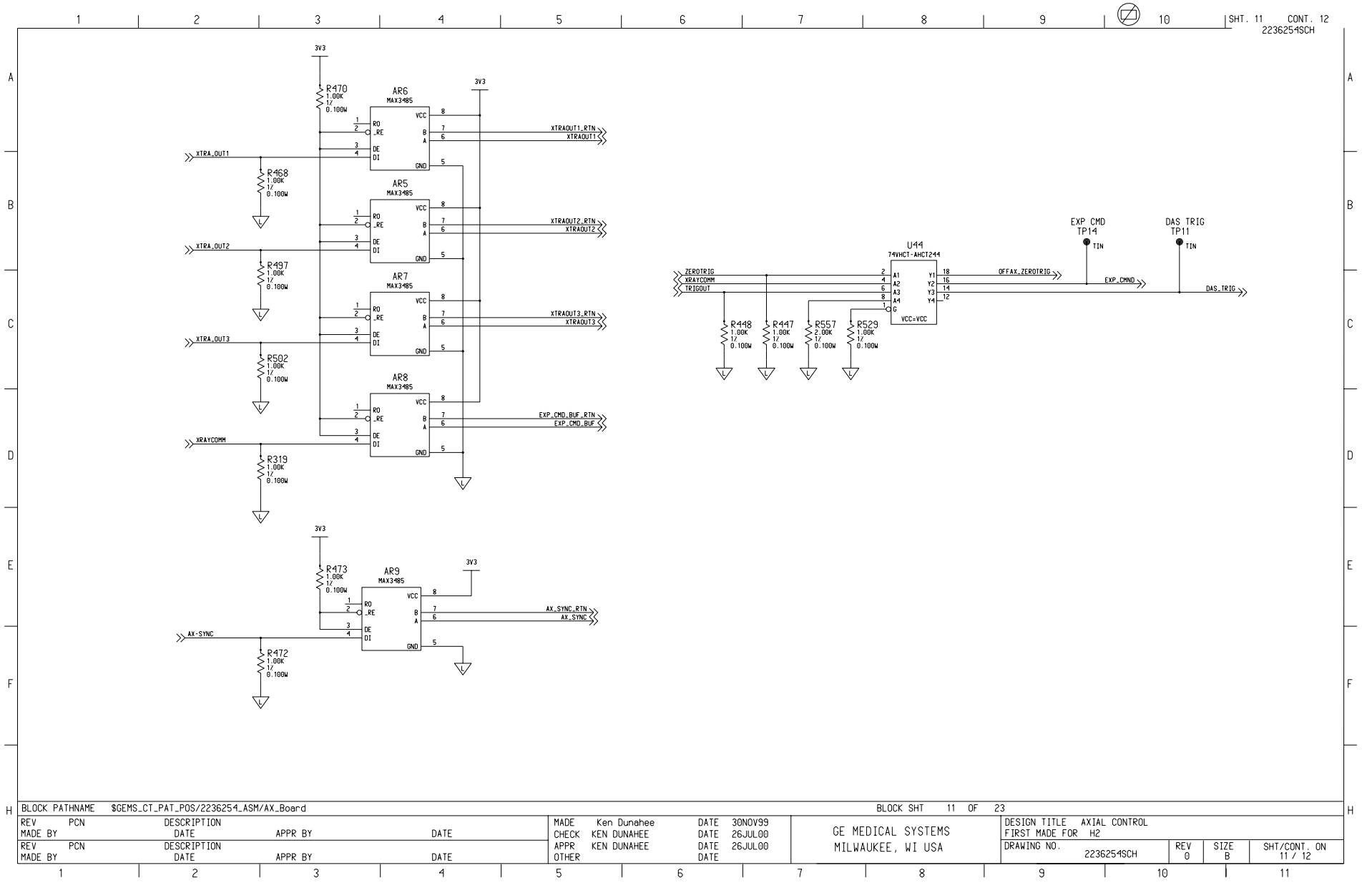


Figure 3-28 2236254 Axial Board, sheet 11, rev 0

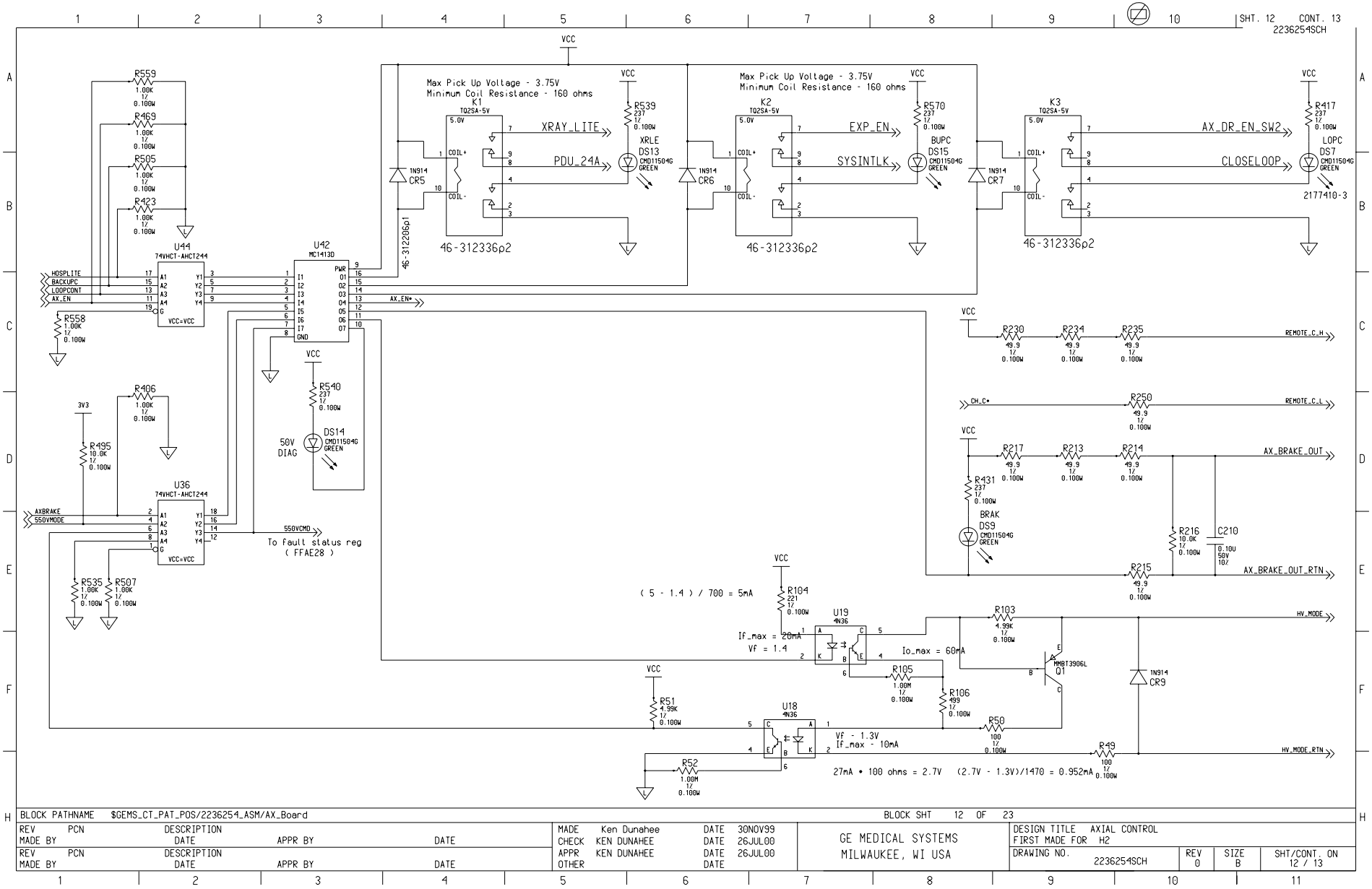


Figure 3-29 2236254 Axial Board, sheet 12, rev 0

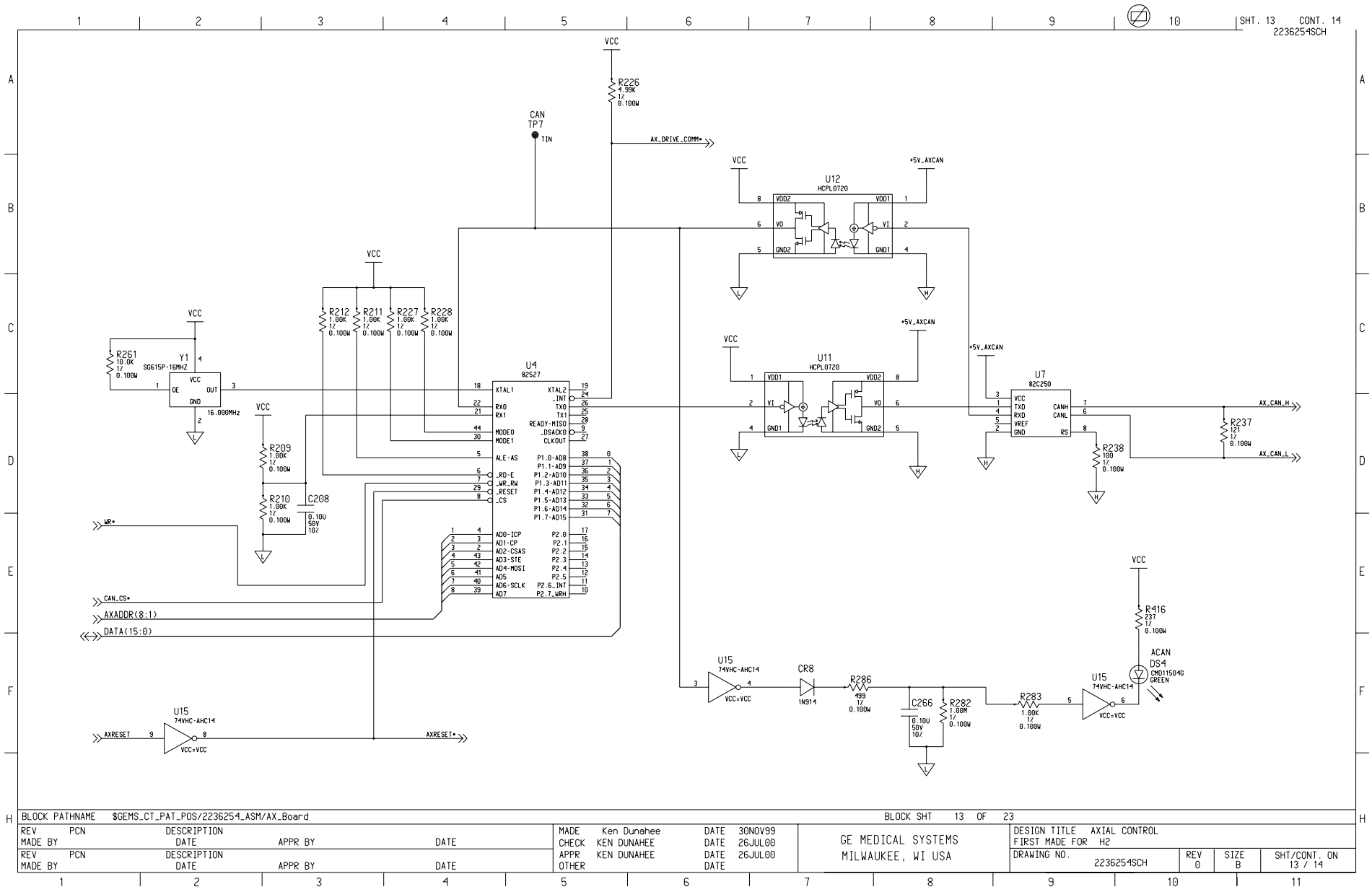


Figure 3-30 2236254 Axial Board, sheet 13, rev 0

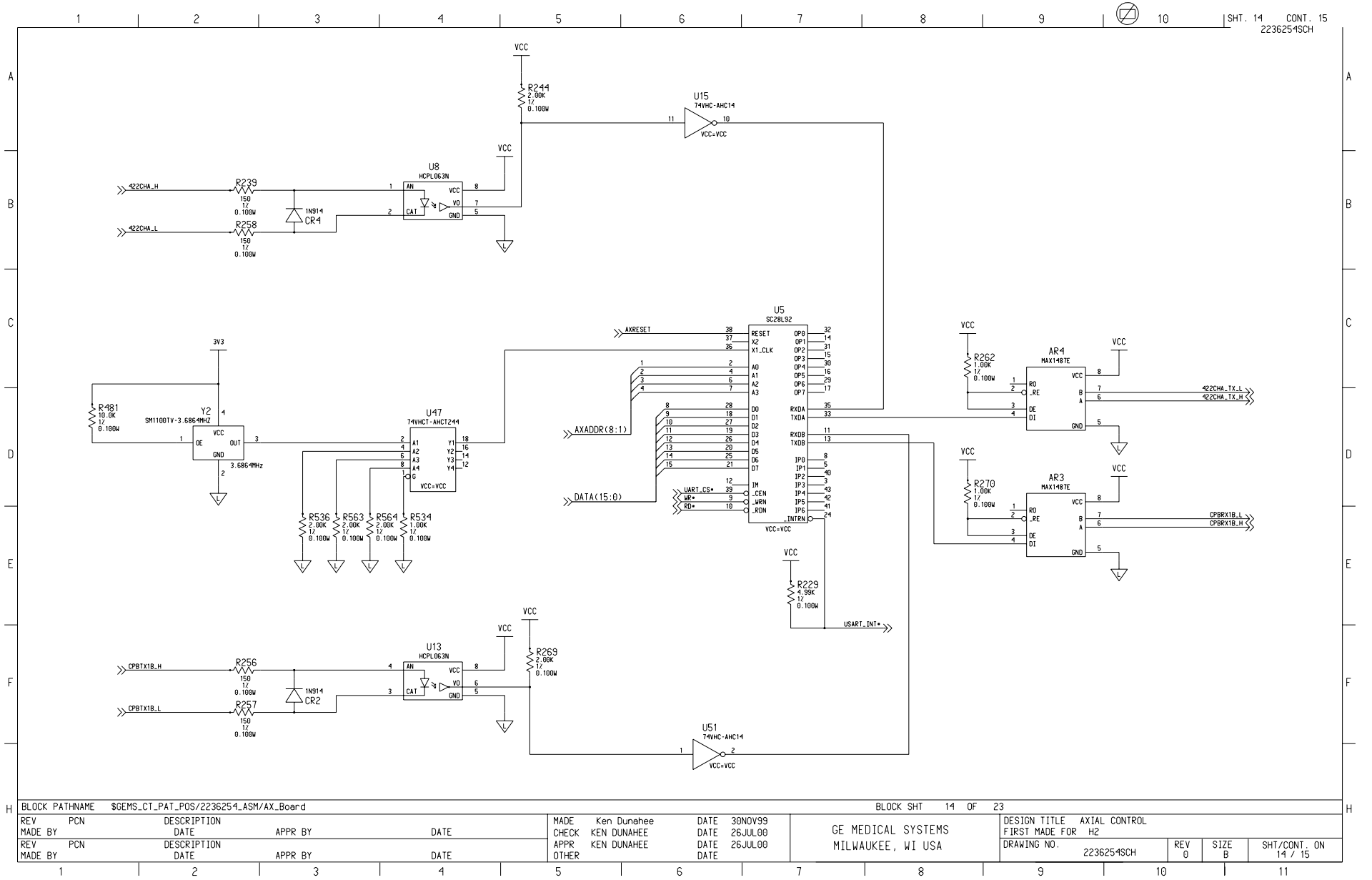


Figure 3-31 2236254 Axial Board, sheet 14, rev 0

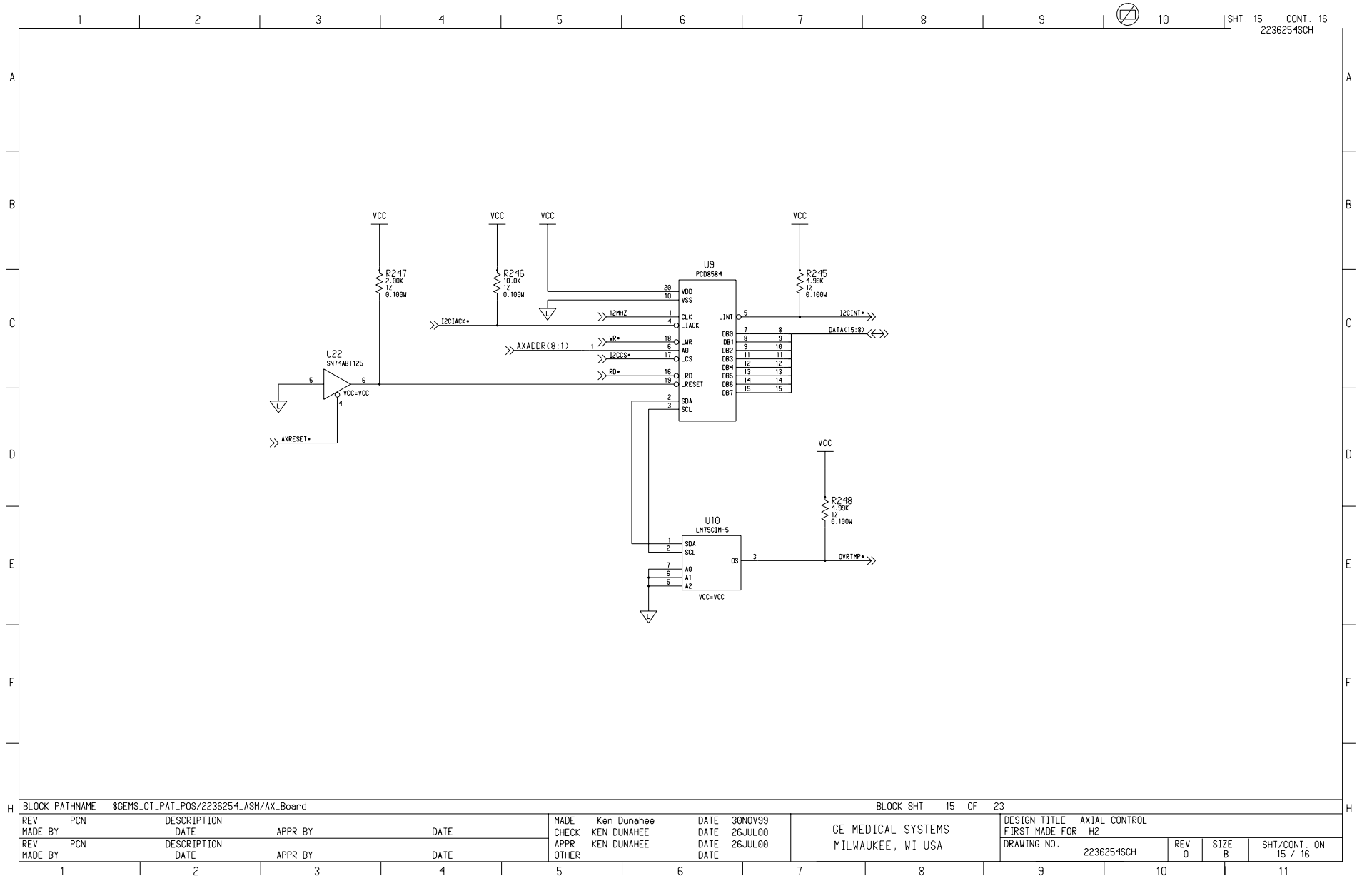


Figure 3-32 2236254 Axial Board, sheet 15, rev 0

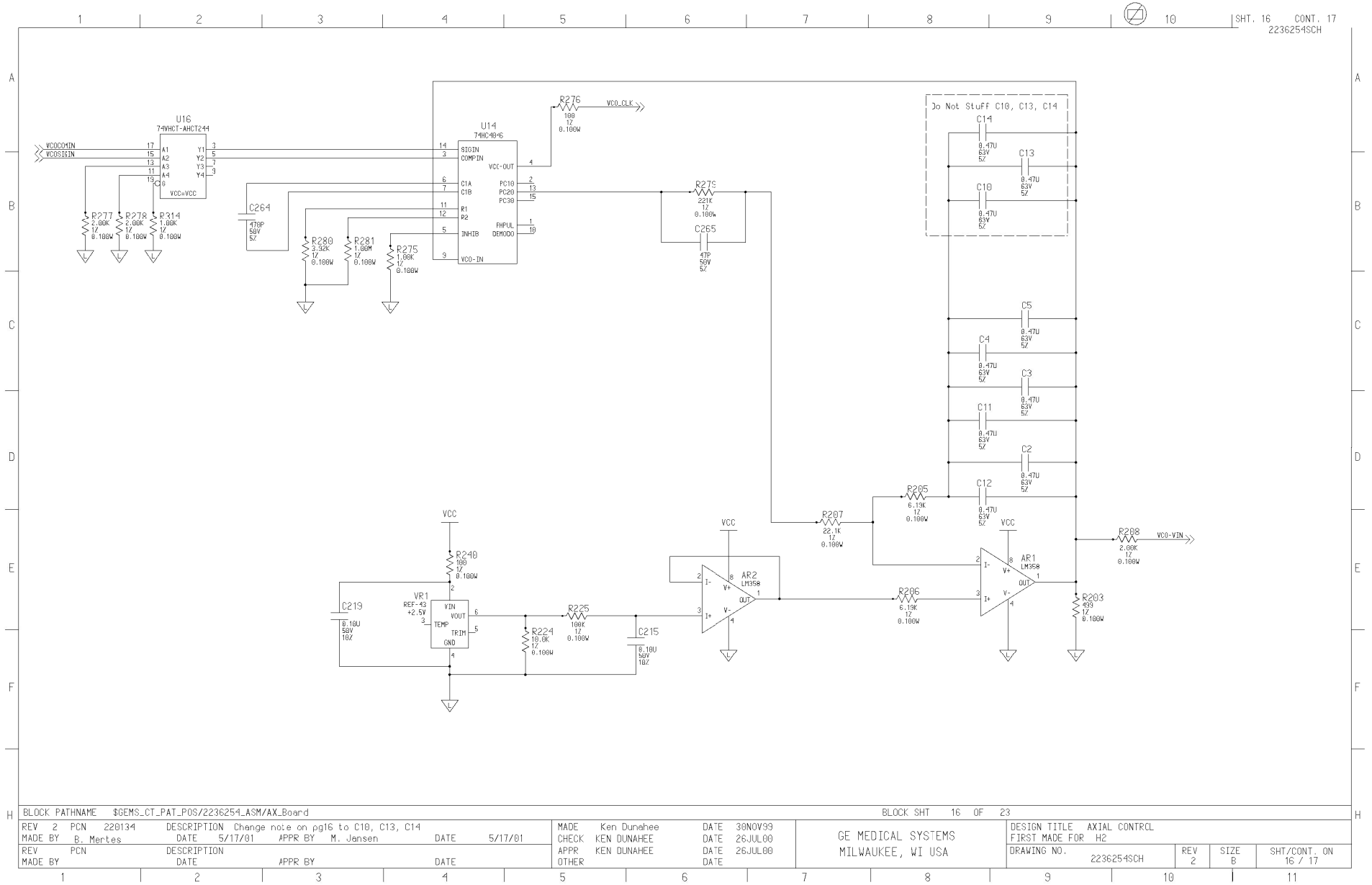


Figure 3-33 2236254 Axial Board, sheet 16, rev 2

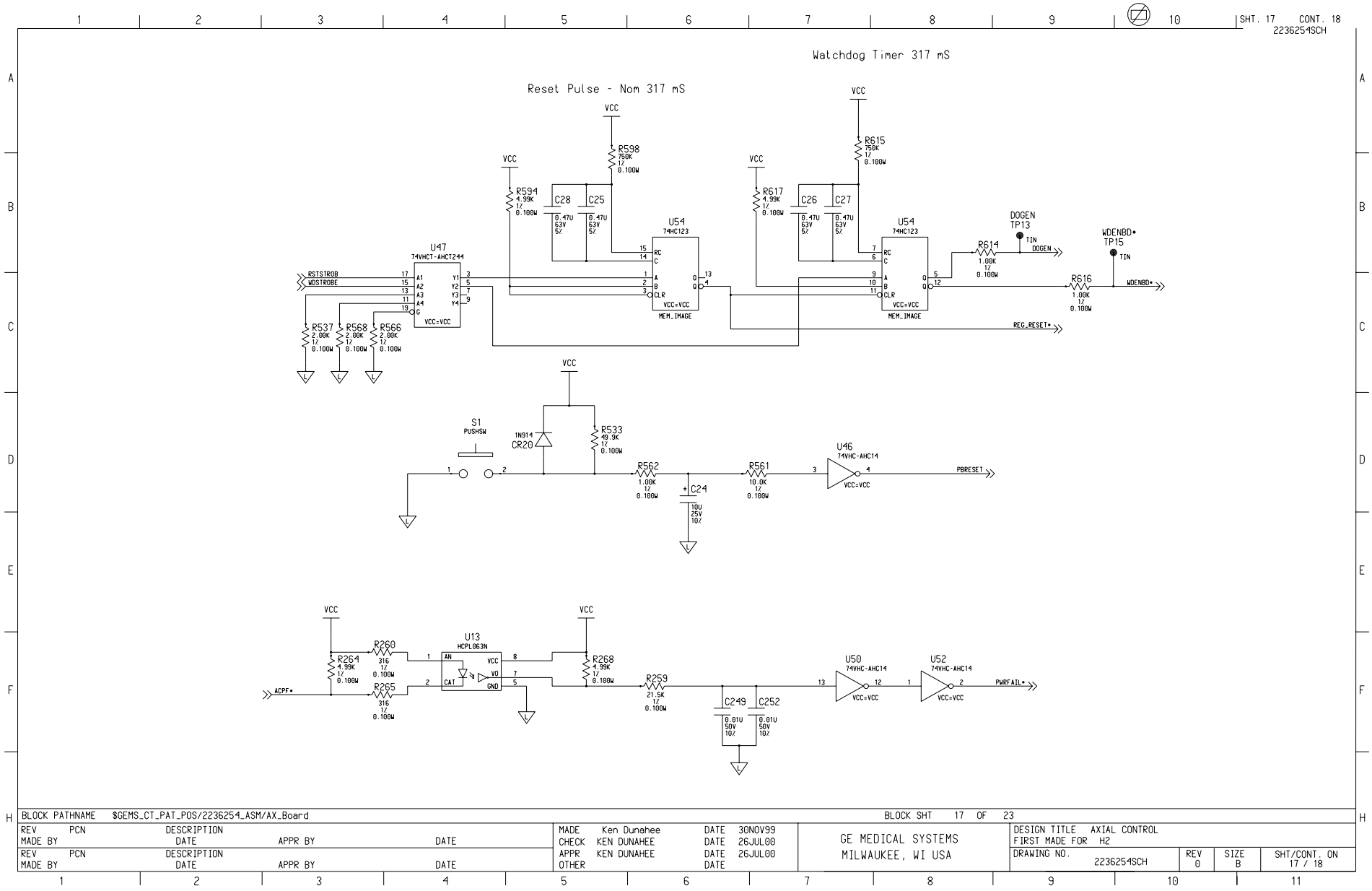


Figure 3-34 2236254 Axial Board, sheet 17, rev 0

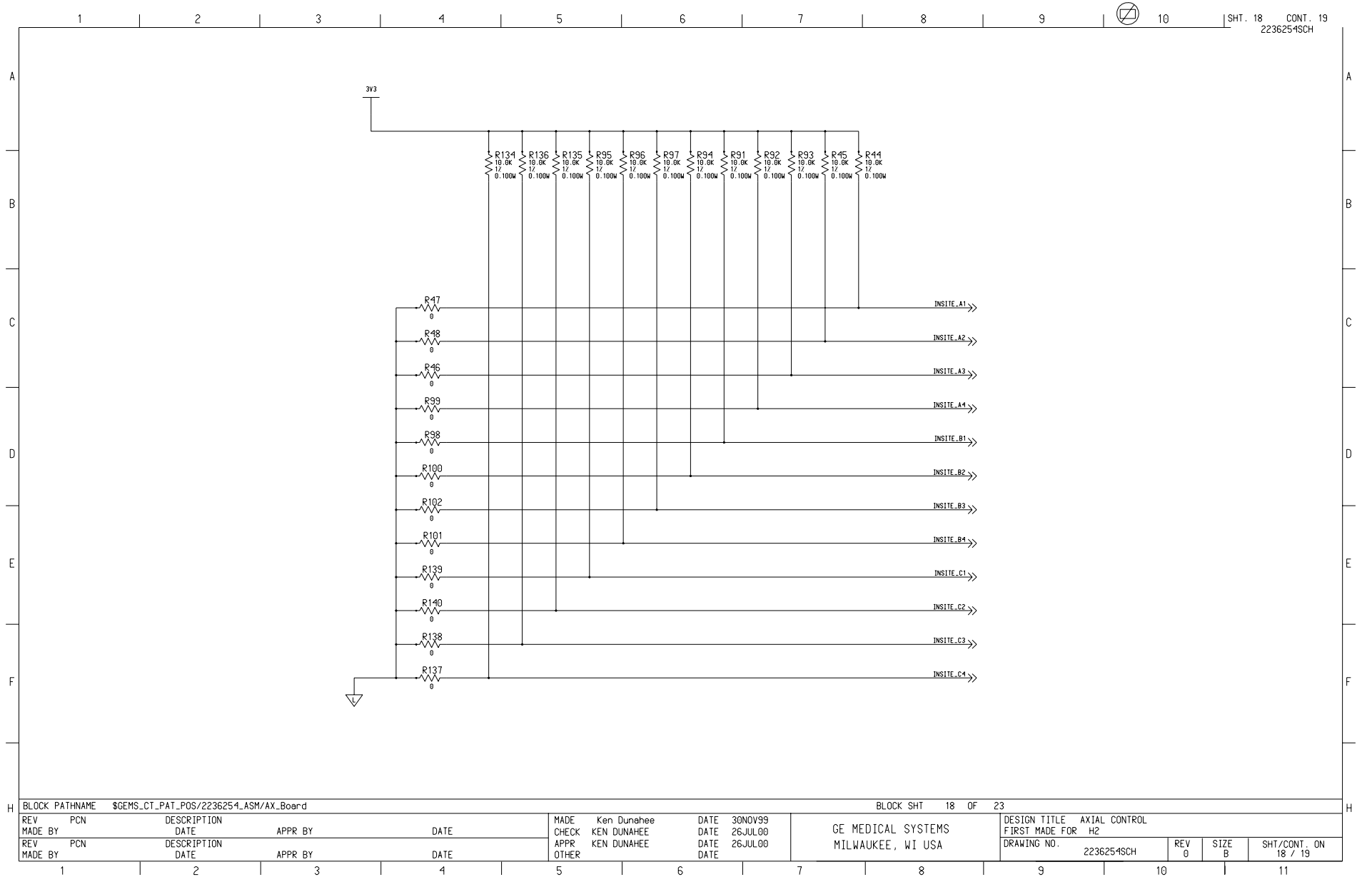


Figure 3-35 2236254 Axial Board, sheet 18, rev 0

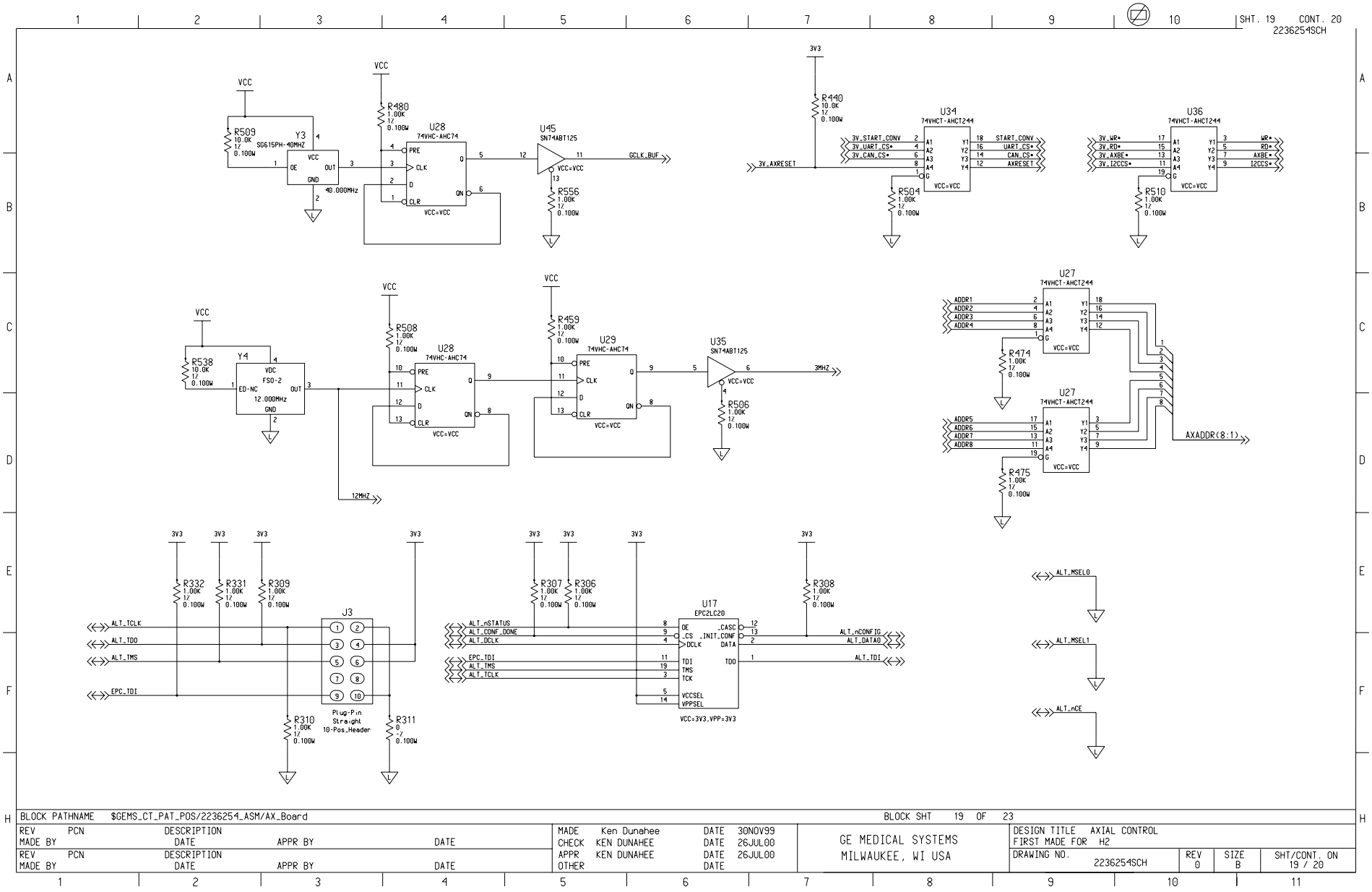


Figure 3-36 2236254 Axial Board, sheet 19, rev 0

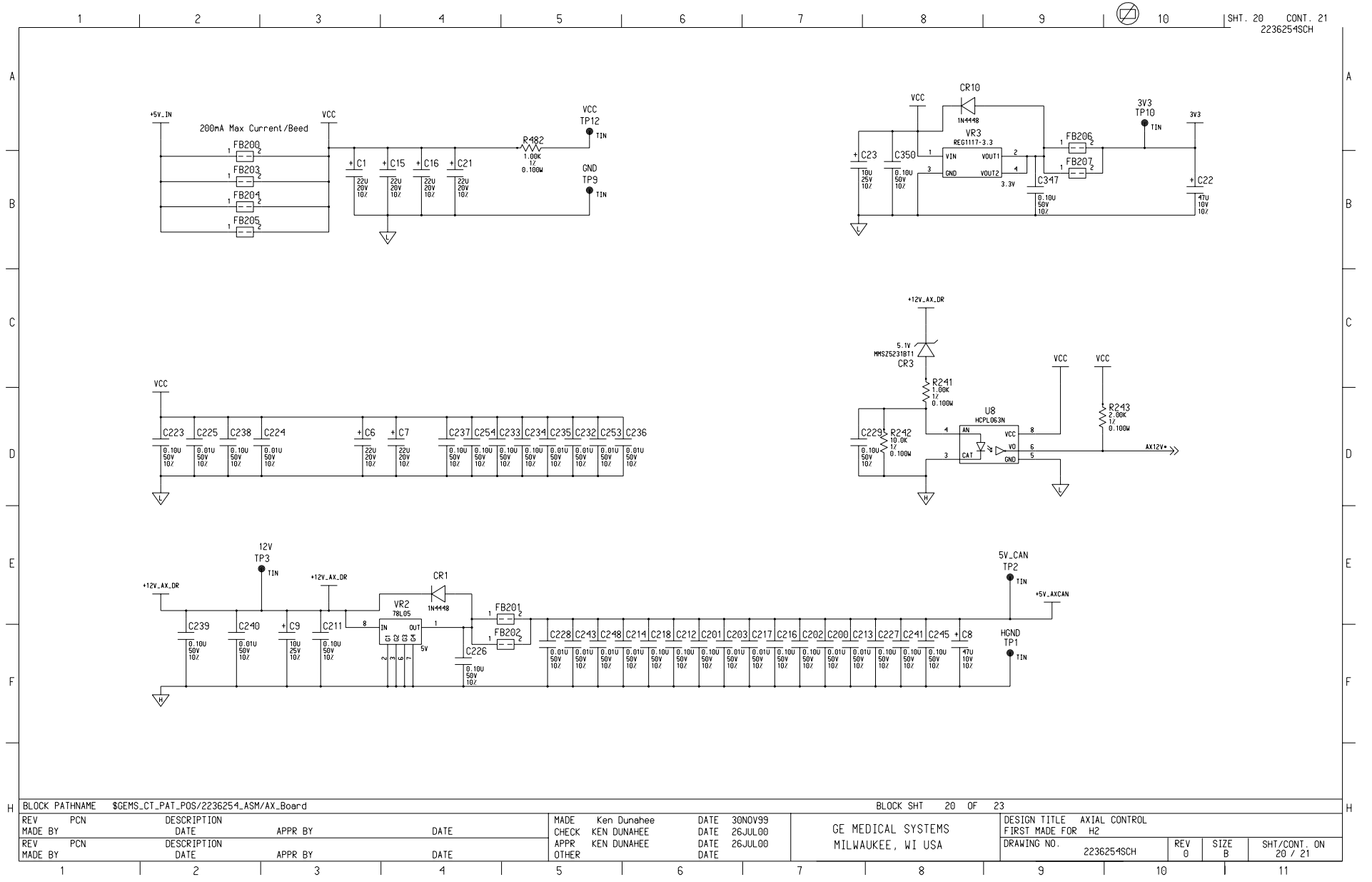


Figure 3-37 2236254 Axial Board, sheet 20, rev 0

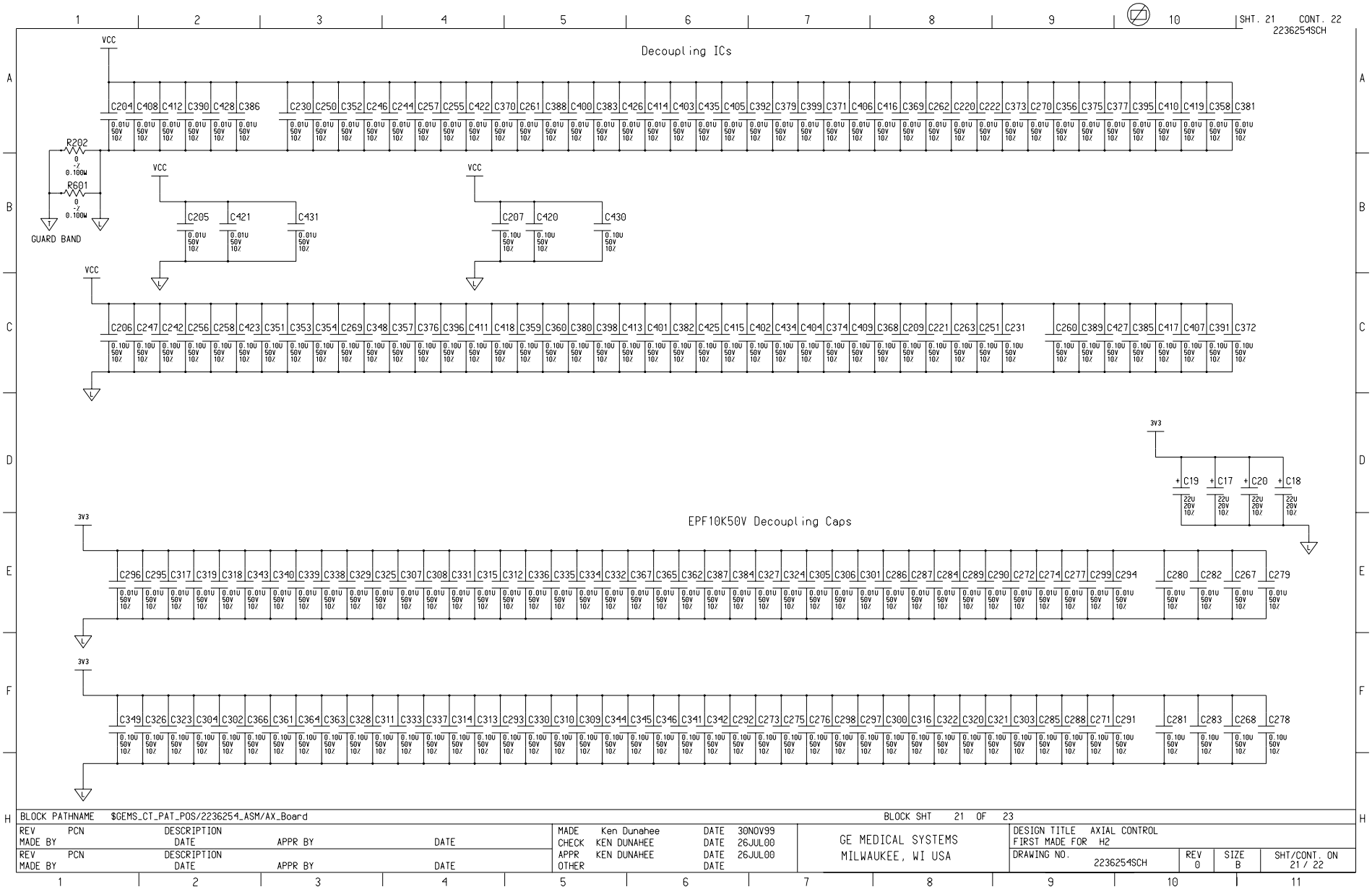


Figure 3-38 2236254 Axial Board, sheet 21, rev 0

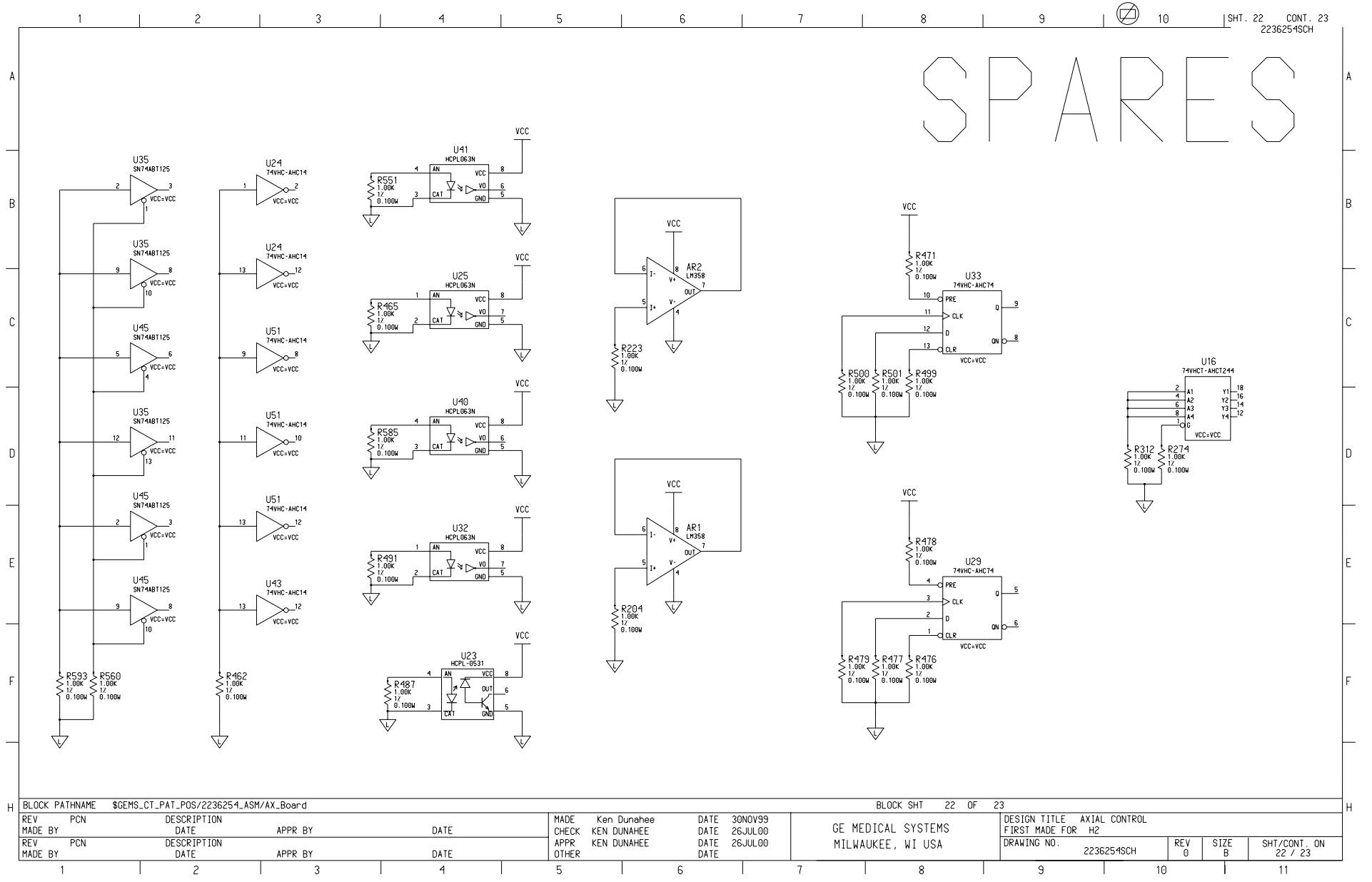


Figure 3-39 2236254 Axial Board, sheet 22, rev 0

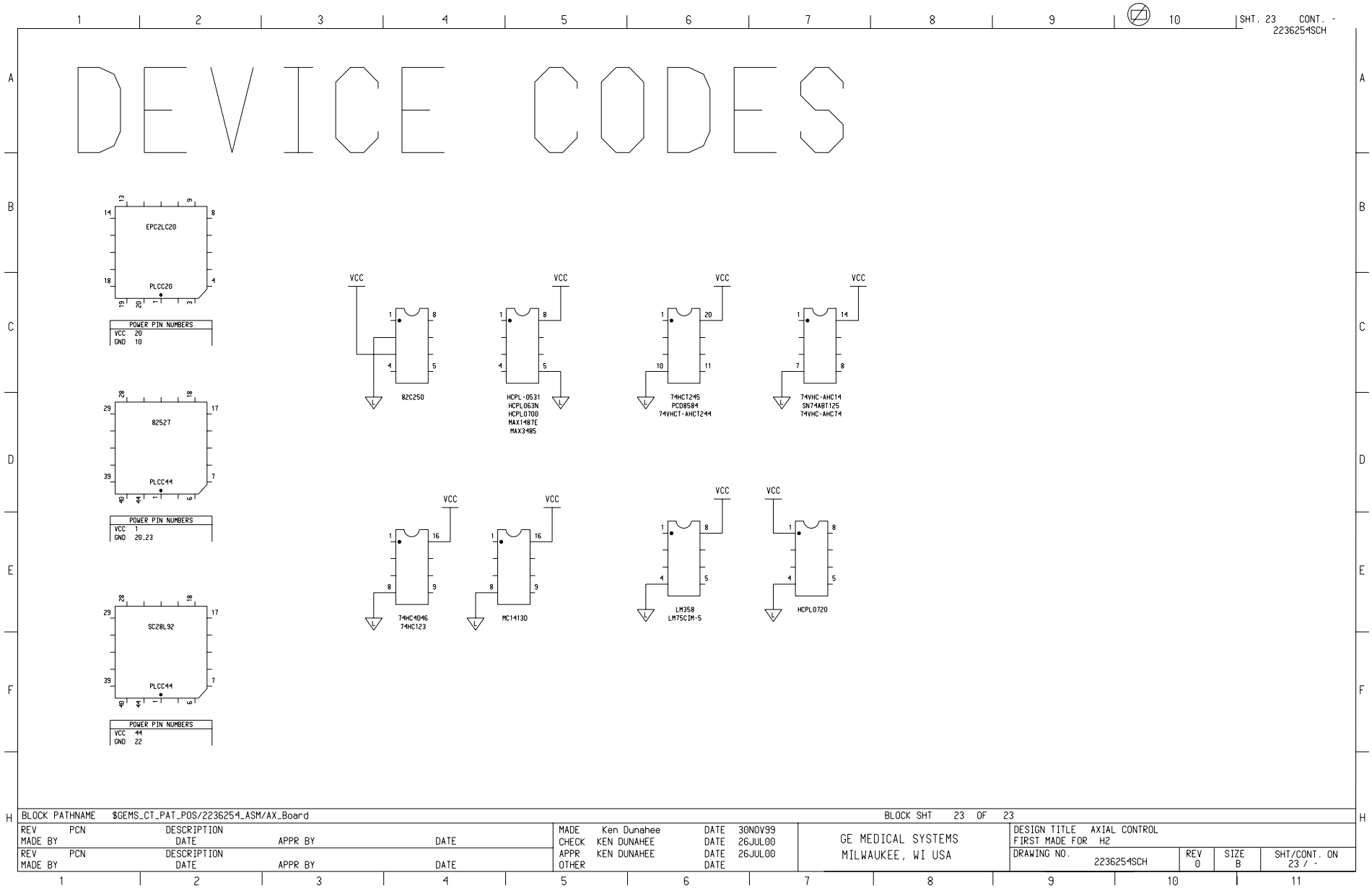


Figure 3-40 2236254 Axial Board, sheet 23, rev 0

3.2 LSCOM Board - 2233488

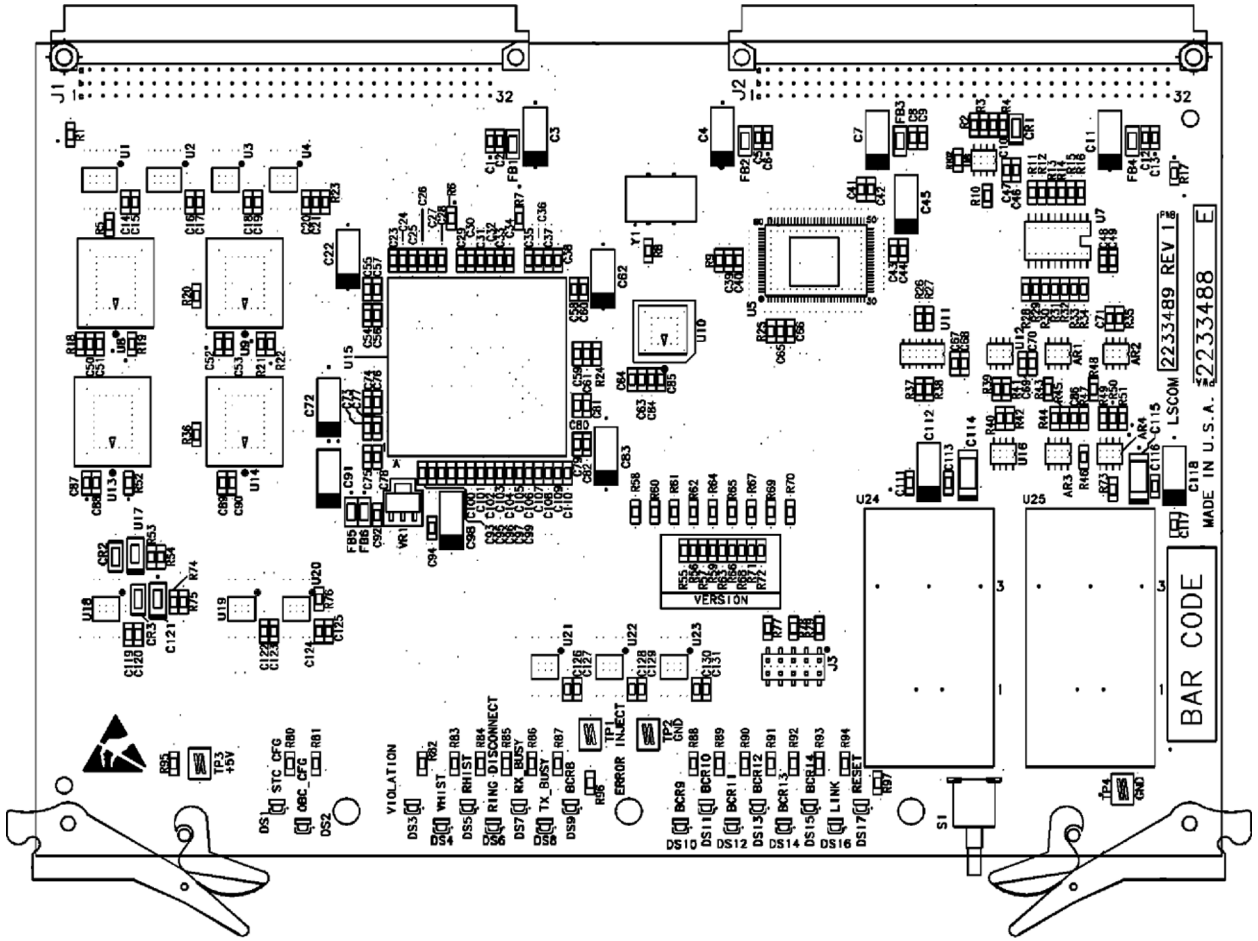
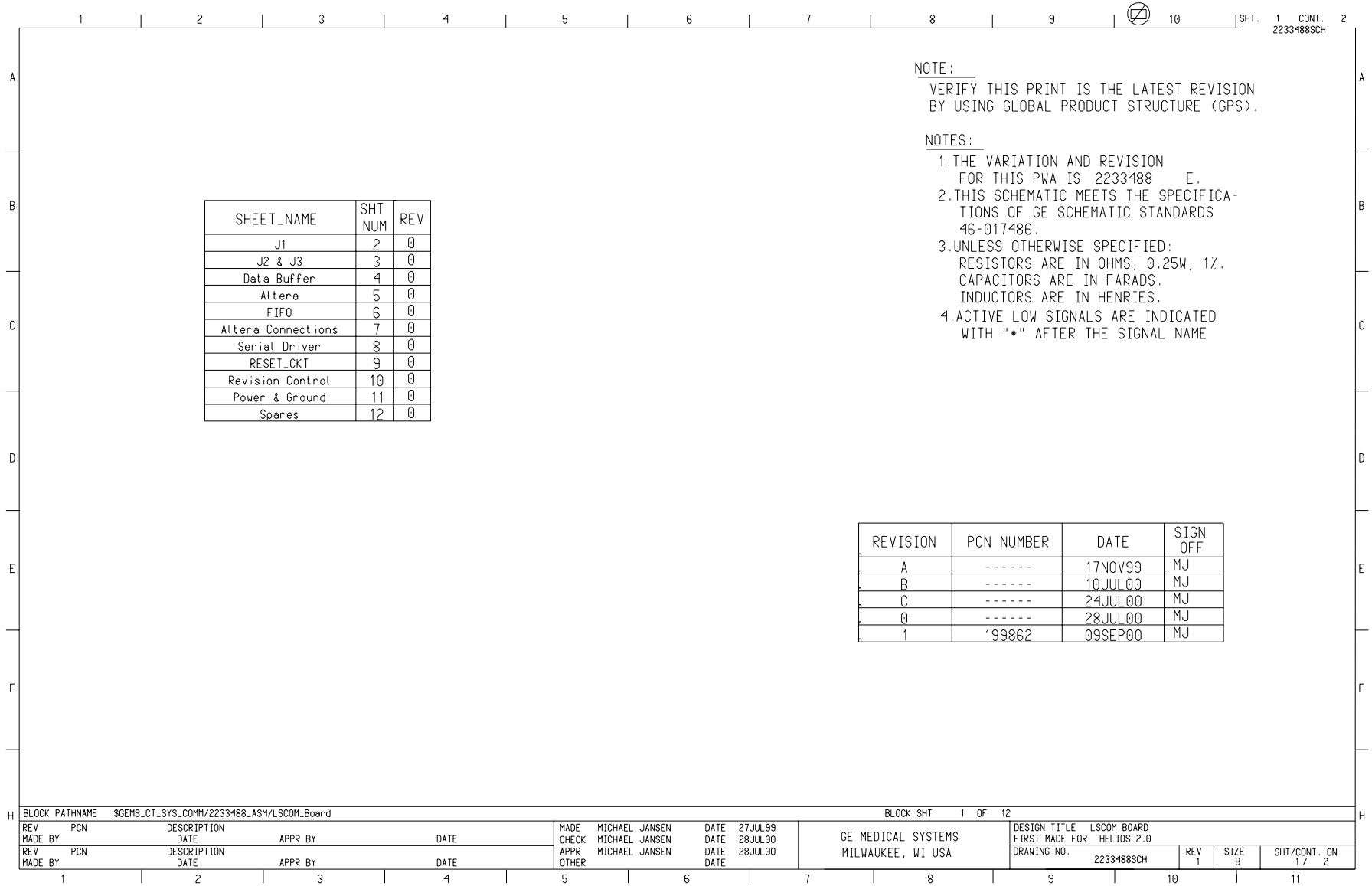


Figure 3-41 LSCOM Board Layout, Rev. 1



SHEET_NAME	SHT NUM	REV
J1	2	0
J2 & J3	3	0
Data Buffer	4	0
Altera	5	0
FIFO	6	0
Altera Connections	7	0
Serial Driver	8	0
RESET_CKT	9	0
Revision Control	10	0
Power & Ground	11	0
Spares	12	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	17NOV99	MJ
B	------	10JUL00	MJ
C	------	24JUL00	MJ
0	------	28JUL00	MJ
1	199862	09SEP00	MJ

Figure 3-42 2233488 LSCOM Board, sheet 1, rev 1

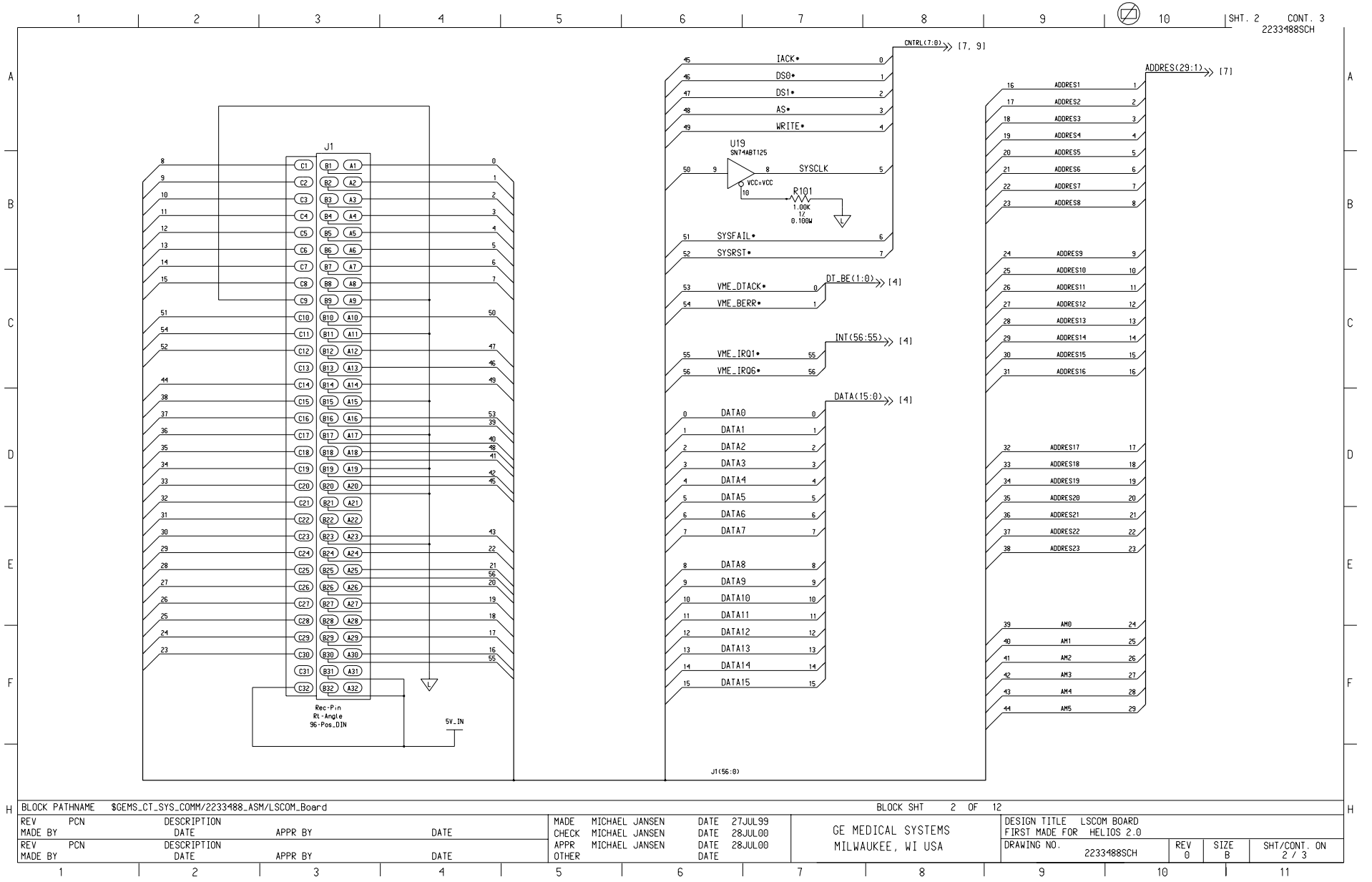


Figure 3-43 2233488 LSCOM Board, sheet 2, rev 0

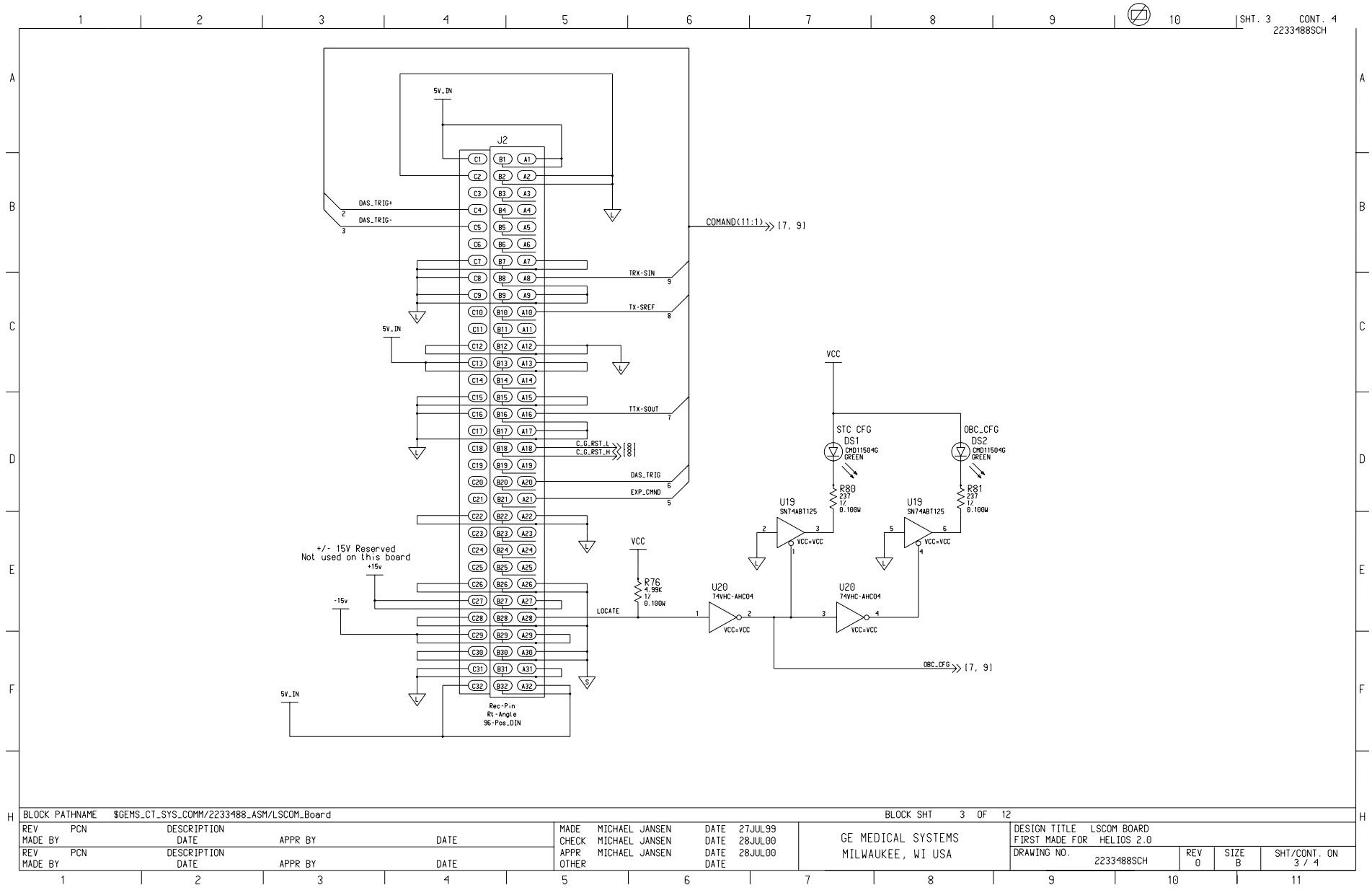


Figure 3-44 2233488 LSCOM Board, sheet 3, rev 0

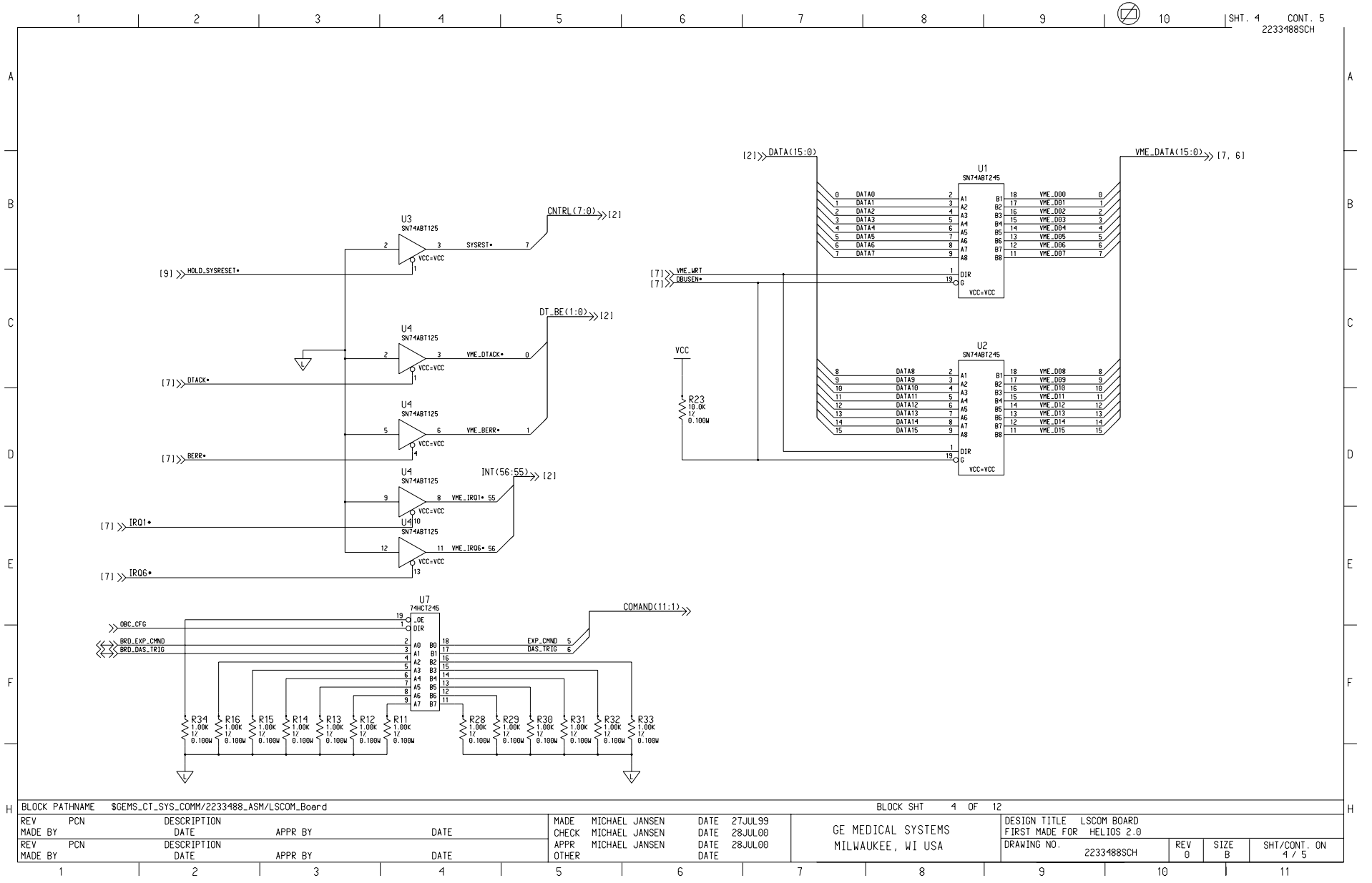


Figure 3-45 2233488 LSCOM Board, sheet 4, rev 0

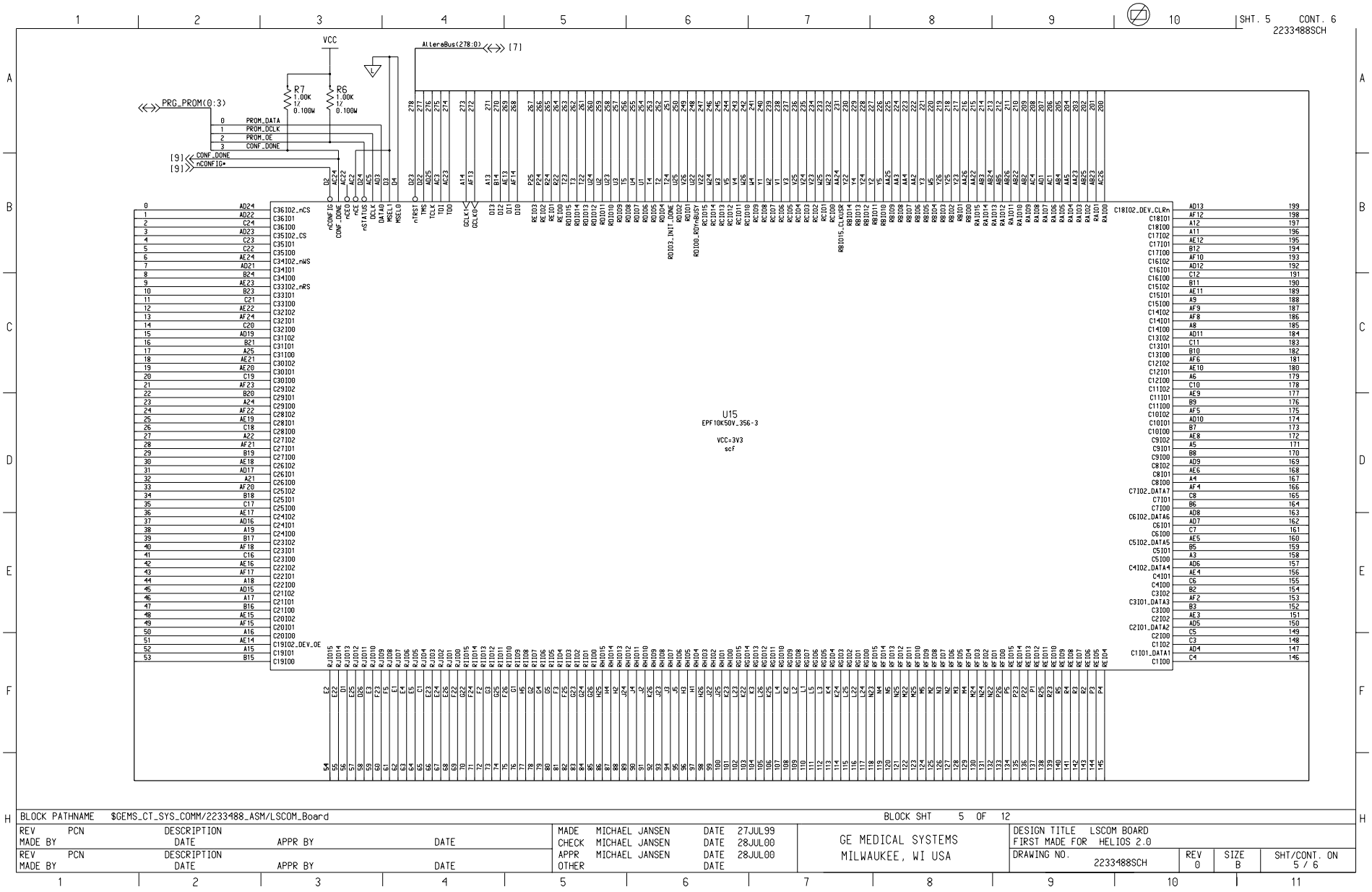


Figure 3-46 2233488 LSCOM Board, sheet 5, rev 0

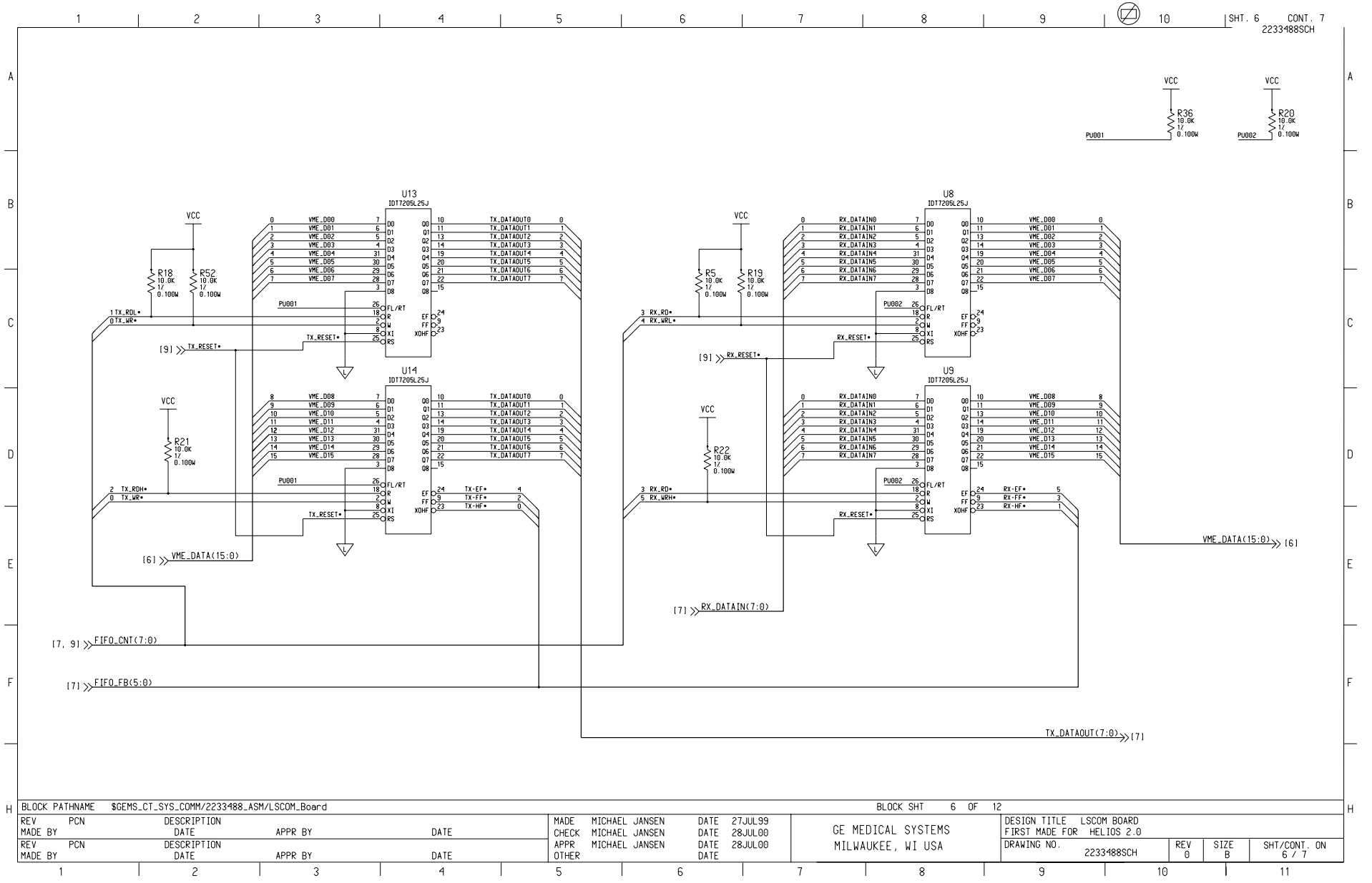


Figure 3-47 2233488 LSCOM Board, sheet 6, rev 0

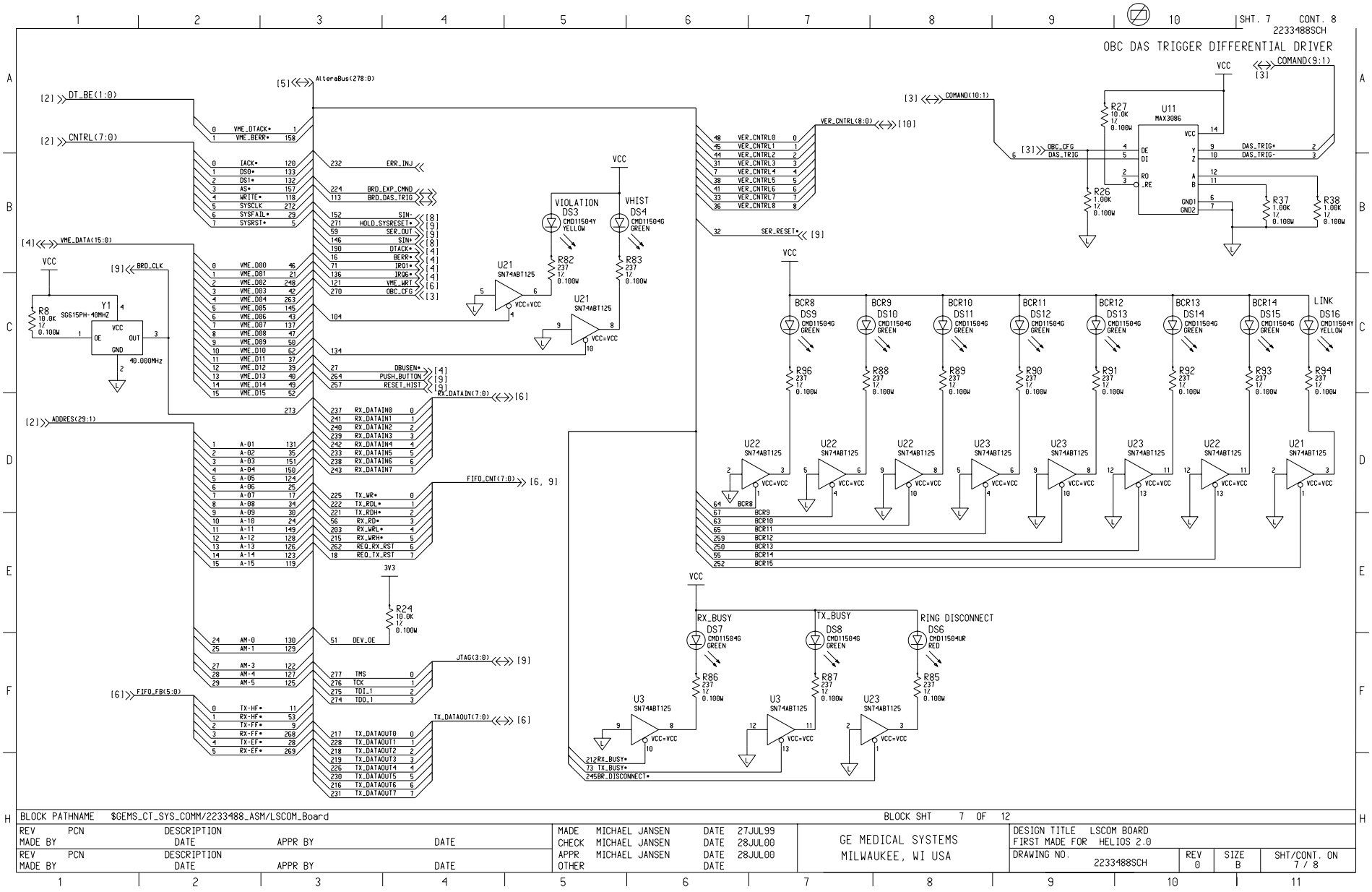


Figure 3-48 2233488 LSCOM Board, sheet 7, rev 0

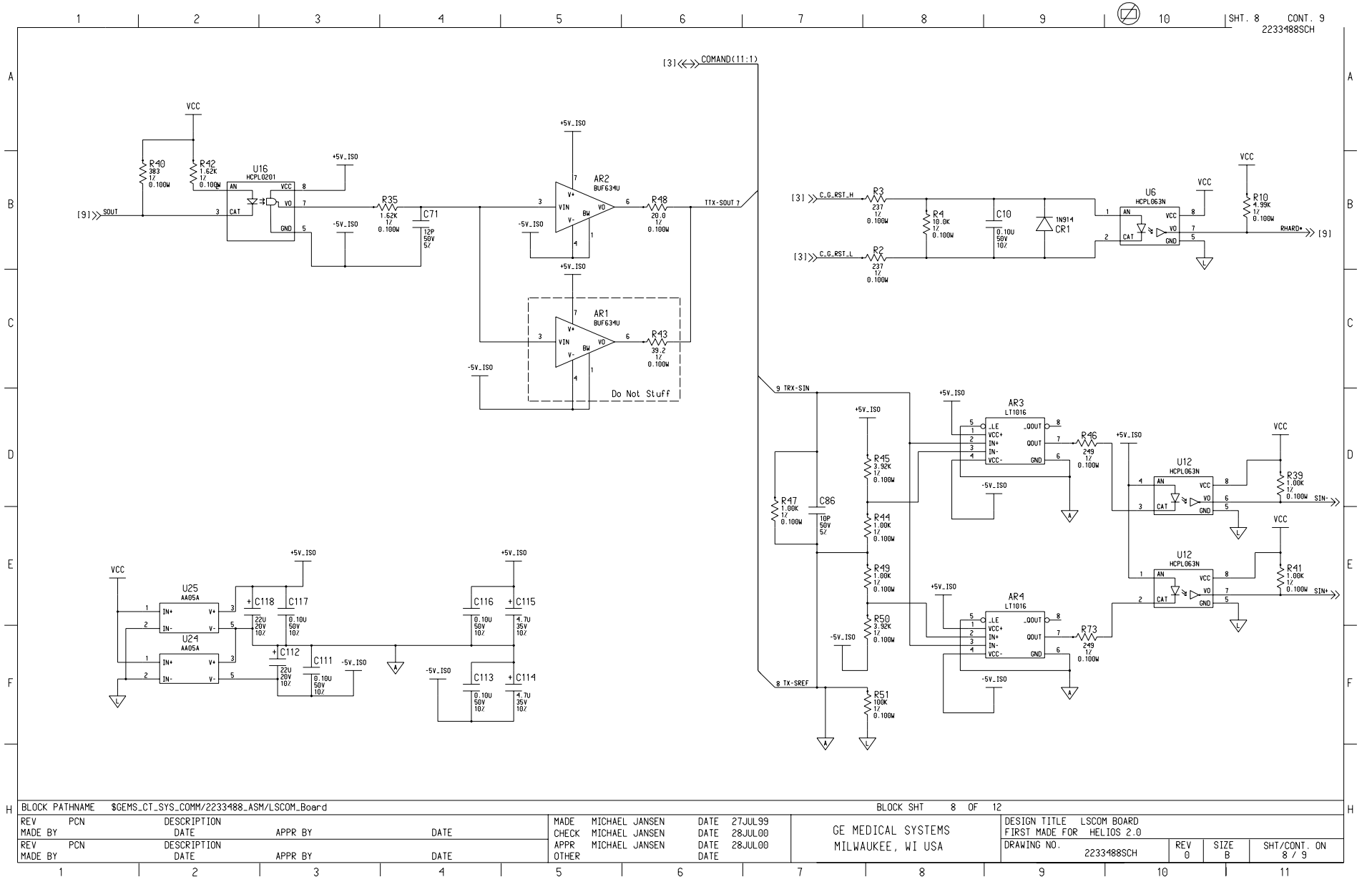


Figure 3-49 2233488 LSCOM Board, sheet 8, rev 0

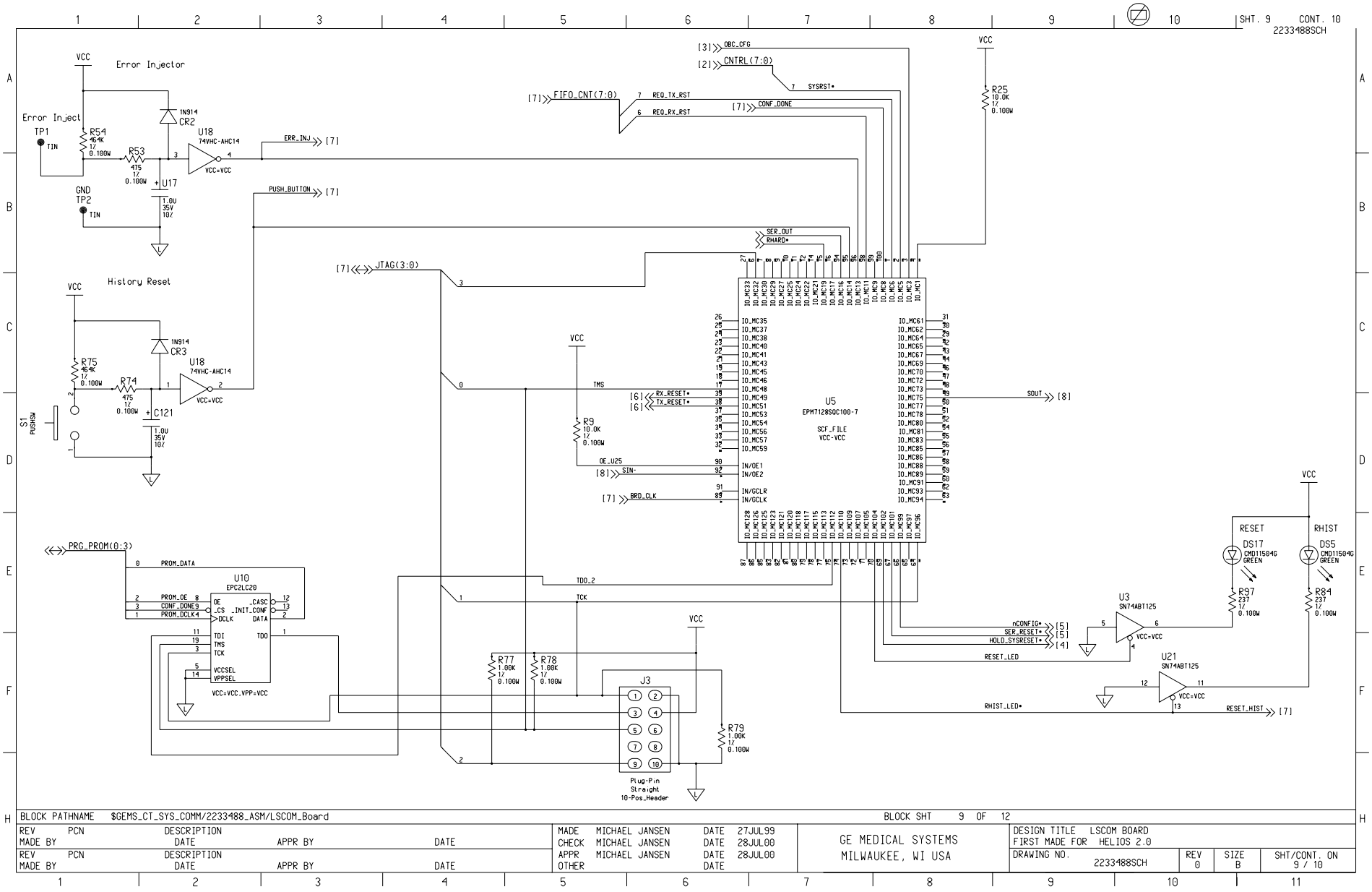


Figure 3-50 2233488 LSCOM Board, sheet 9, rev 0

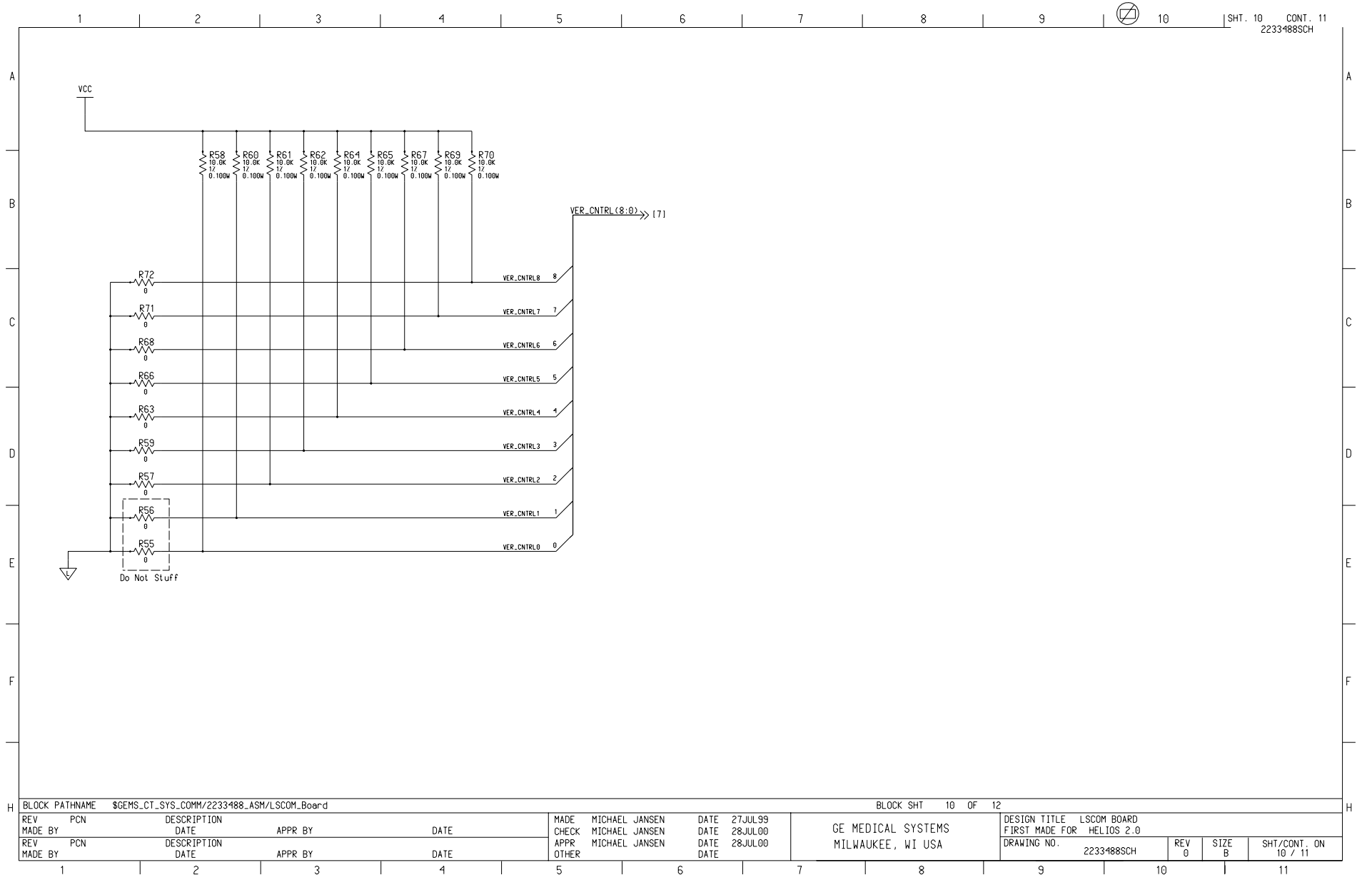


Figure 3-51 2233488 LSCOM Board, sheet 10, rev 0

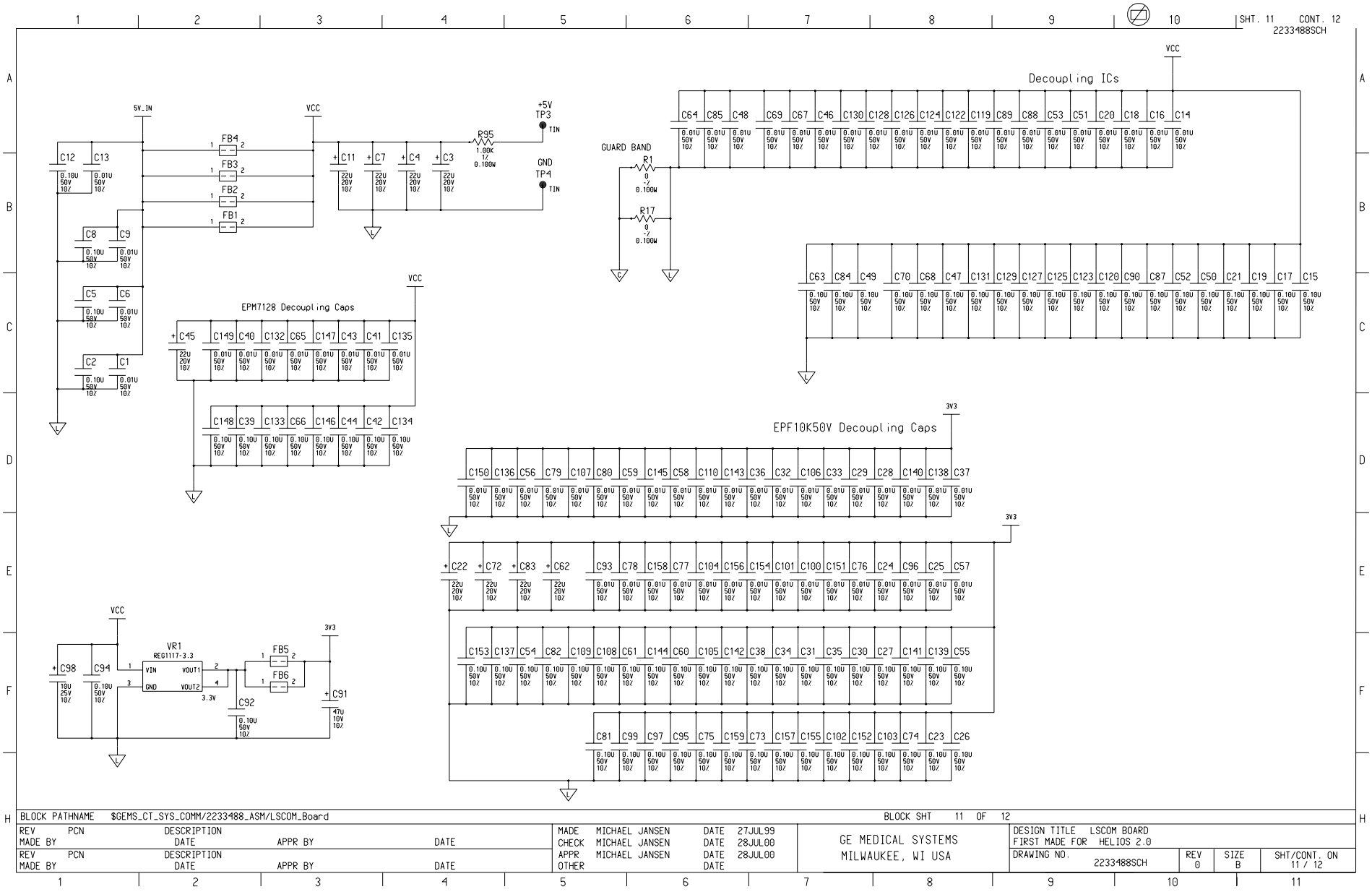


Figure 3-52 2233488 LSCOM Board, sheet 11, rev 0

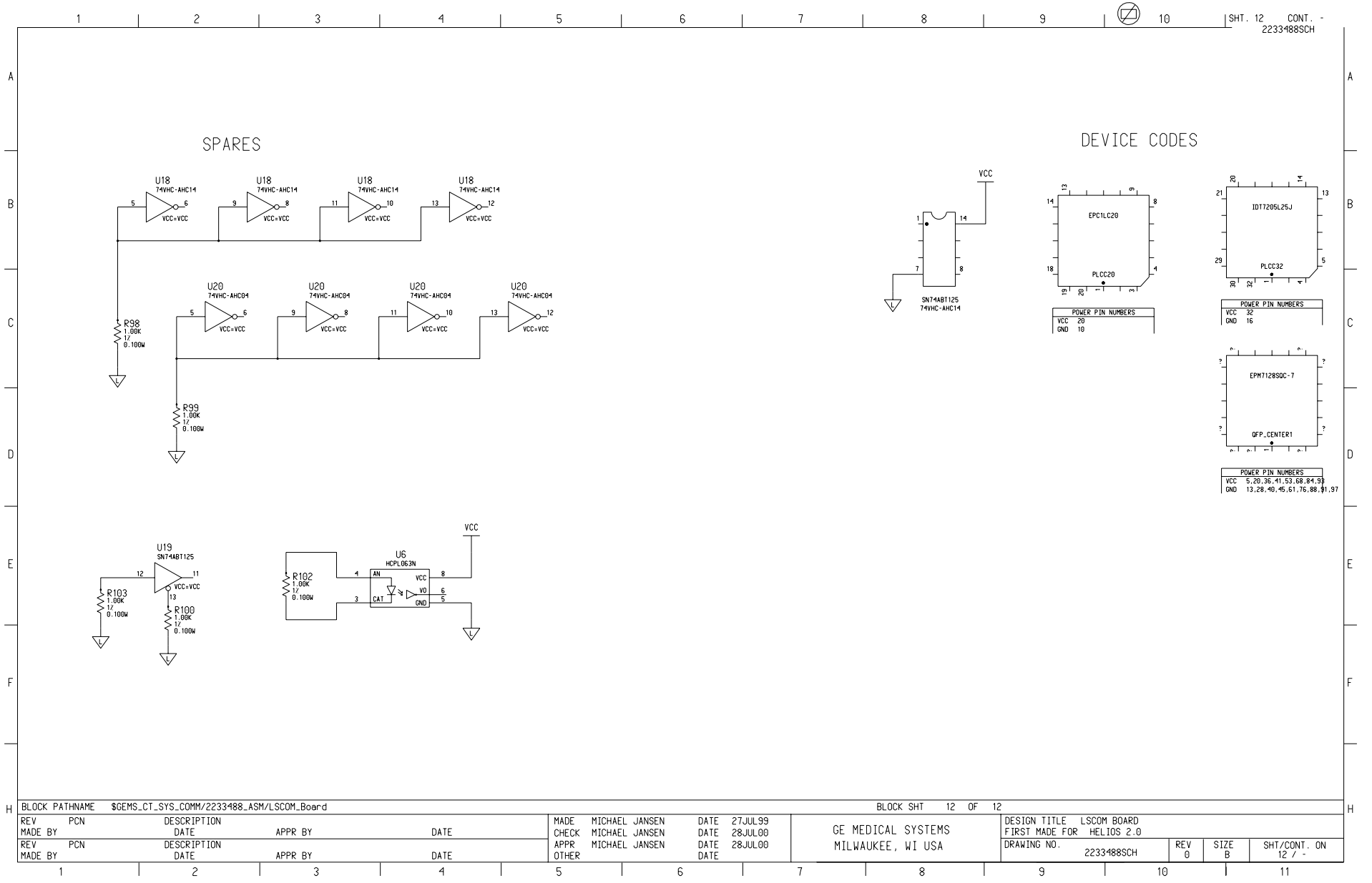


Figure 3-53 2233488 LSCOM Board, sheet 12, rev 0

3.3 STC Backplane - 2248475

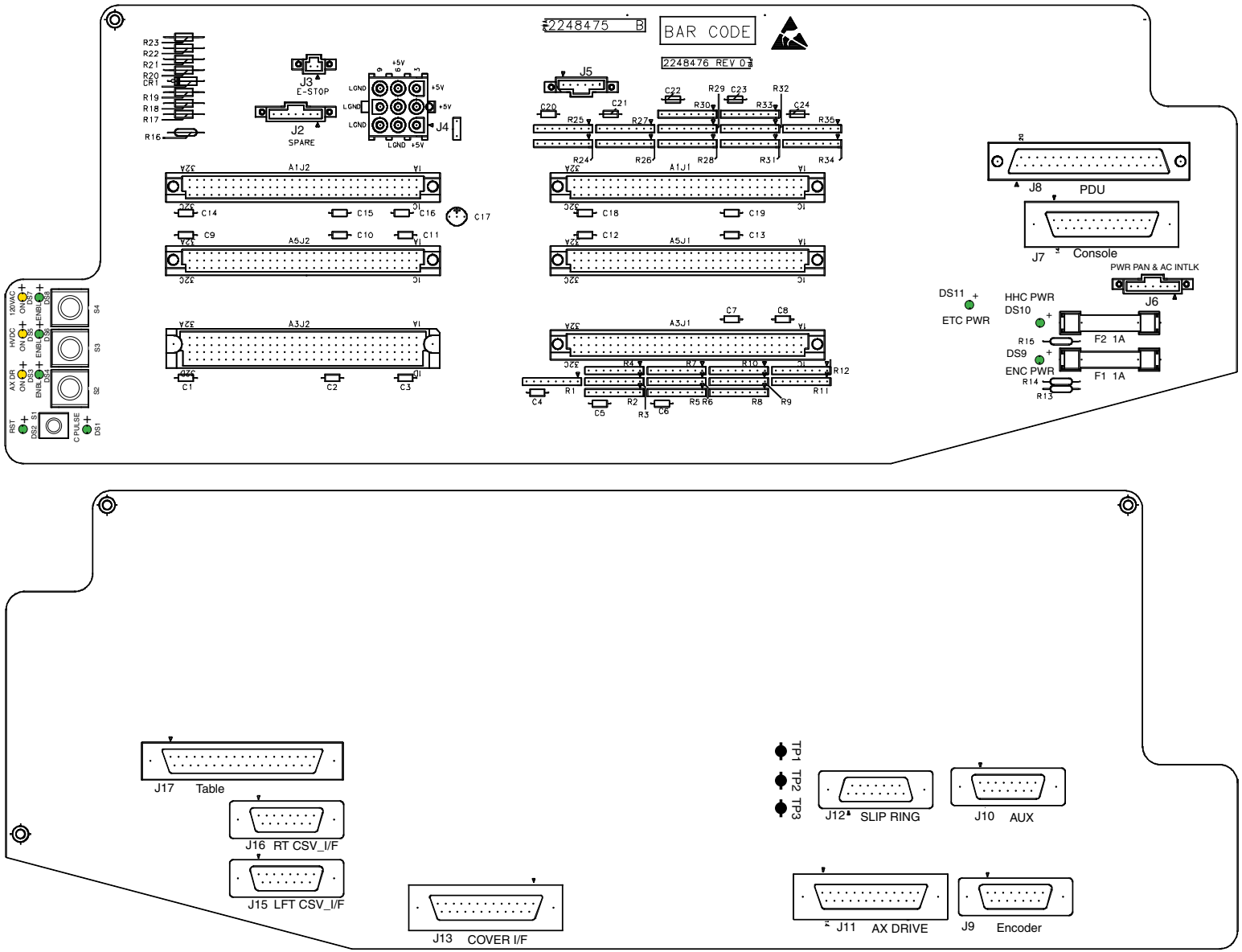
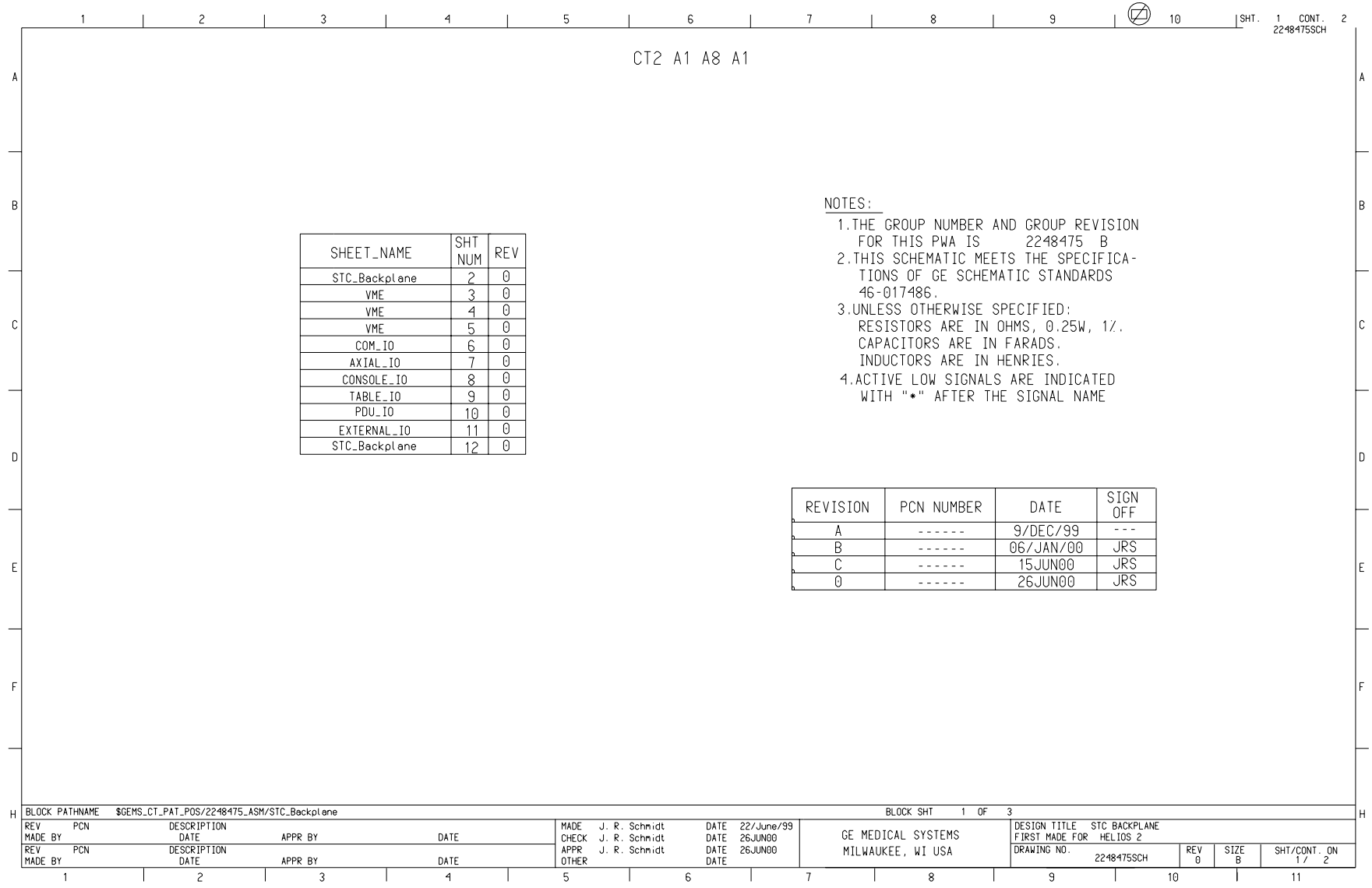


Figure 3-54 STC Backplane Layout (front and back), Rev 0



SHEET_NAME	SHT NUM	REV
STC_Backplane	2	0
VME	3	0
VME	4	0
VME	5	0
COM_IO	6	0
AXIAL_IO	7	0
CONSOLE_IO	8	0
TABLE_IO	9	0
PDU_IO	10	0
EXTERNAL_IO	11	0
STC_Backplane	12	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	9/DEC/99	---
B	------	06/JAN/00	JRS
C	------	15JUN00	JRS
0	------	26JUN00	JRS

Figure 3-55 2248475, Sheet 1, Rev. 0

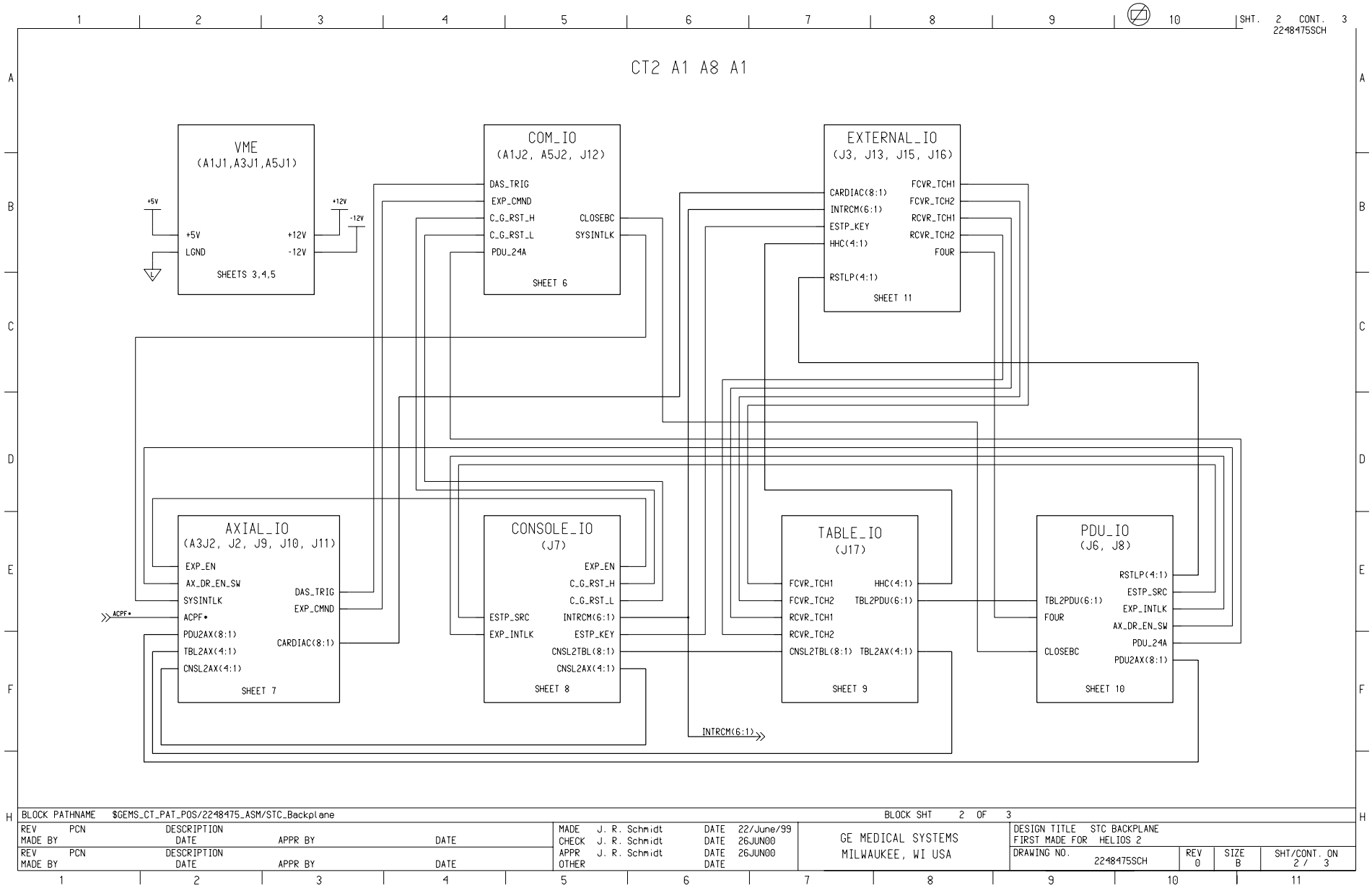


Figure 3-56 2248475, Sheet 2, Rev. 0

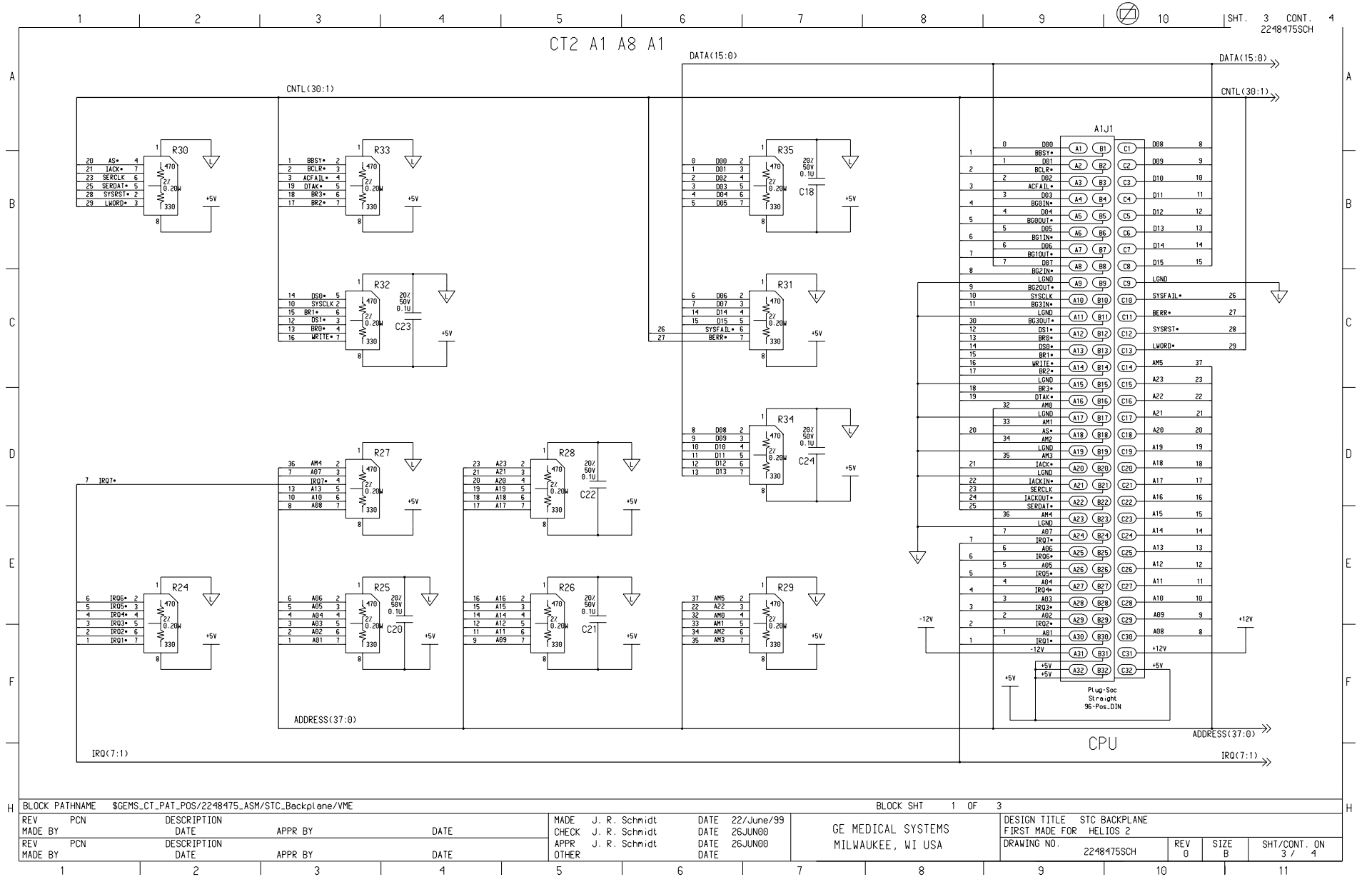


Figure 3-57 2248475, Sheet 3, Rev. 0

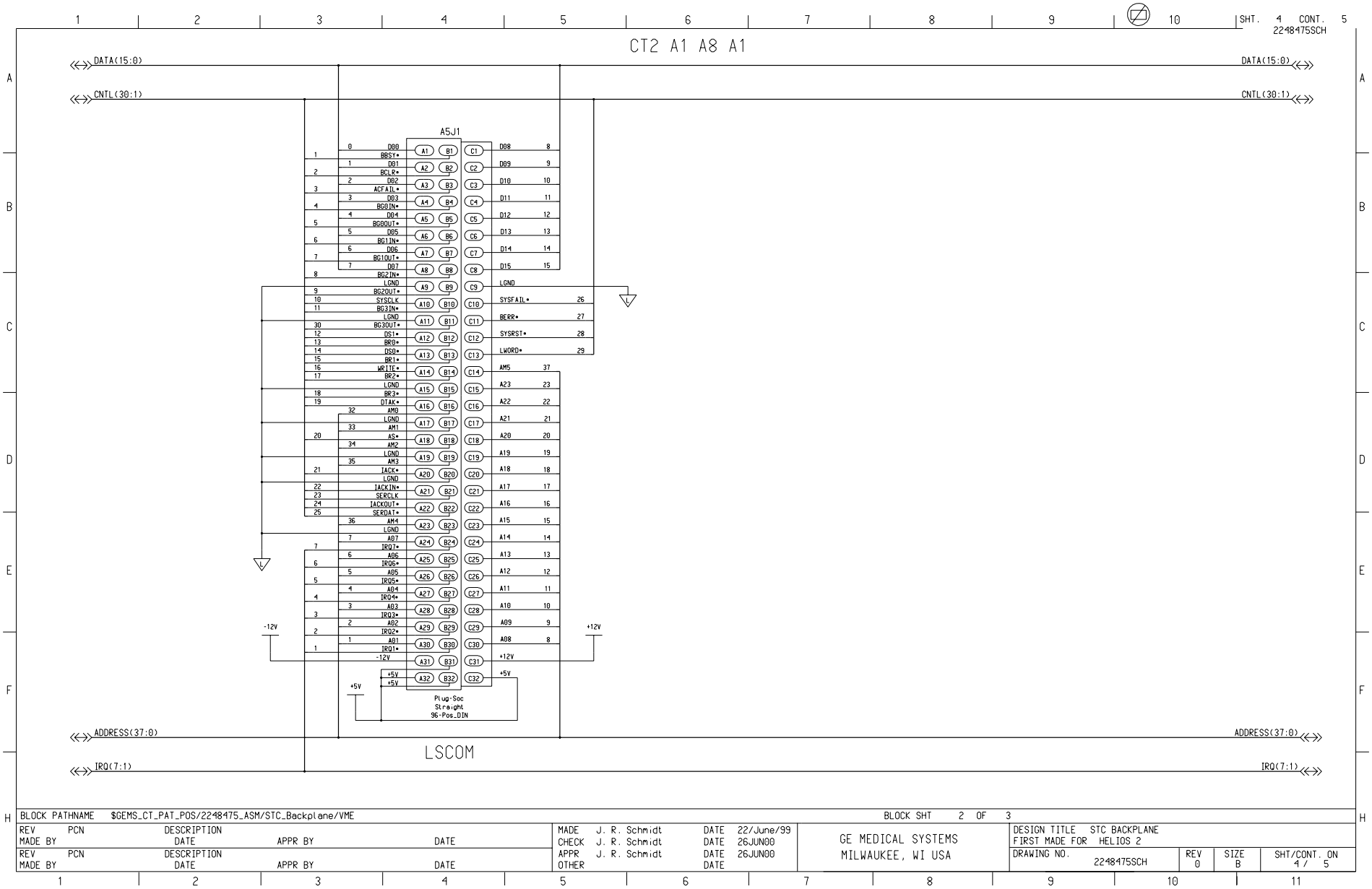


Figure 3-58 2248475, Sheet 4, Rev. 0

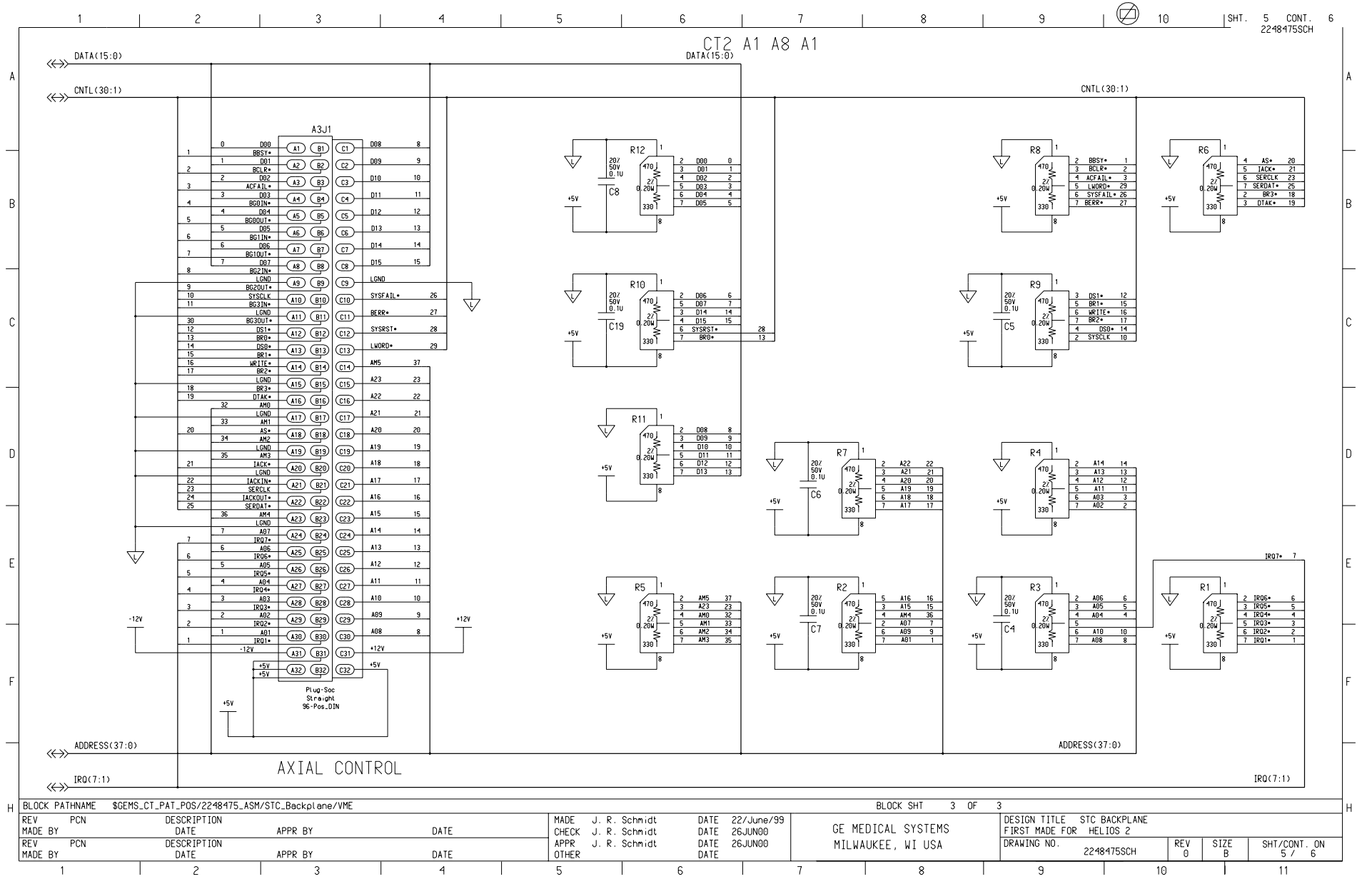


Figure 3-59 2248475, Sheet 5, Rev. 0

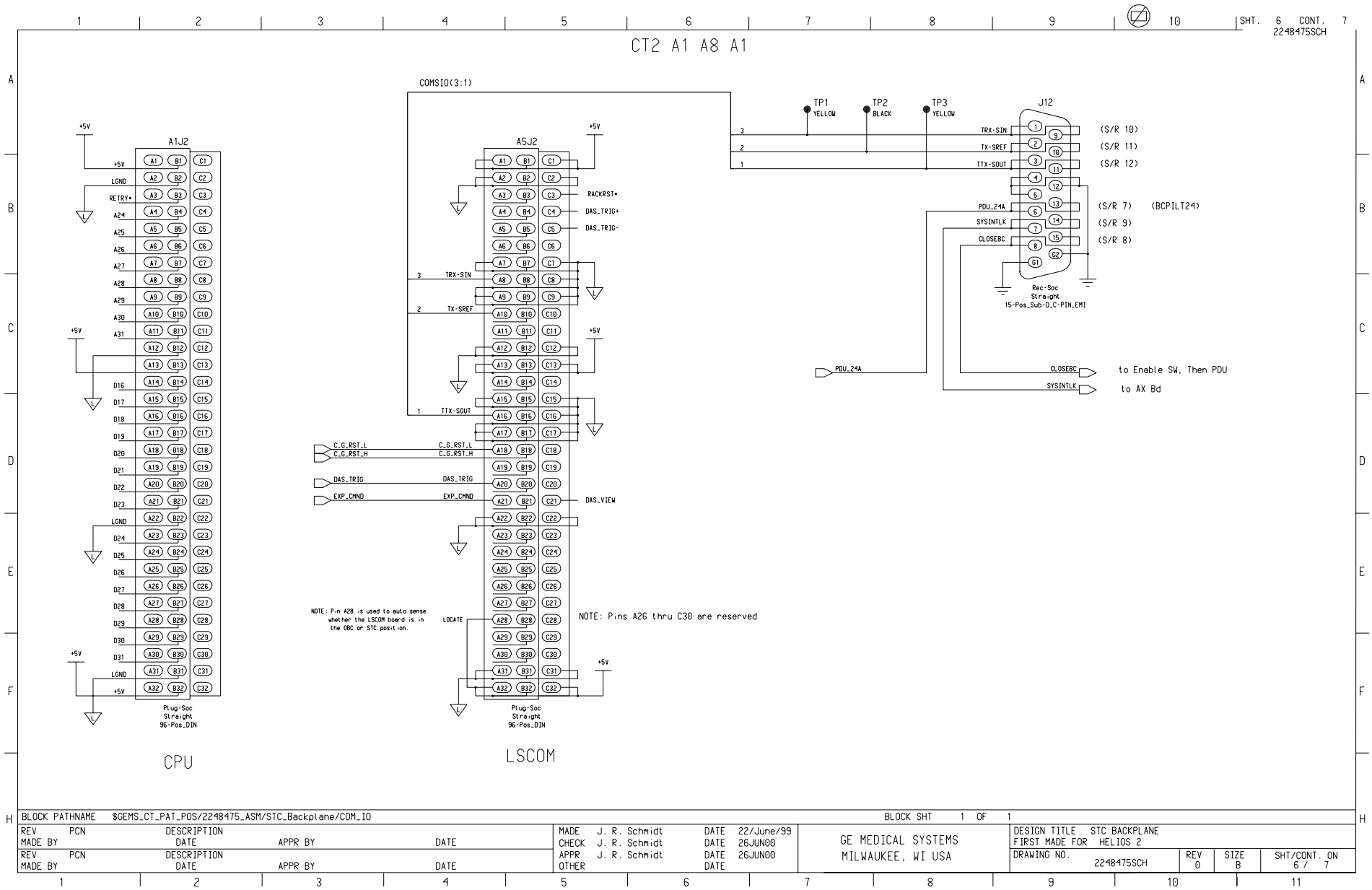


Figure 3-60 2248475, Sheet 6, Rev. 0

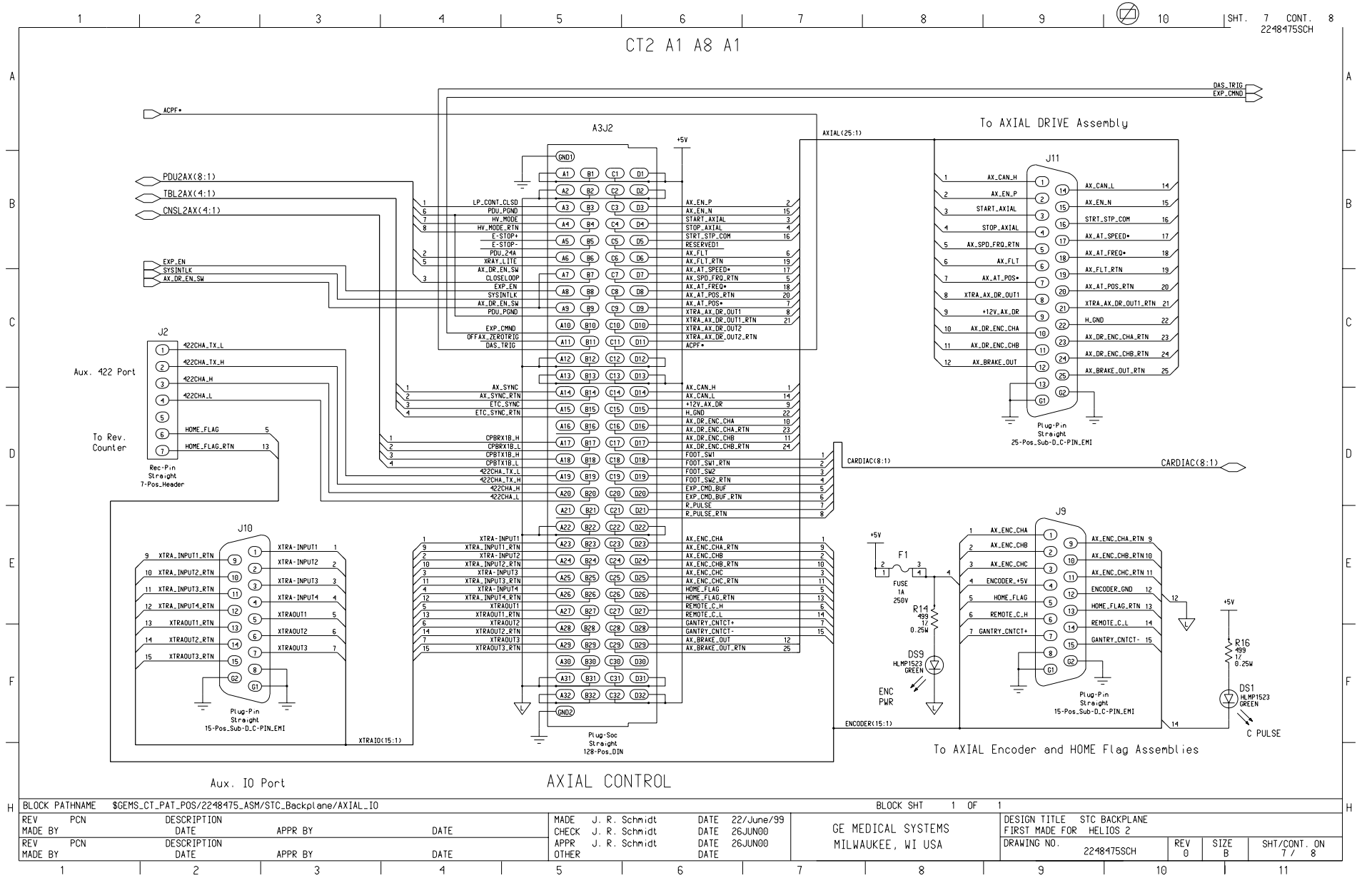


Figure 3-61 2248475, Sheet 7, Rev. 0

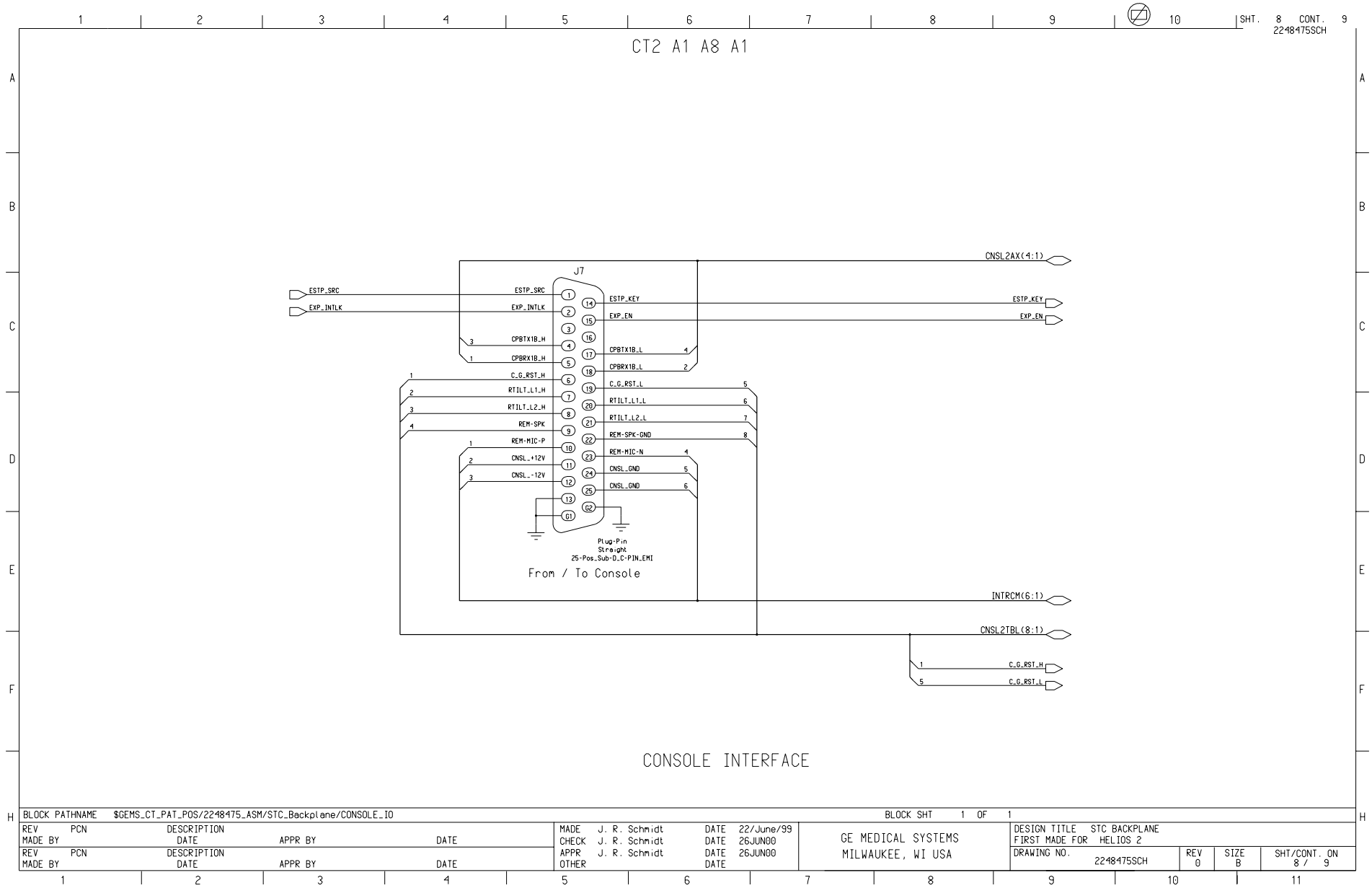


Figure 3-62 2248475, Sheet 8, Rev. 0

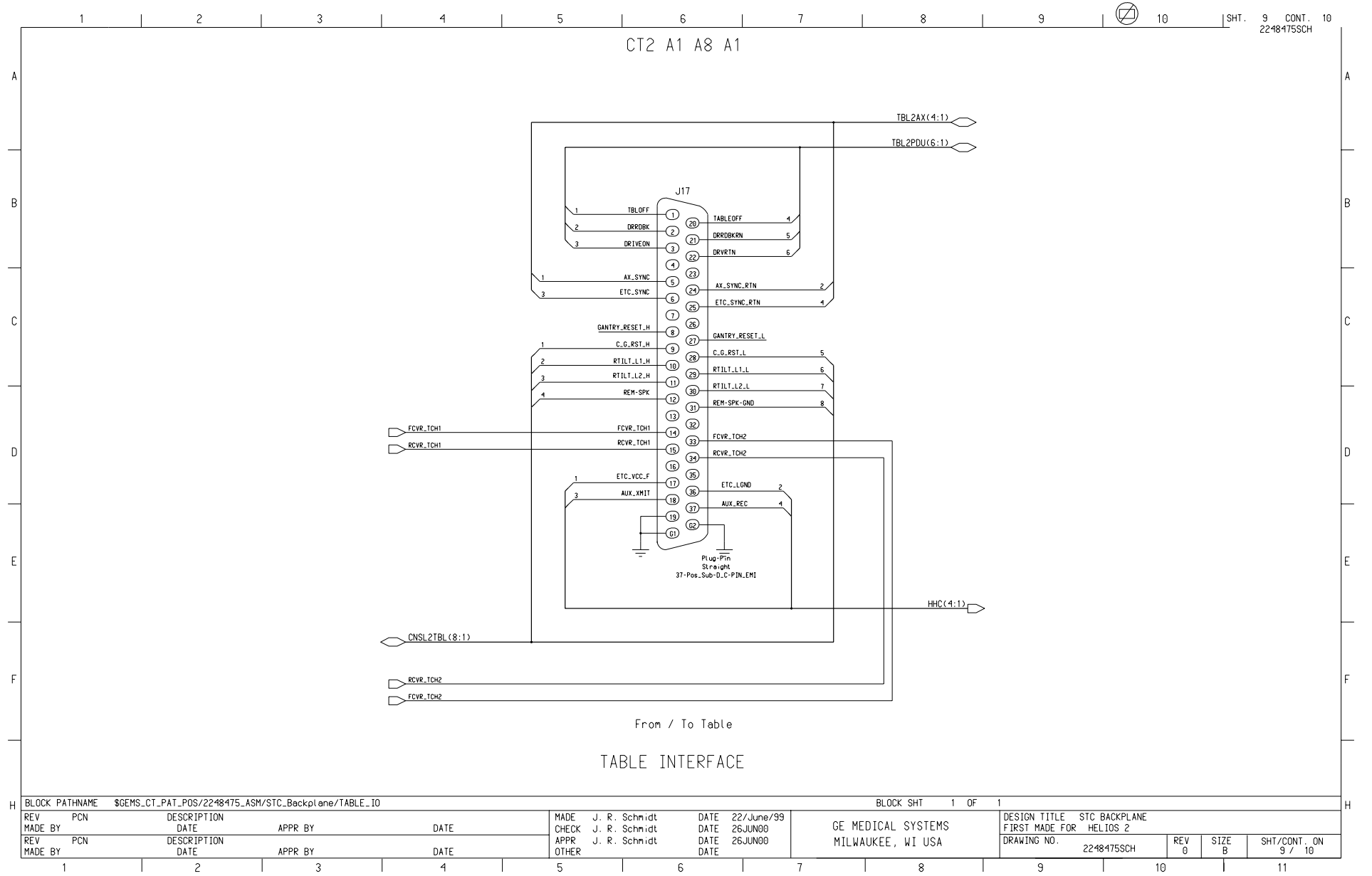


Figure 3-63 2248475, Sheet 9, Rev. 0

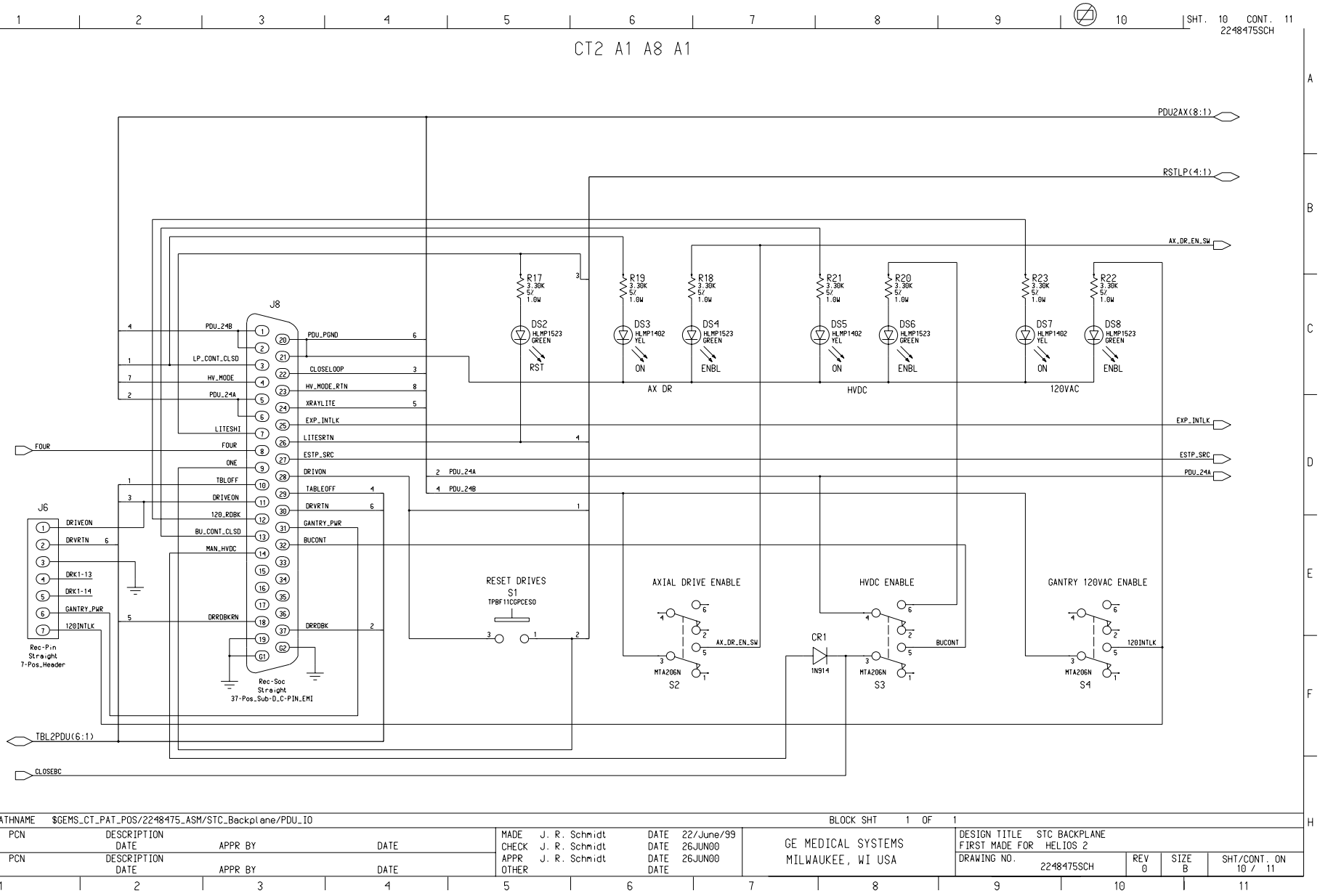


Figure 3-64 2248475, Sheet 10, Rev. 0

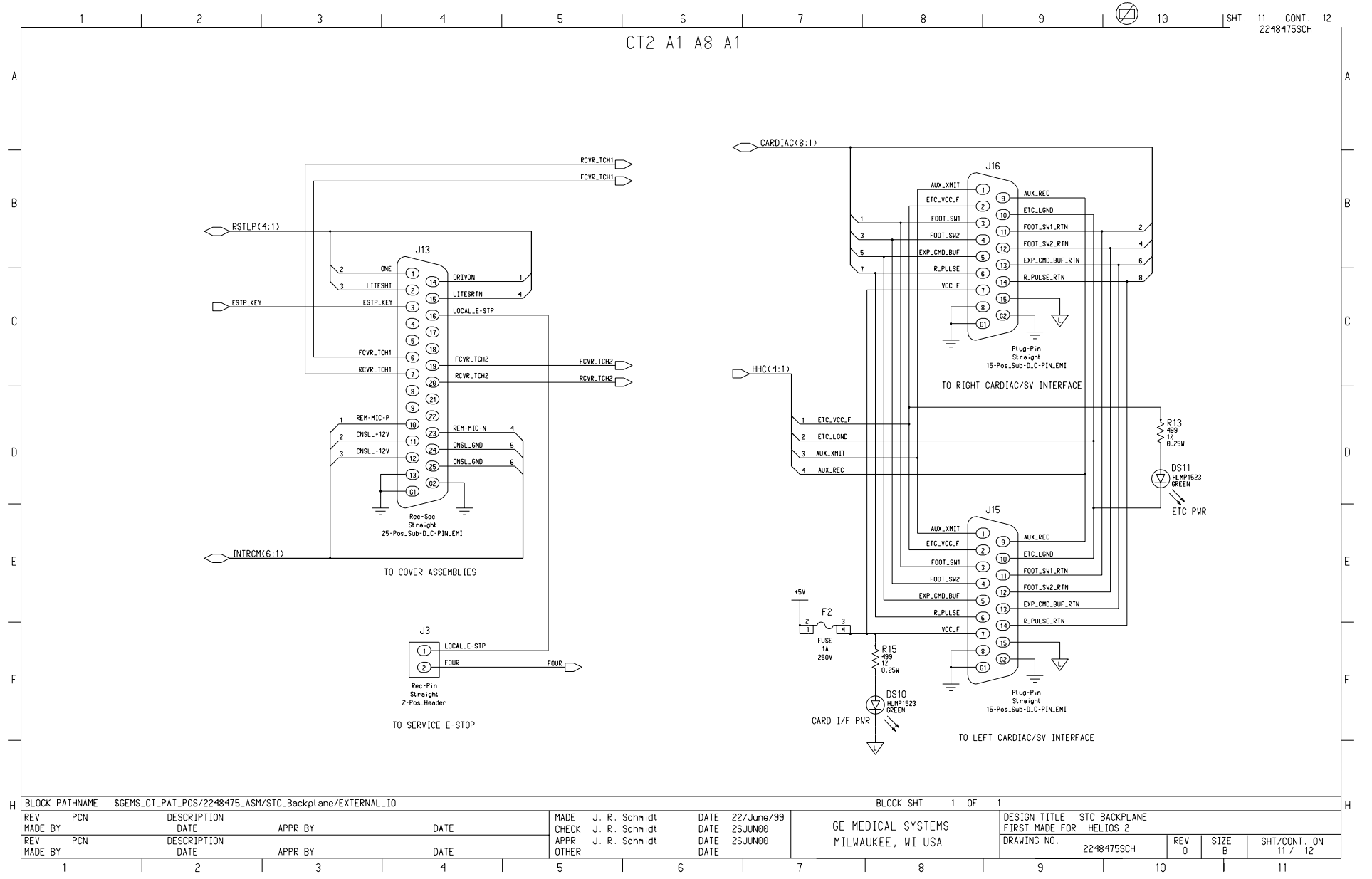


Figure 3-65 2248475, Sheet 11, Rev. 0

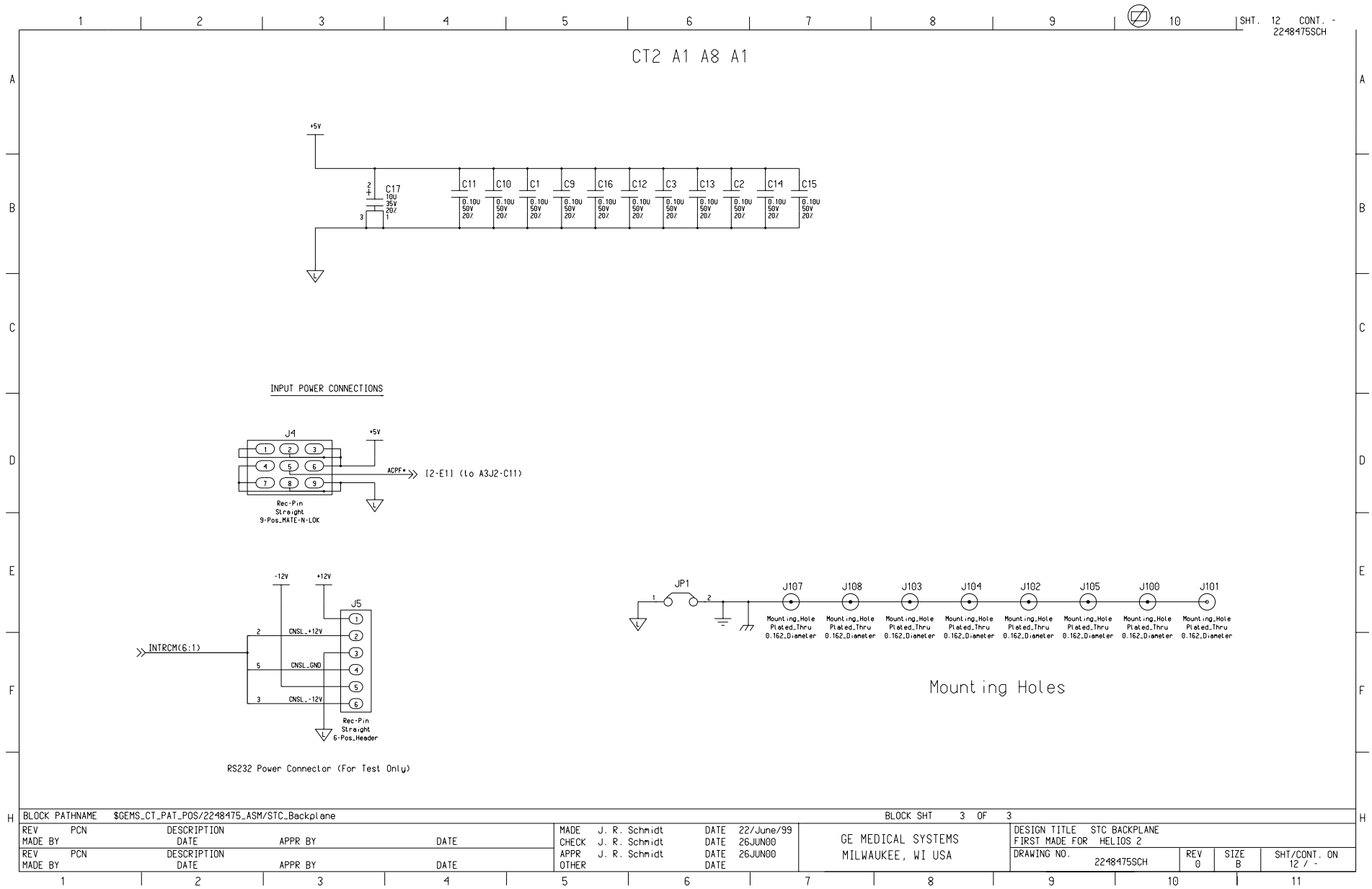


Figure 3-66 2248475, Sheet 12, Rev. 0

Section 4.0 — OBC (On Board Controller)

4.1 LSCOM Board - 2233488

See *3.2 LSCOM Board - 2233488*, on page 140.

4.2 Gentry I/O Bd. - 46-288512G1

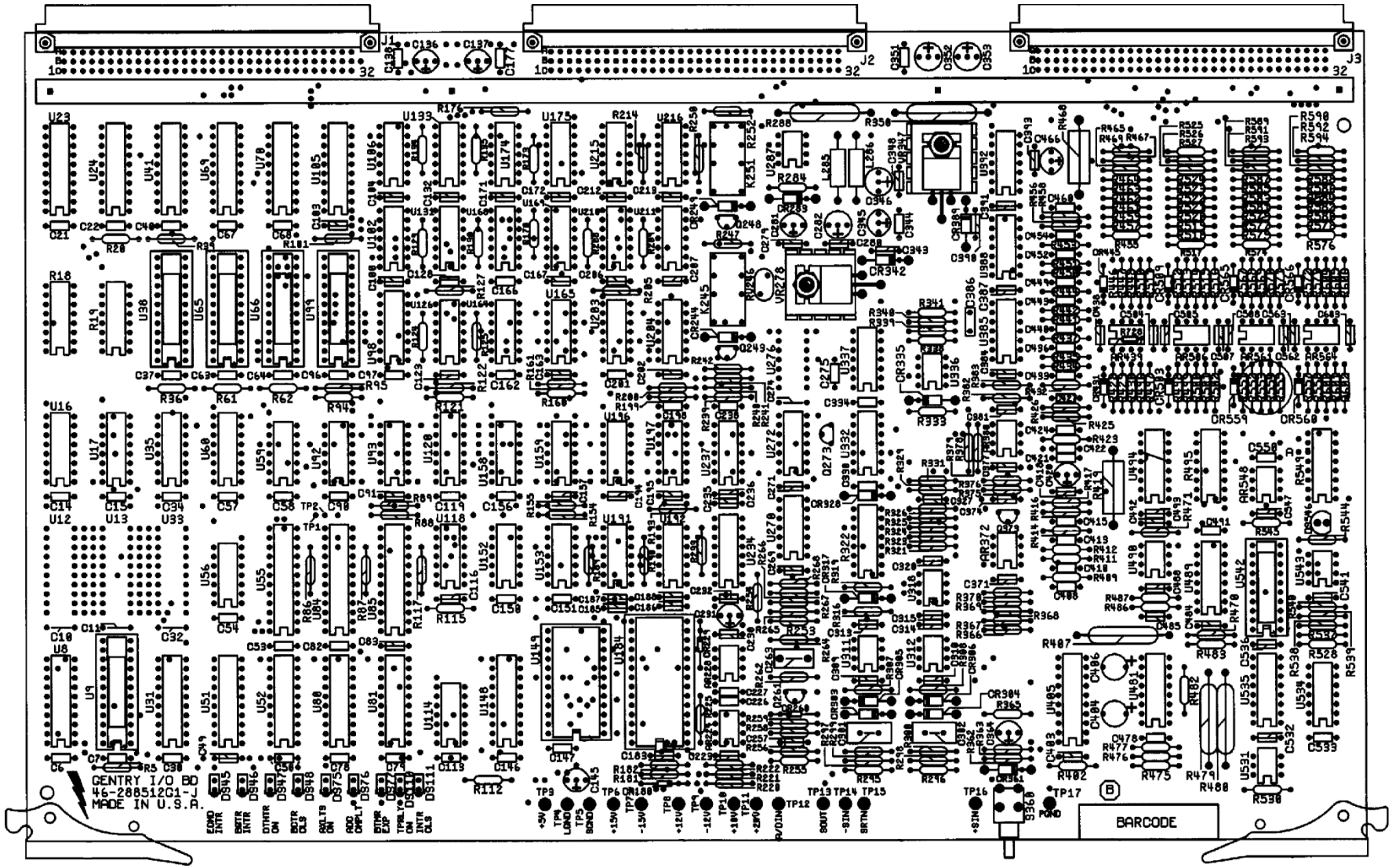


Figure 3-67 Gentry I/O Board Layout, Rev 4

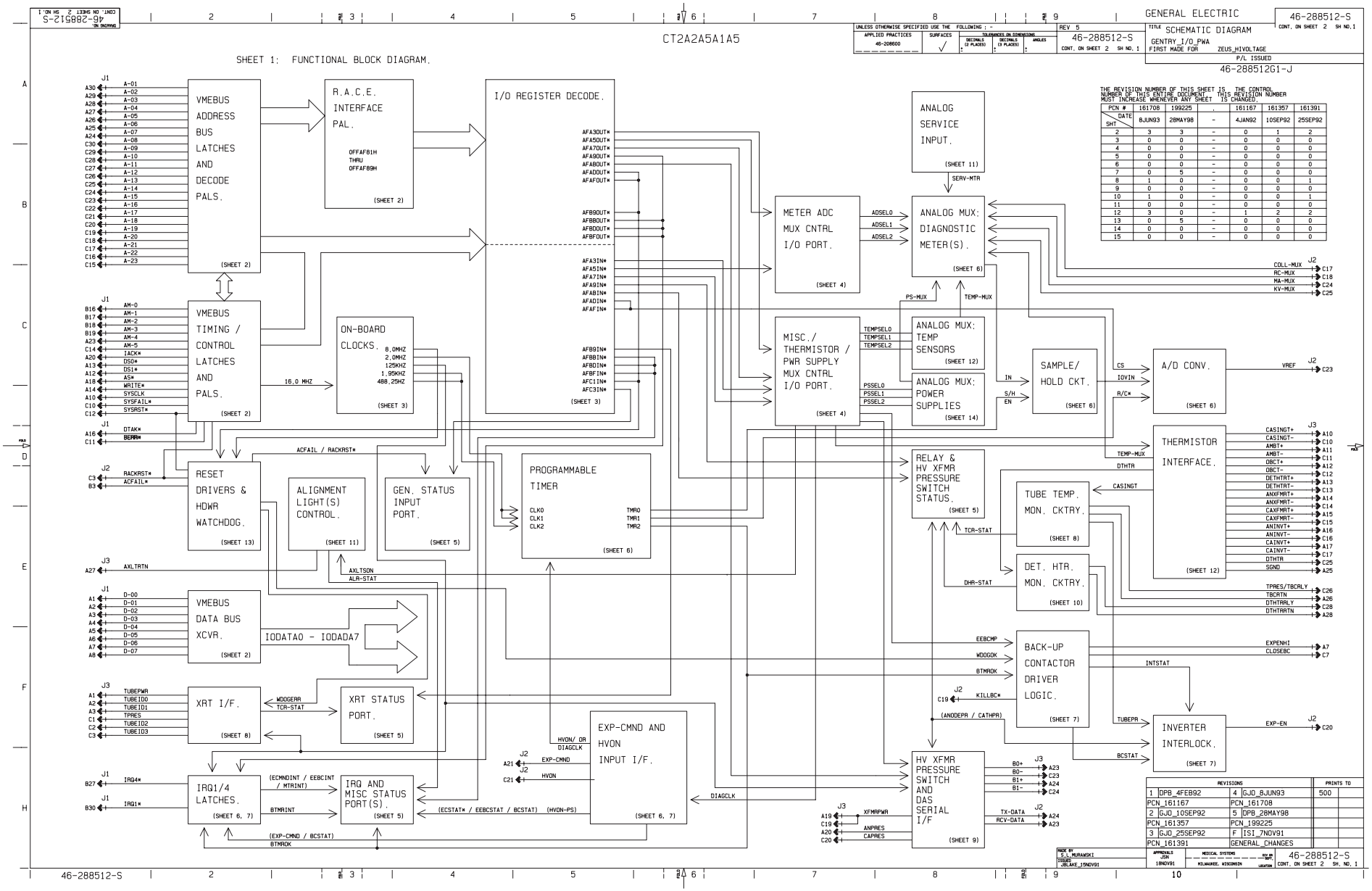


Figure 3-68 46-288512 Sheet 1 Rev. 5

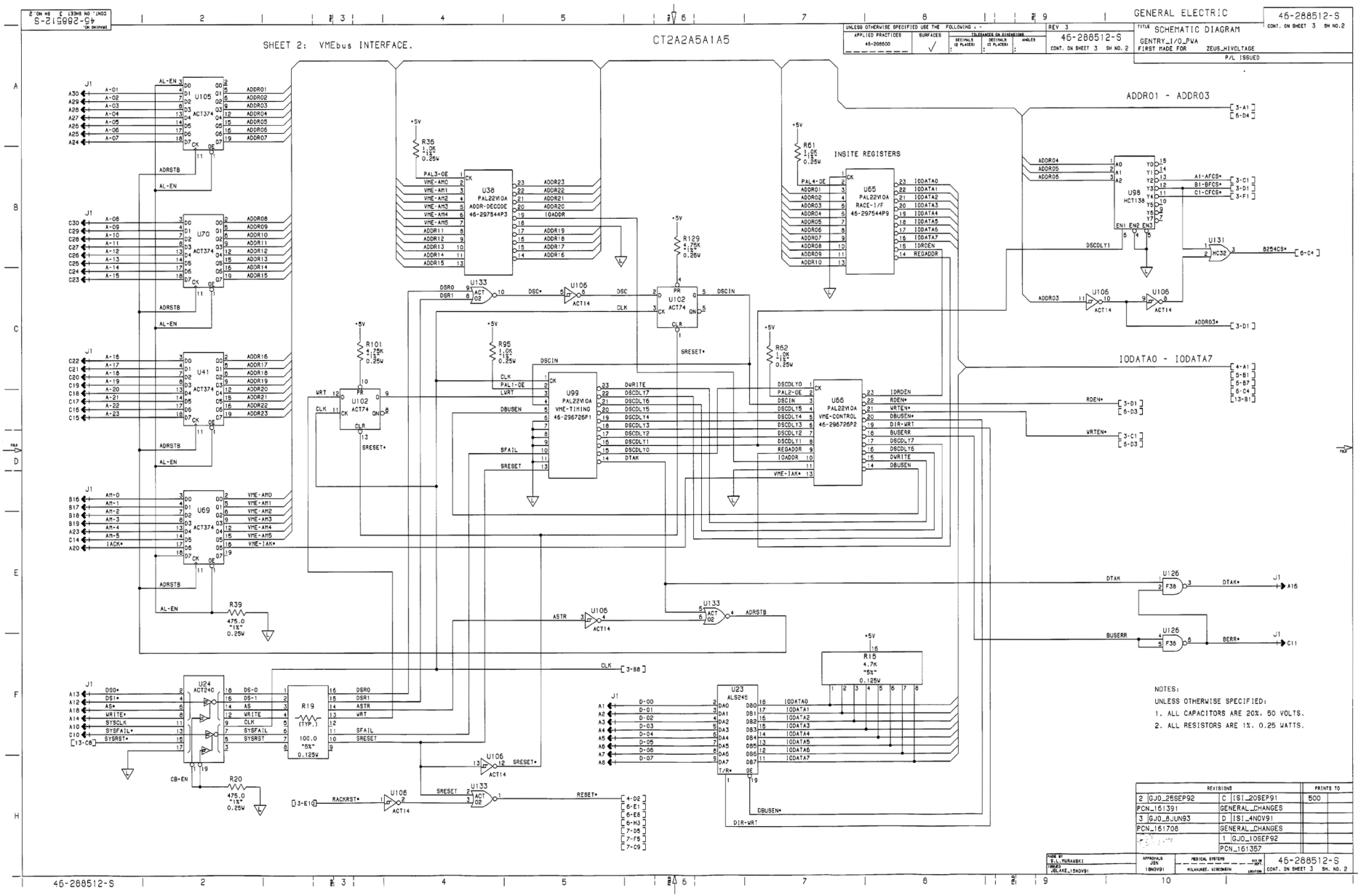


Figure 3-69 46-288512, sheet 2, rev. 3

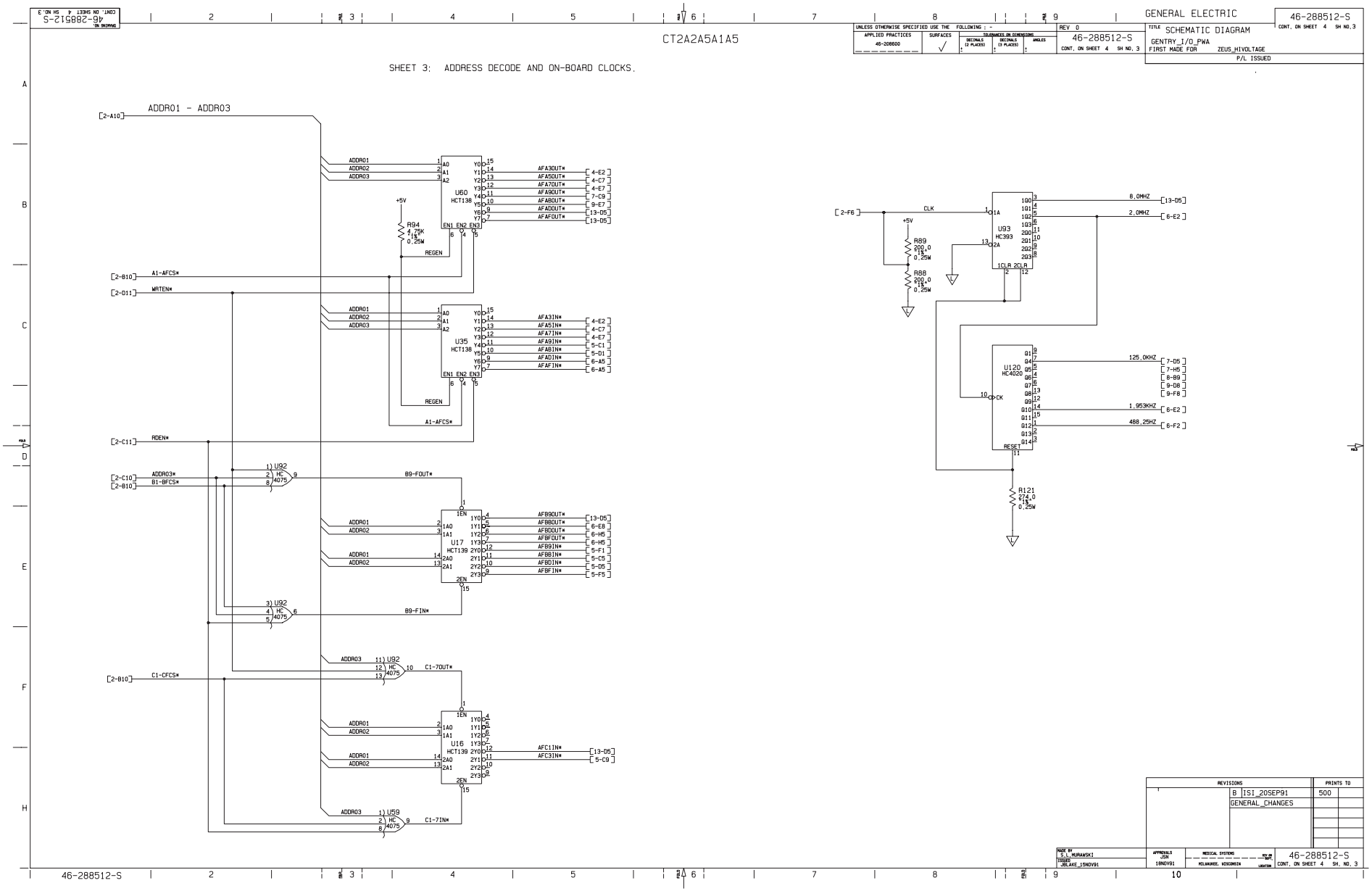


Figure 3-70 46-288512 Sheet 3 Rev. 0

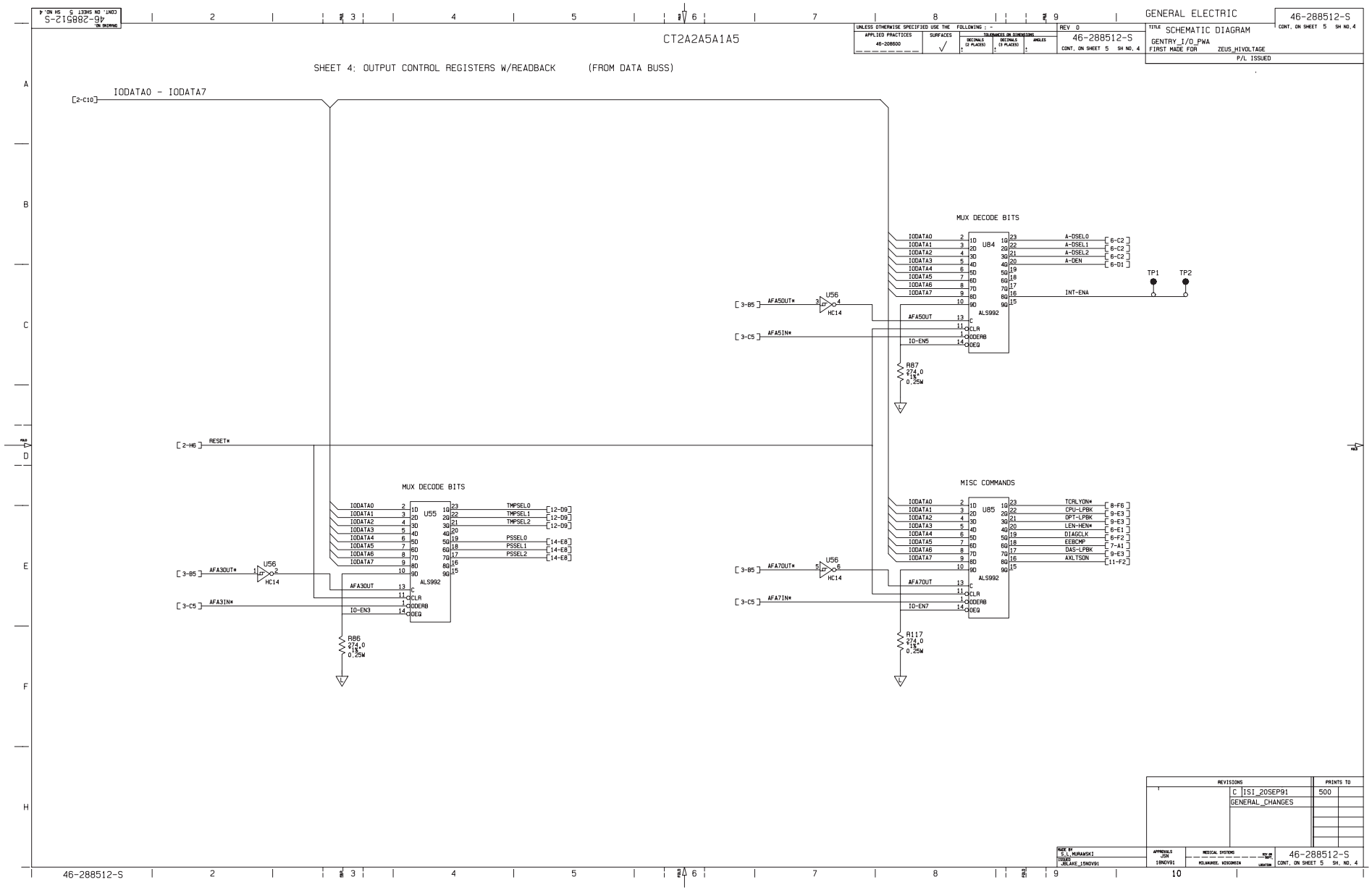


Figure 3-71 46-288512 Sheet 4 Rev. 0

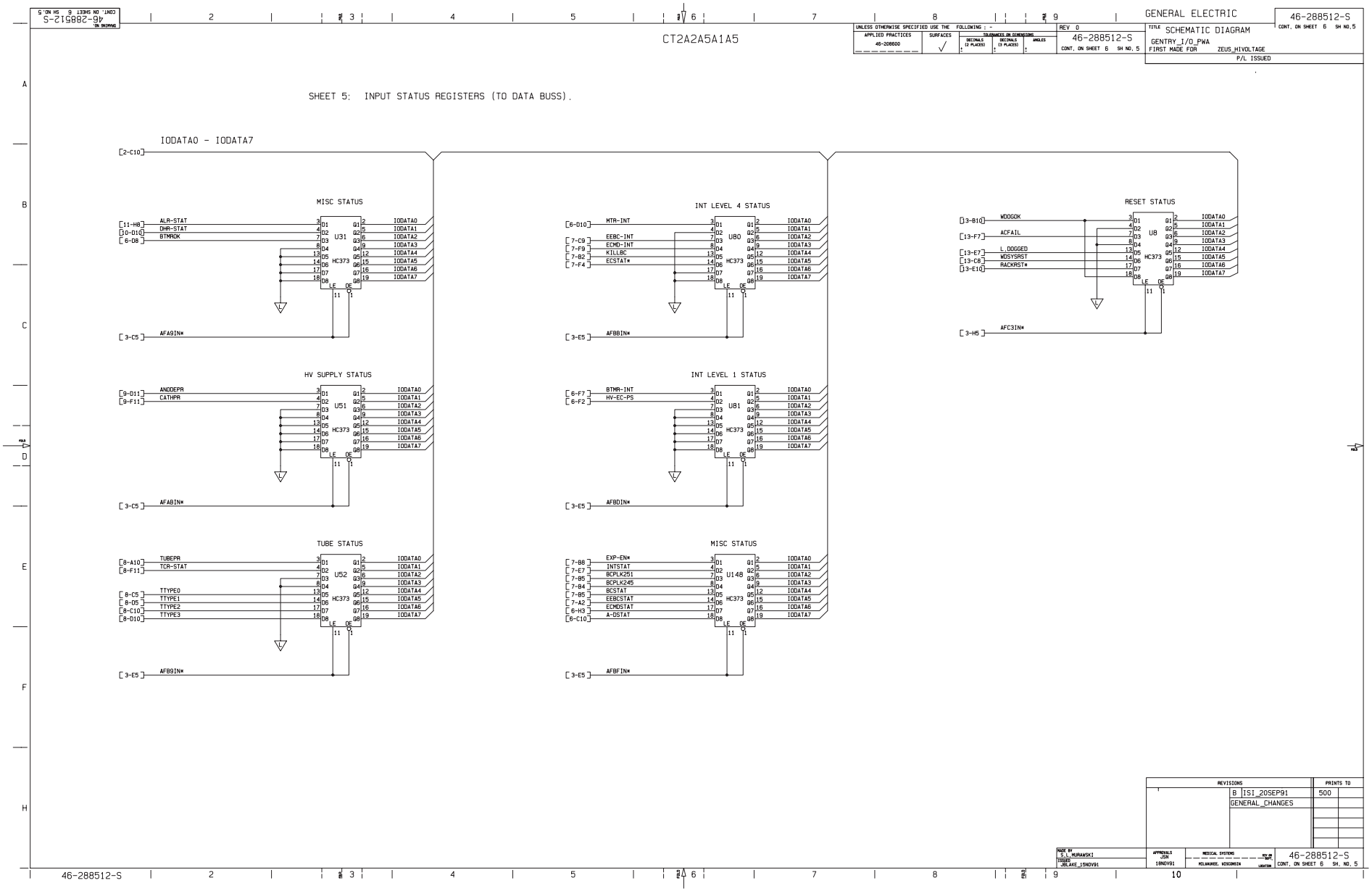


Figure 3-72 46-288512 Sheet 5 Rev. 0

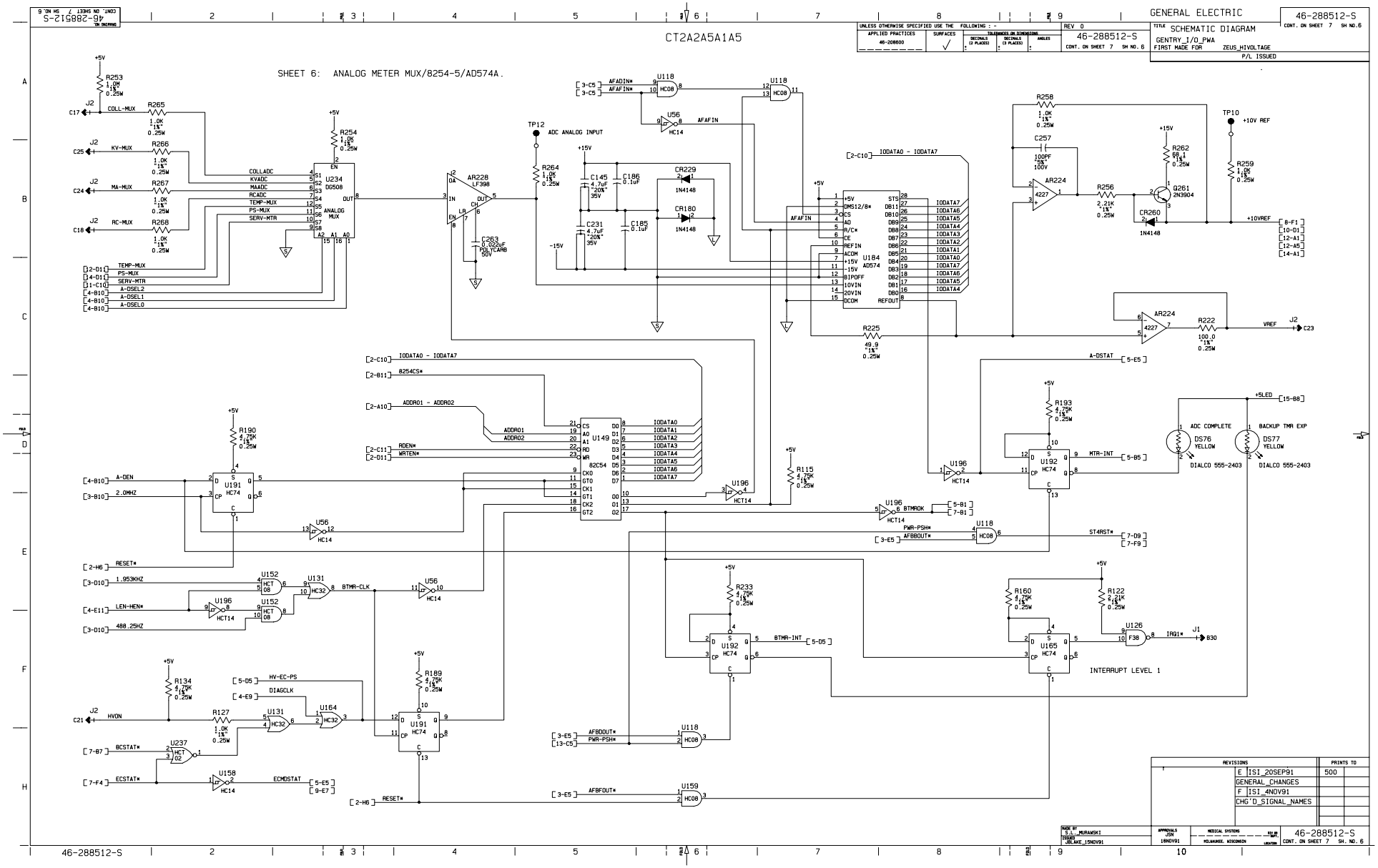


Figure 3-73 46-288512 Sheet 6 Rev. 0

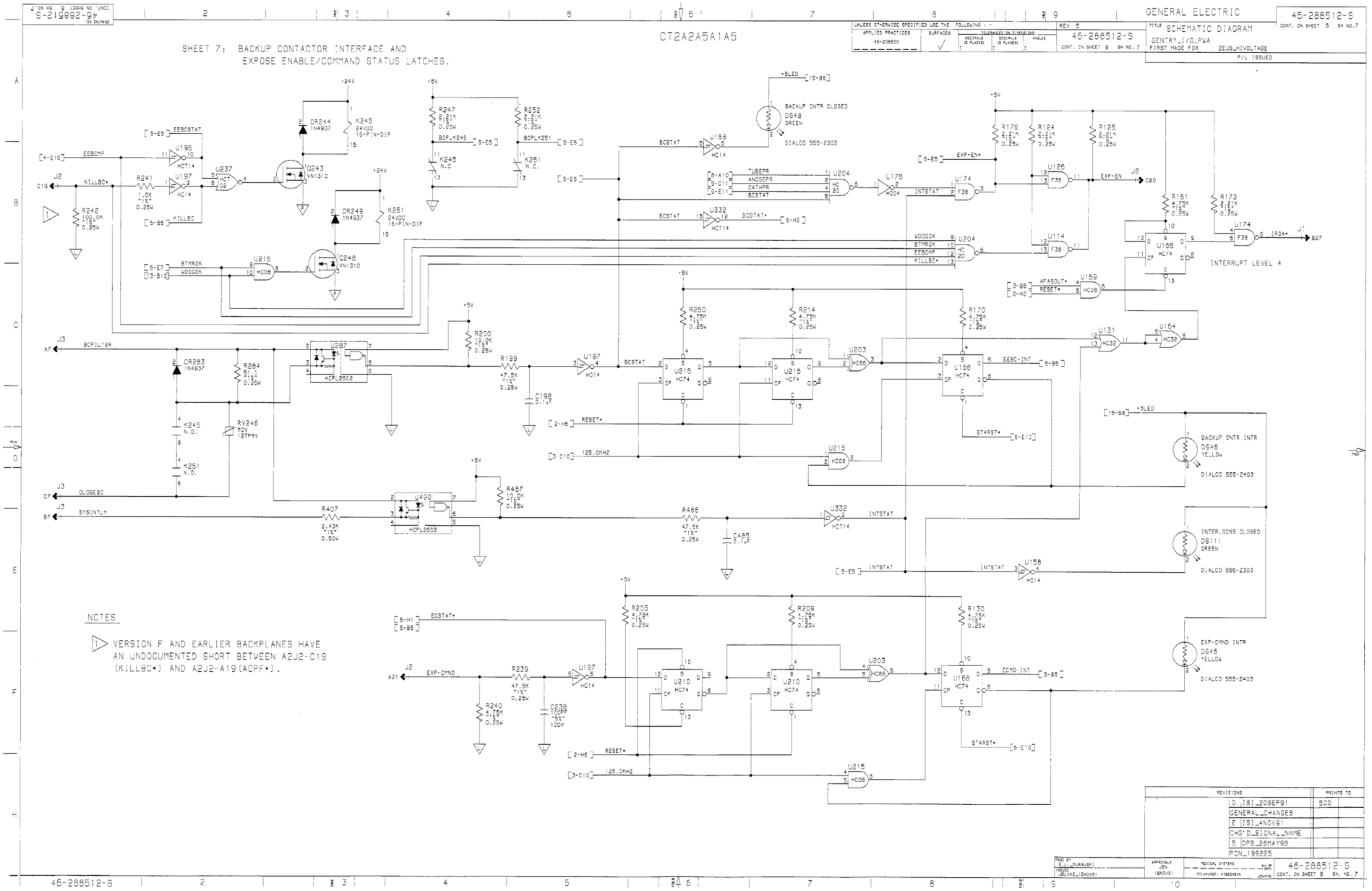


Figure 3-74 46-288512, sheet 7, rev. 5

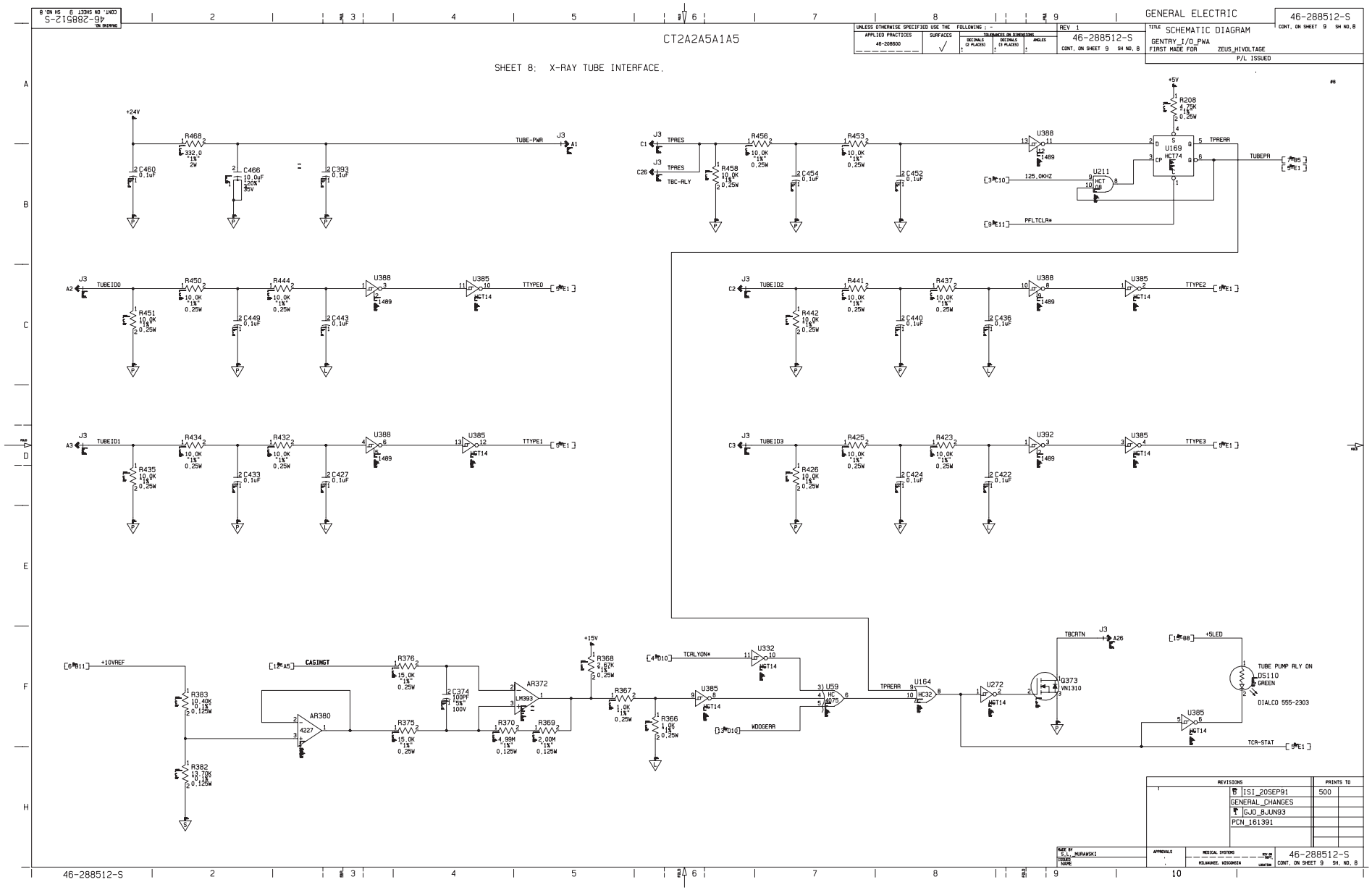


Figure 3-75 46-288512 Sheet 8 Rev. 1

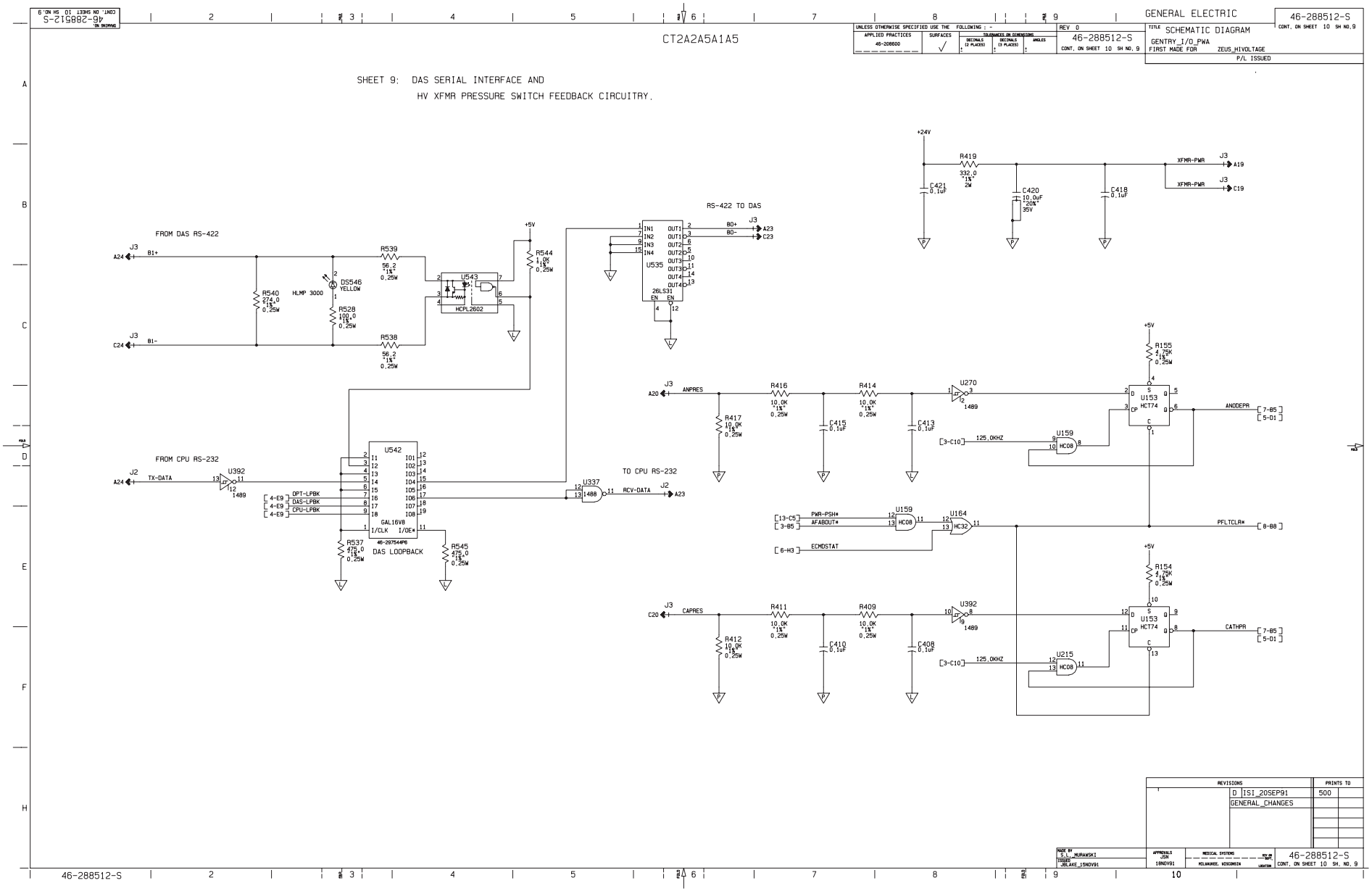


Figure 3-76 46-288512 Sheet 9 Rev. 0

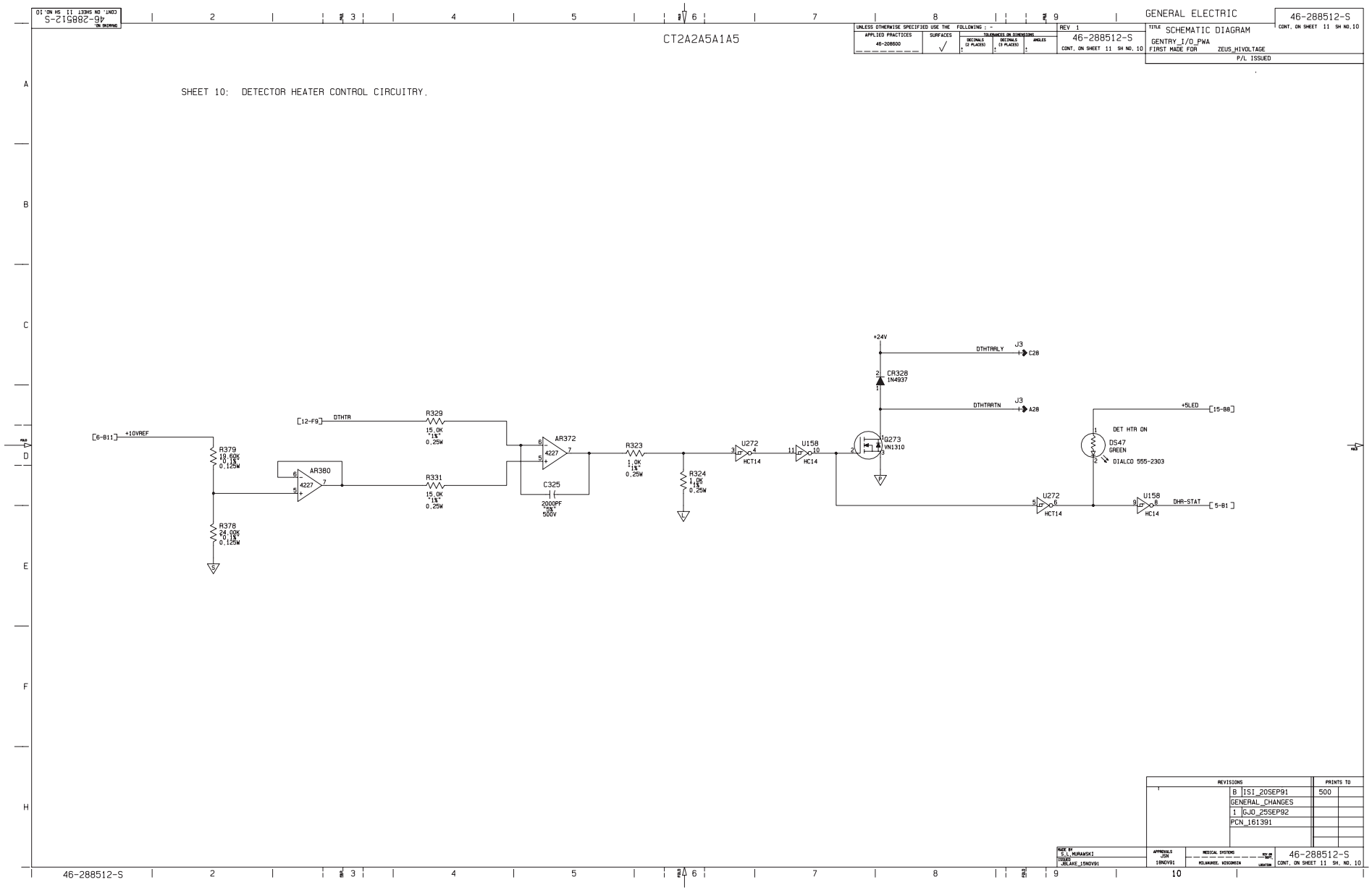


Figure 3-77 46-288512 Sheet 10 Rev. 1

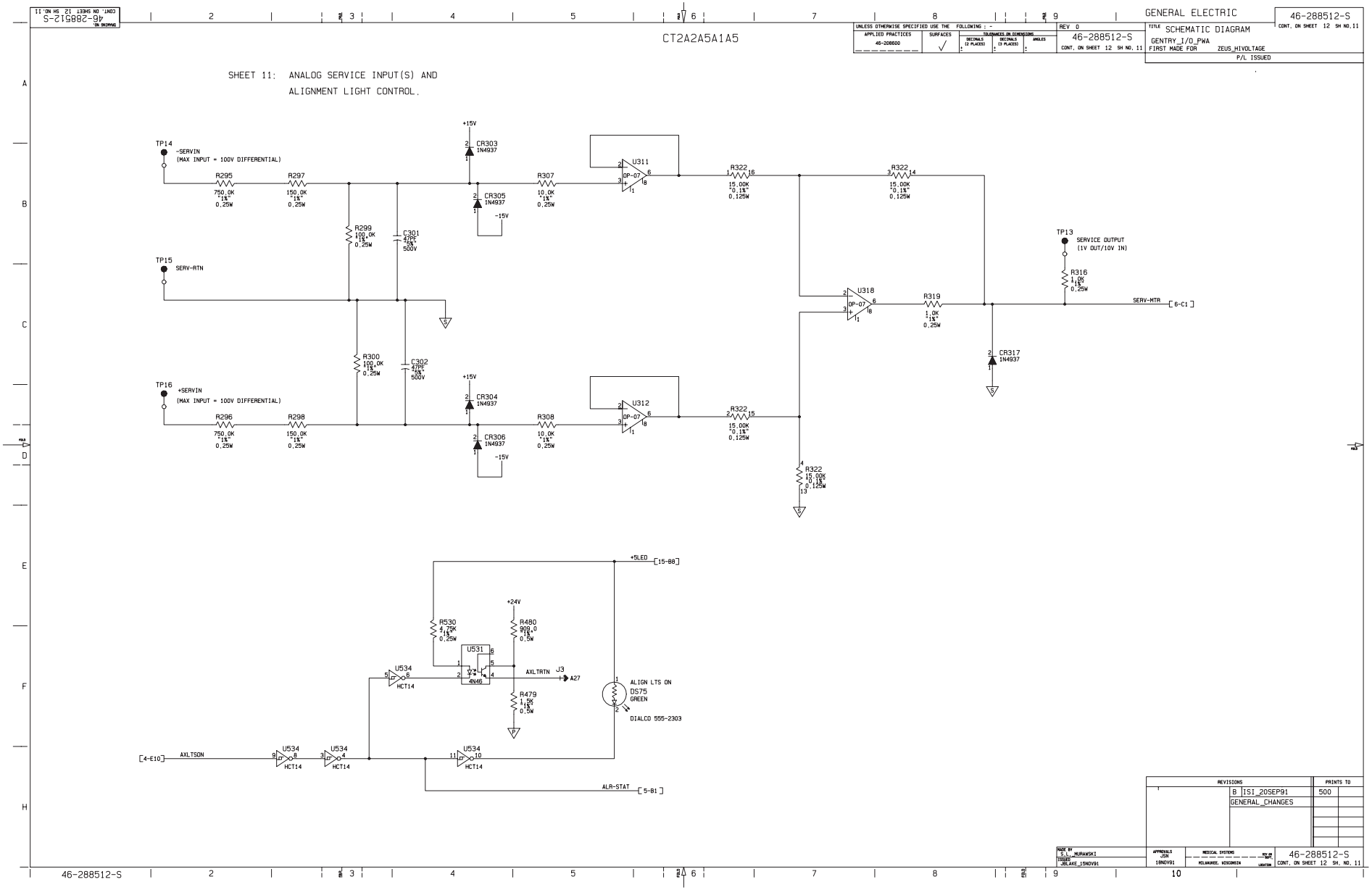


Figure 3-78 46-288512 Sheet 11 Rev. 0

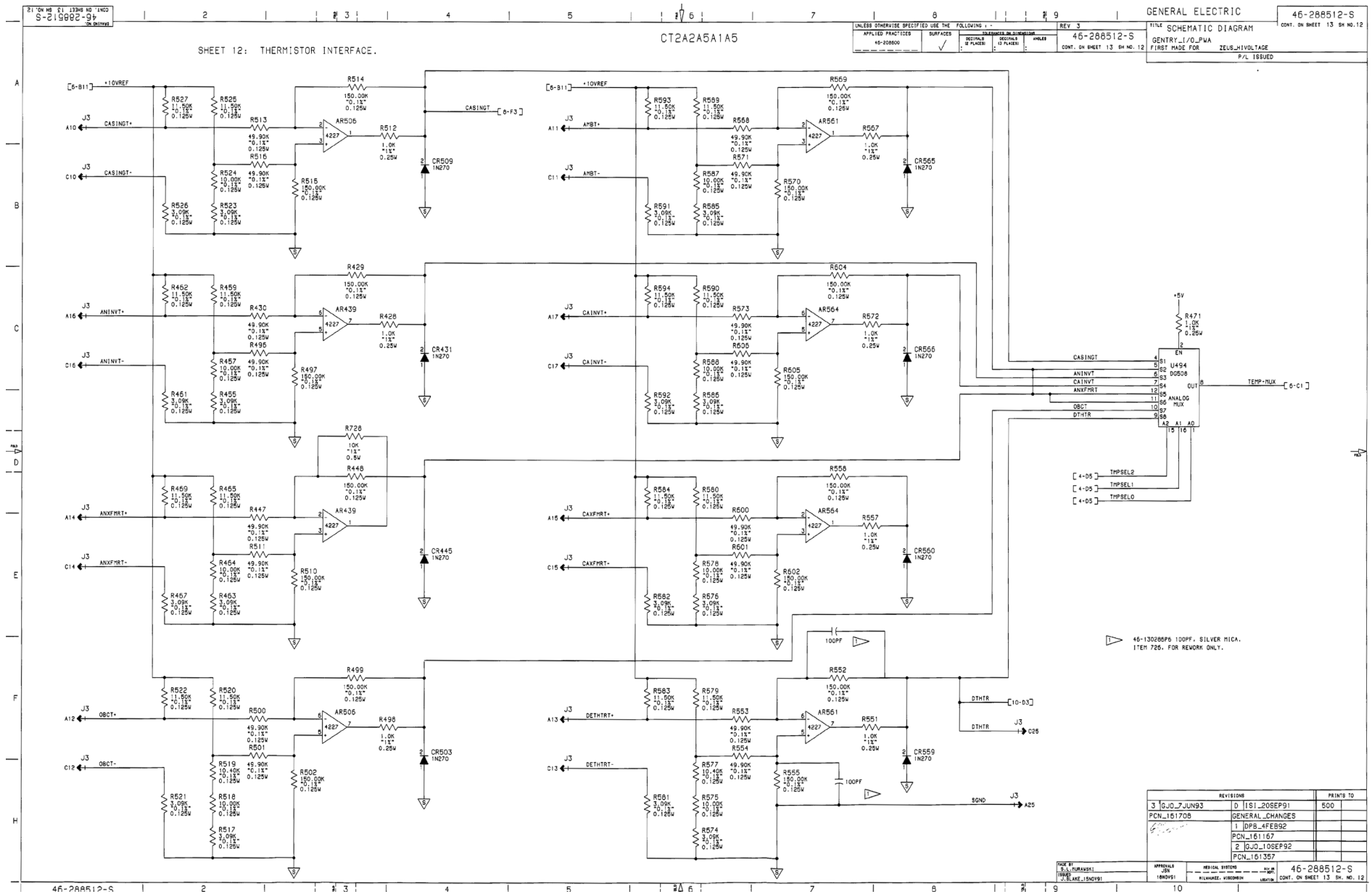


Figure 3-79 46-288512, sheet 12, rev. 3

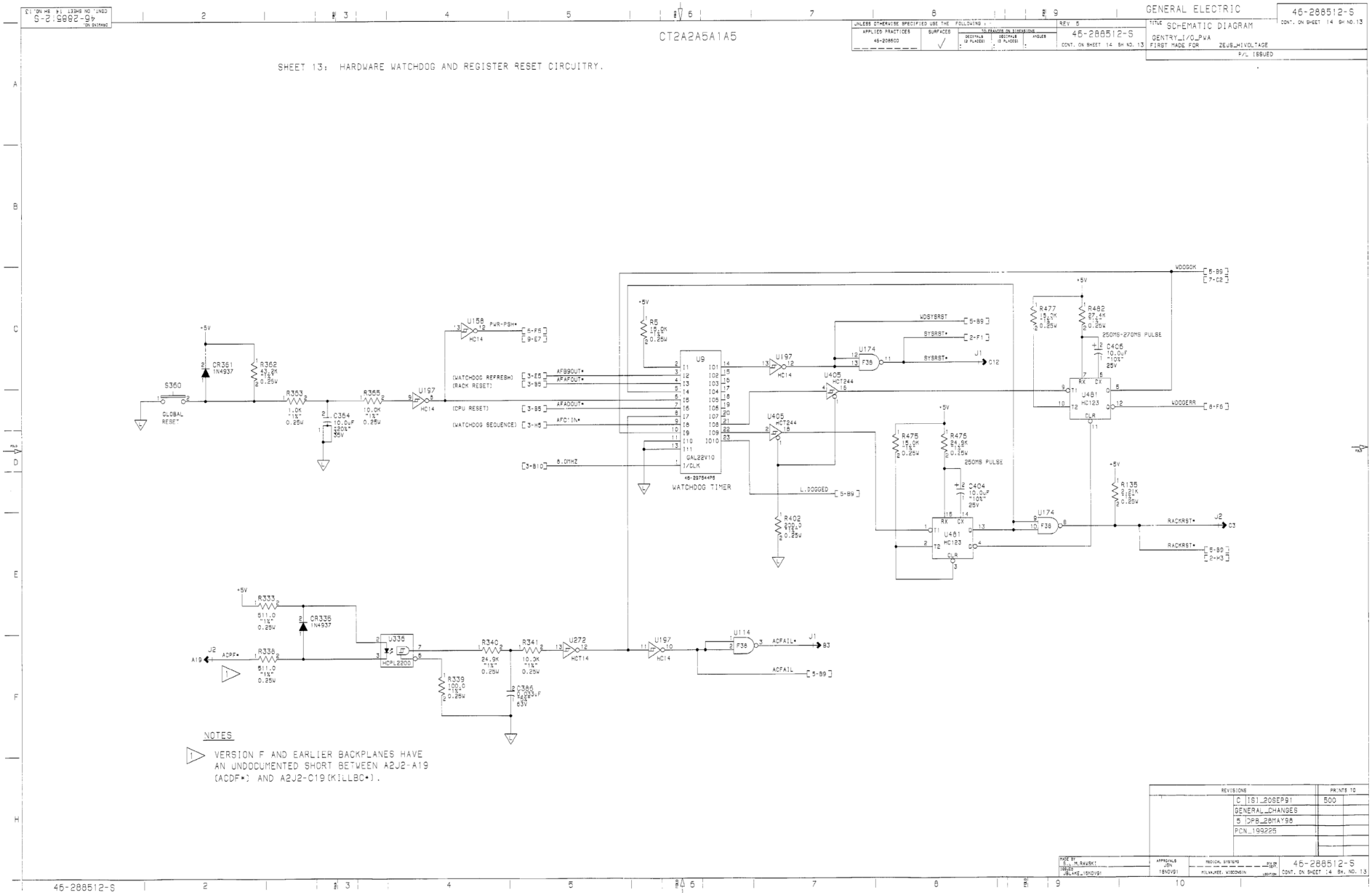


Figure 3-80 46-288512, sheet 13, rev. 5

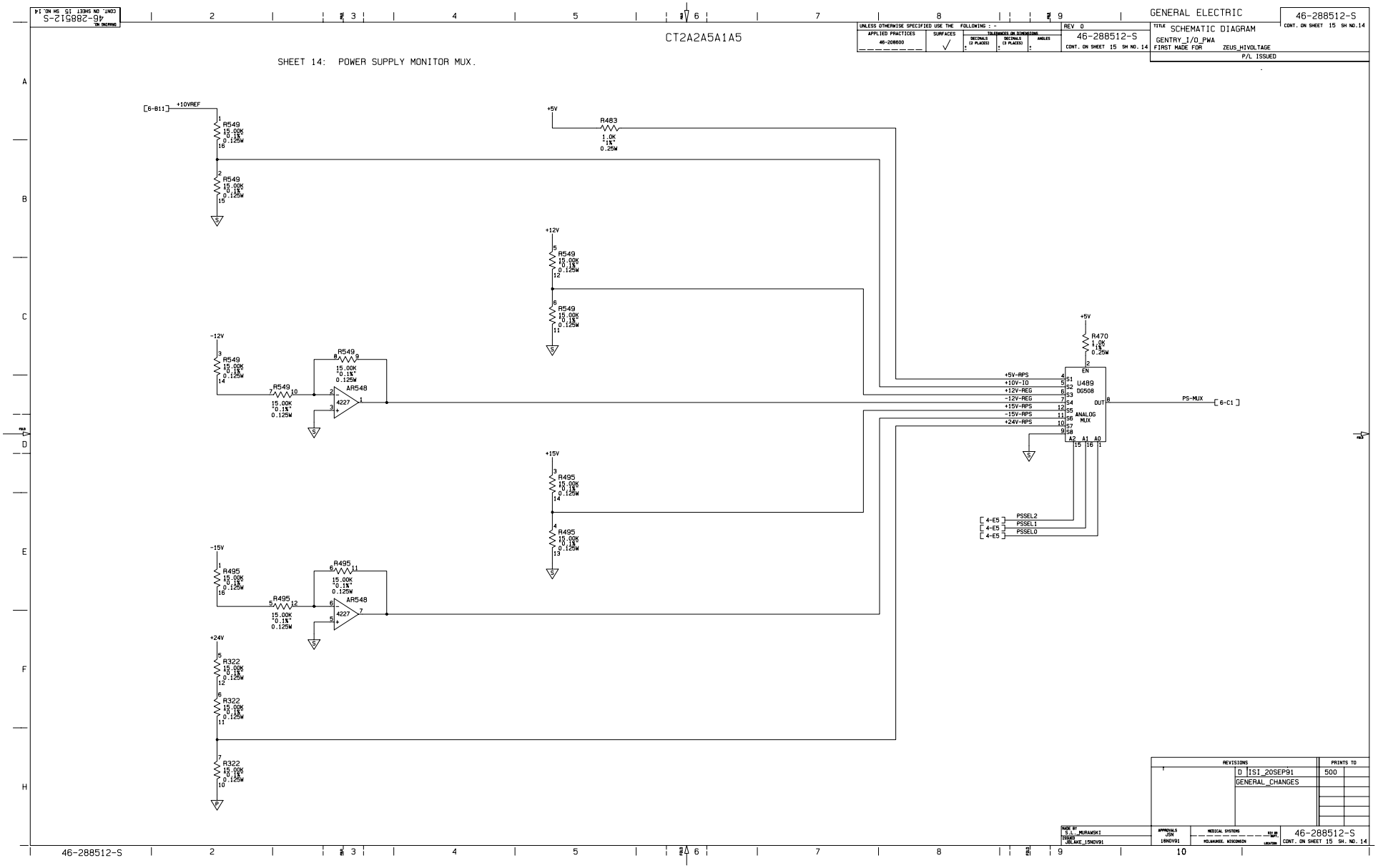


Figure 3-81 46-288512 Sheet 14 Rev. 0

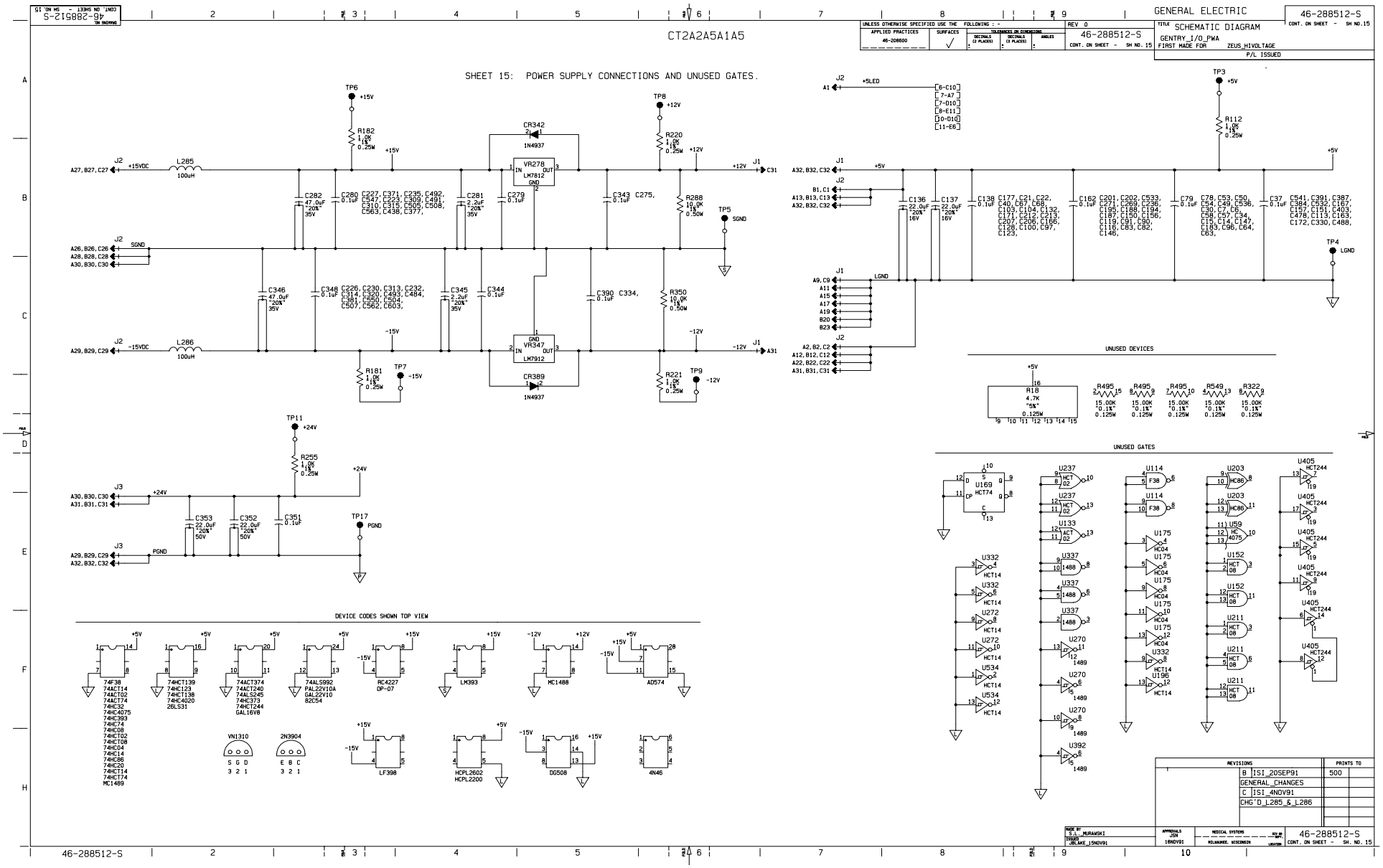


Figure 3-82 46-288512 Sheet 15 Rev. 0

4.3 HEMRC Control Board - 2179860

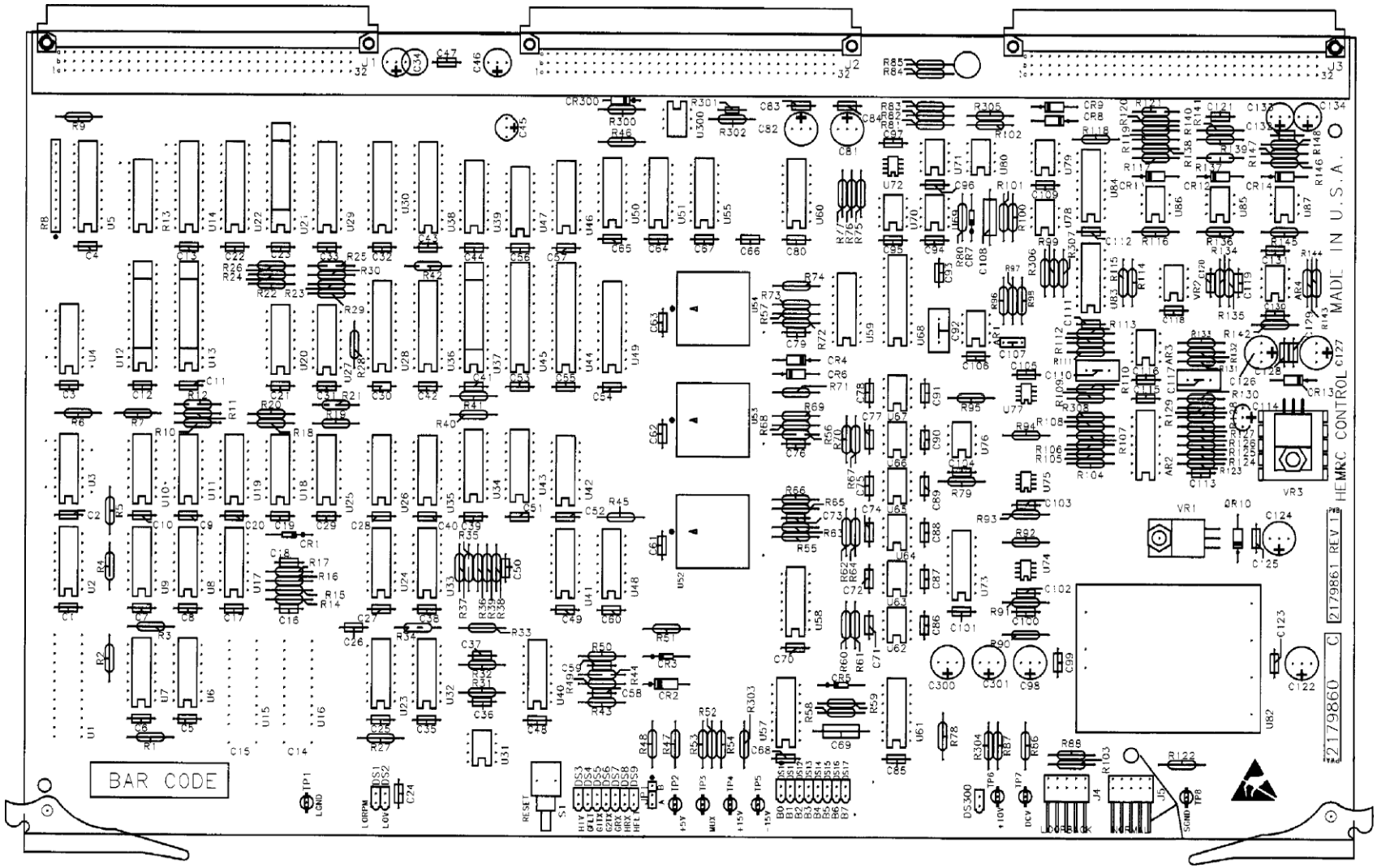


Figure 3-83 HEMRC Control Board Layout, Rev 1

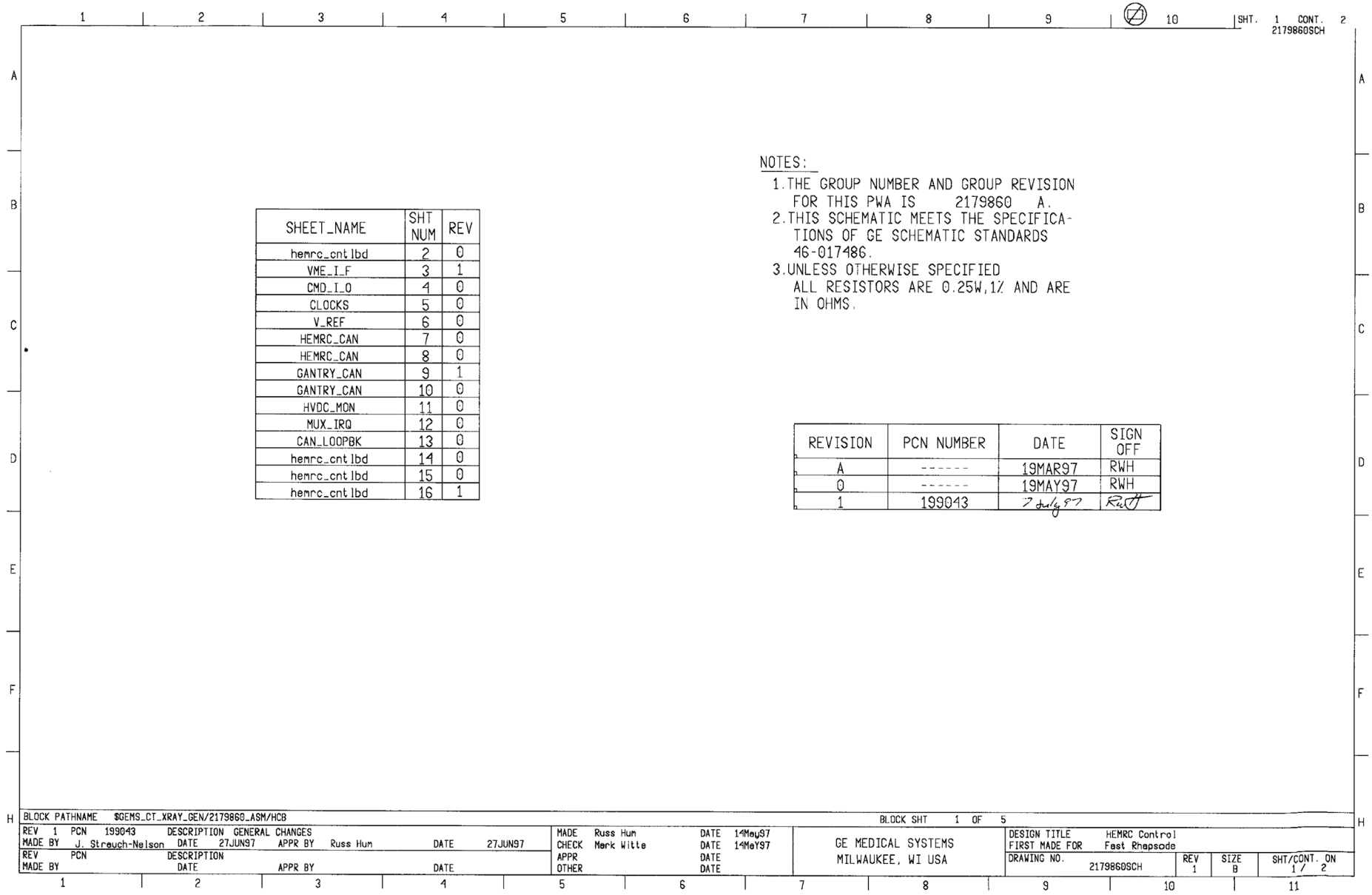


Figure 3-84 2179860, sheet 1, rev. 1

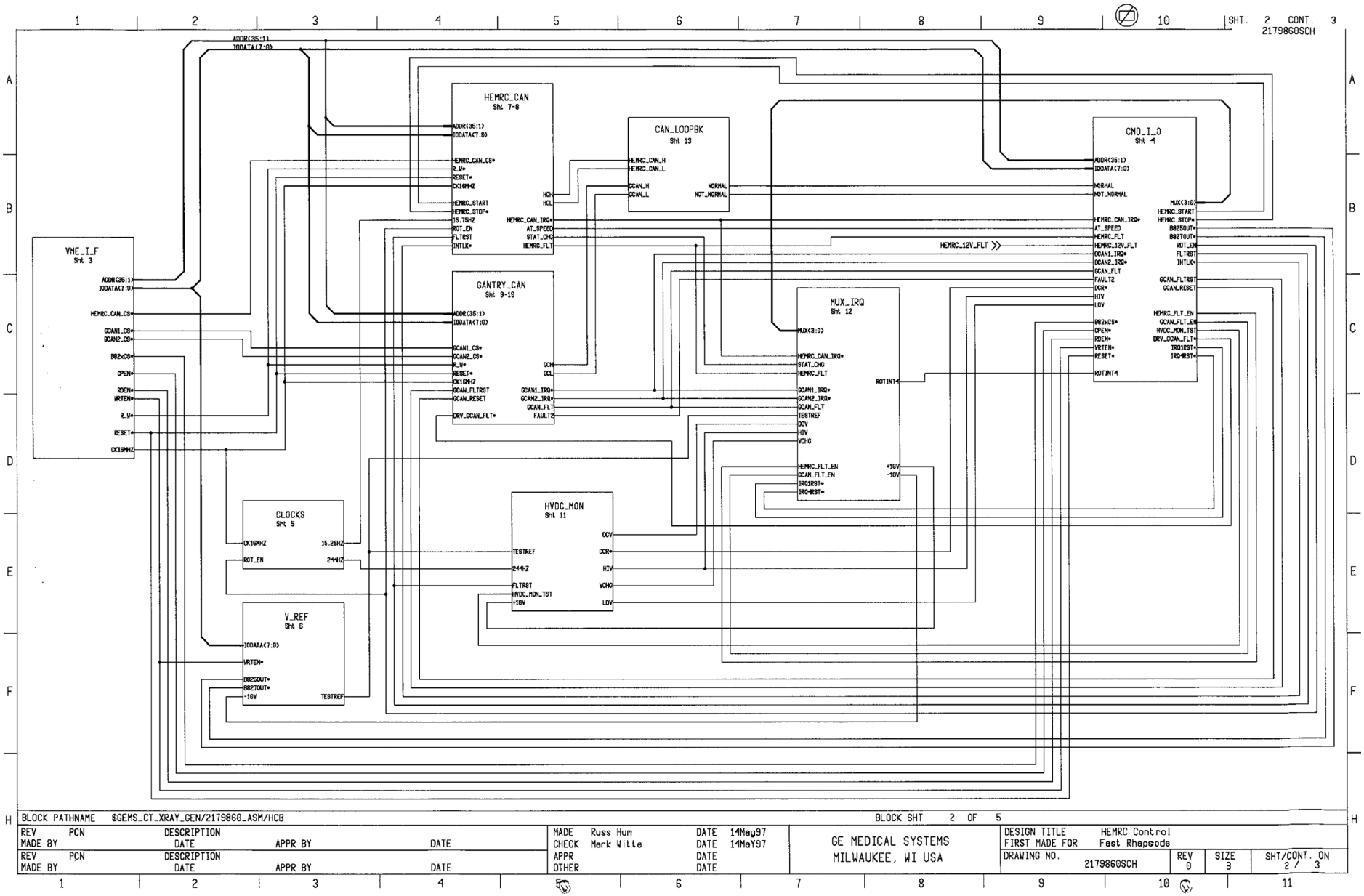


Figure 3-85 2179860, sheet 2, rev. 0

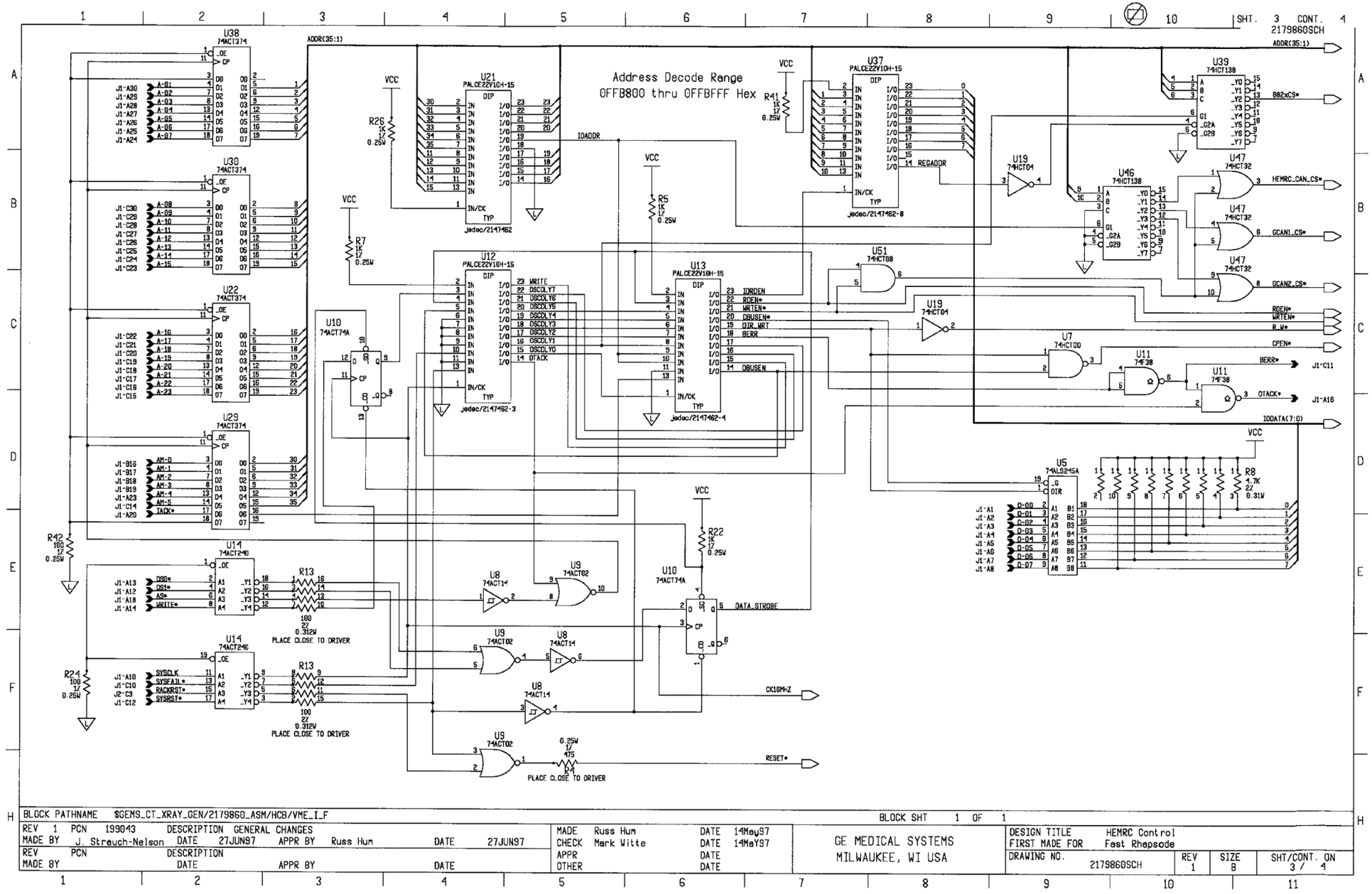


Figure 3-86 2179860, sheet 3, rev. 1

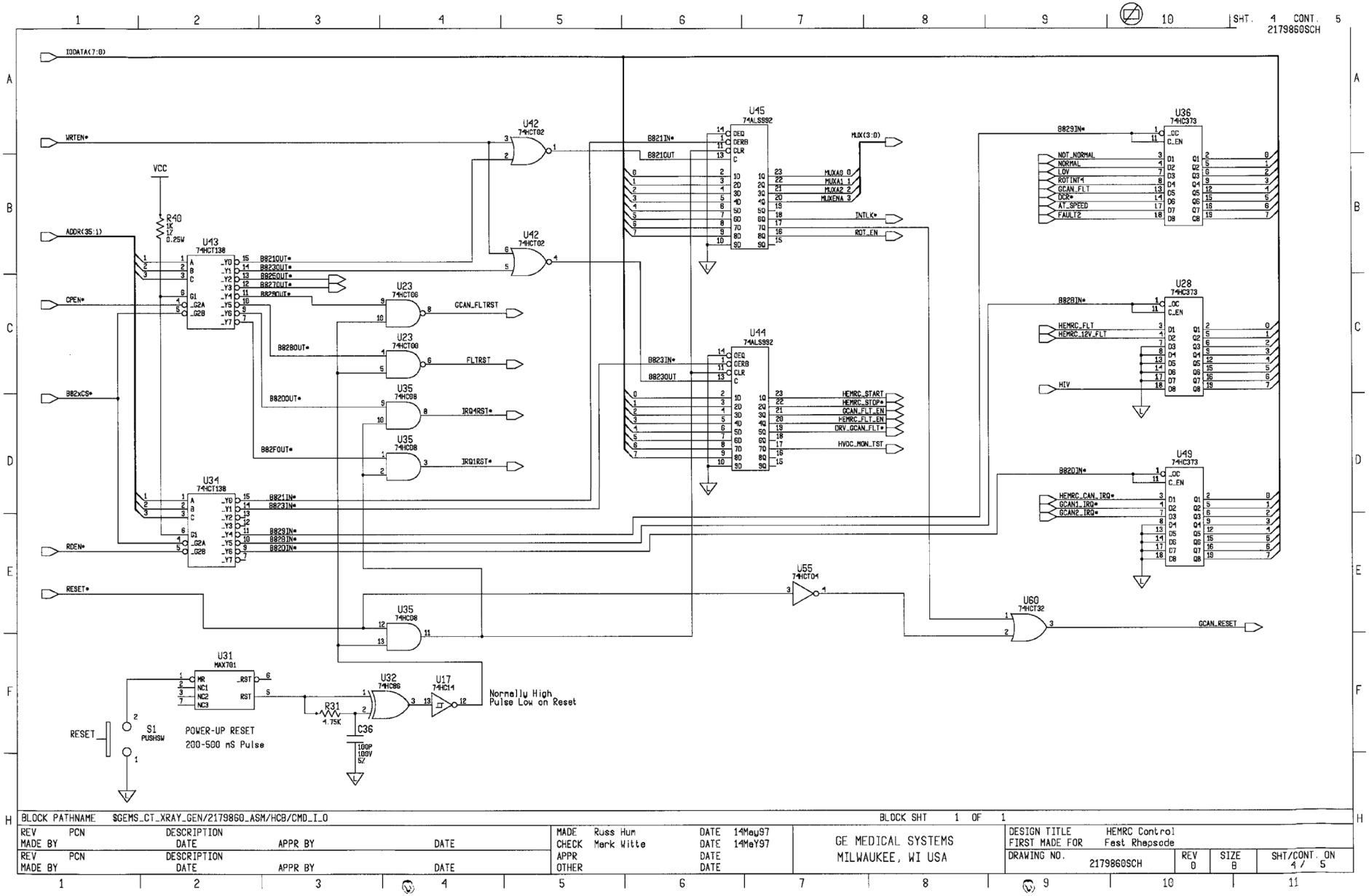


Figure 3-87 2179860, sheet 4, rev. 0

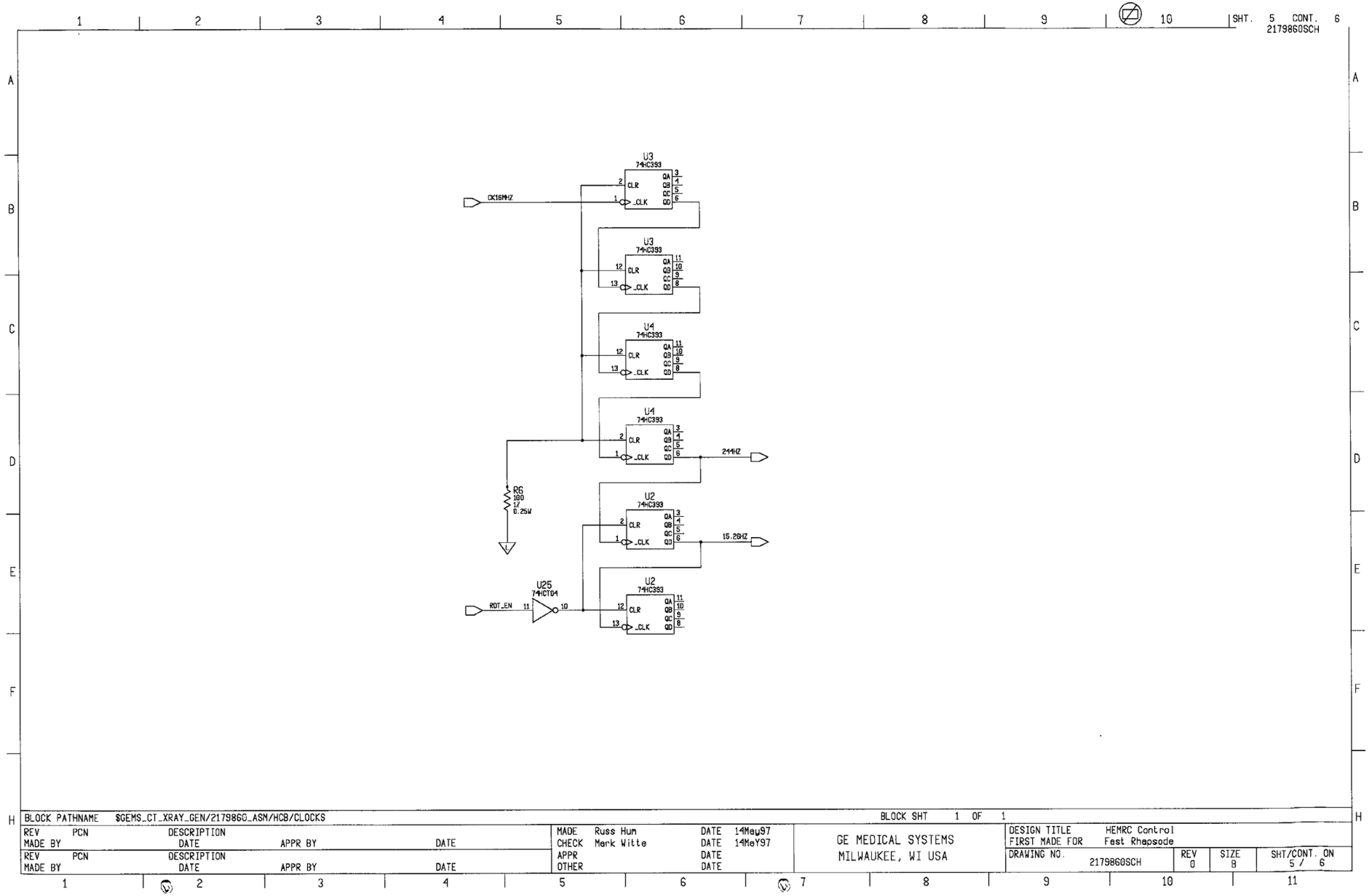


Figure 3-88 2179860, sheet 5, rev. 0

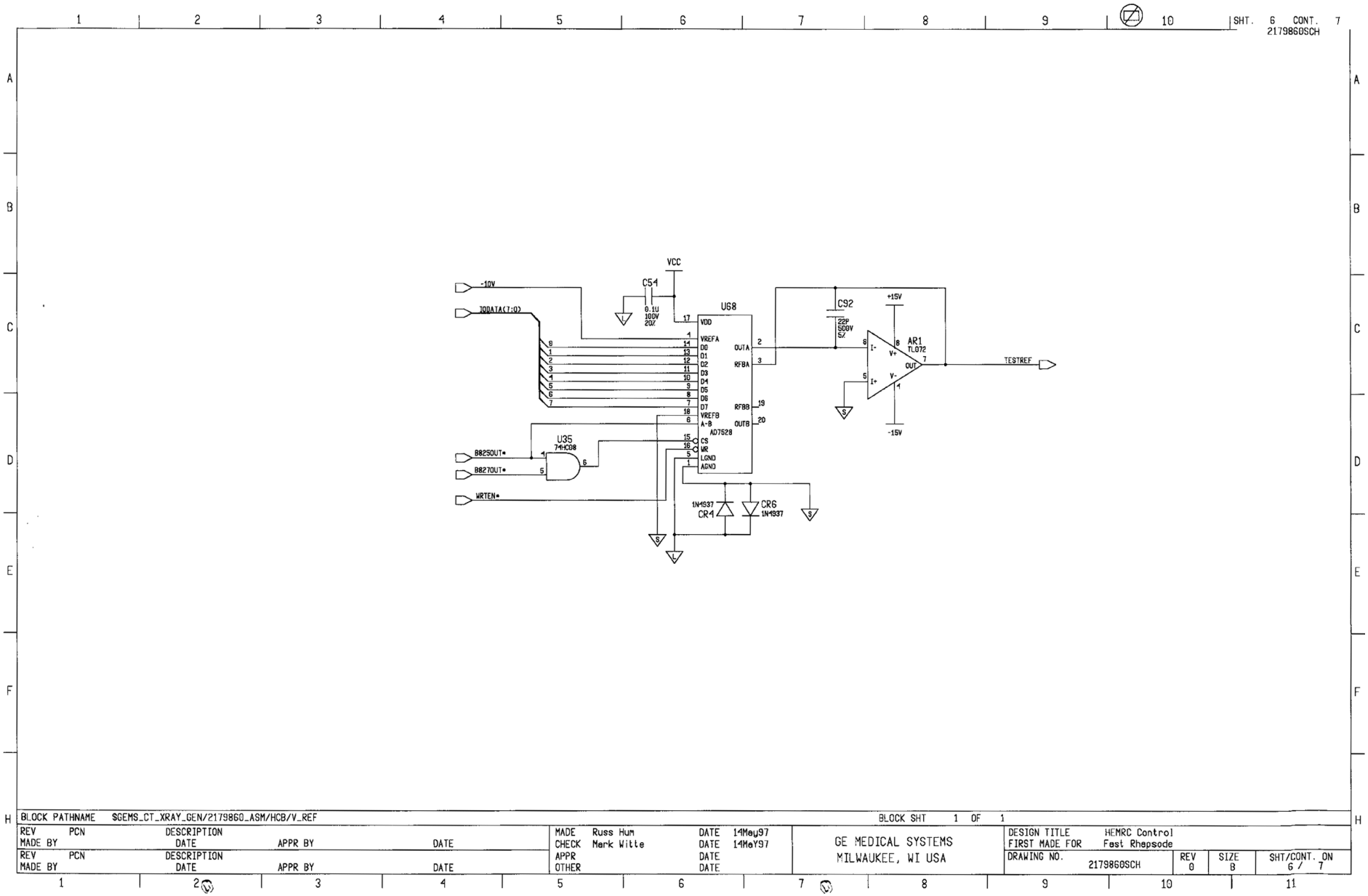


Figure 3-89 2179860, sheet 6, rev. 0

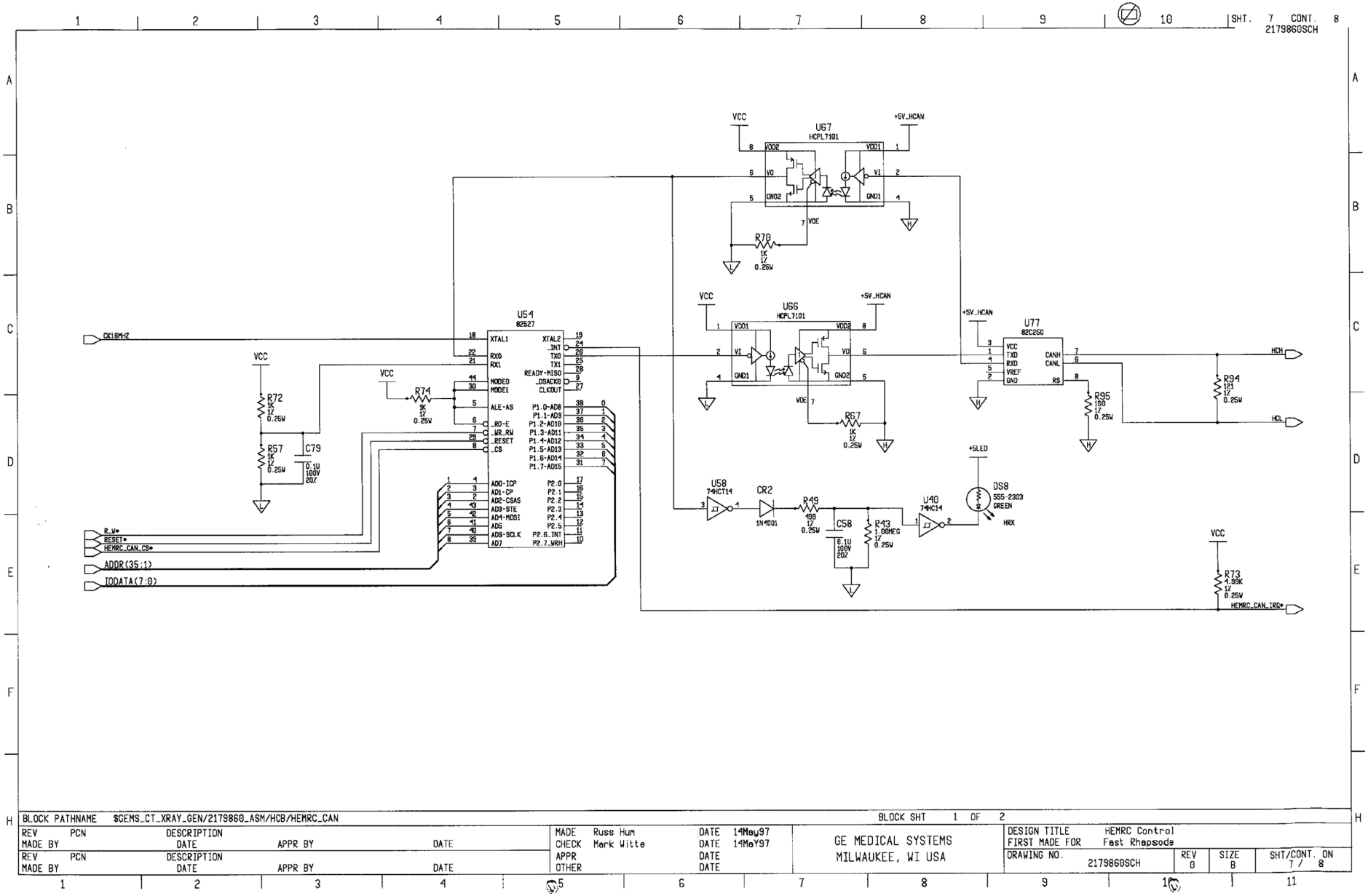


Figure 3-90 2179860, sheet 7, rev. 0

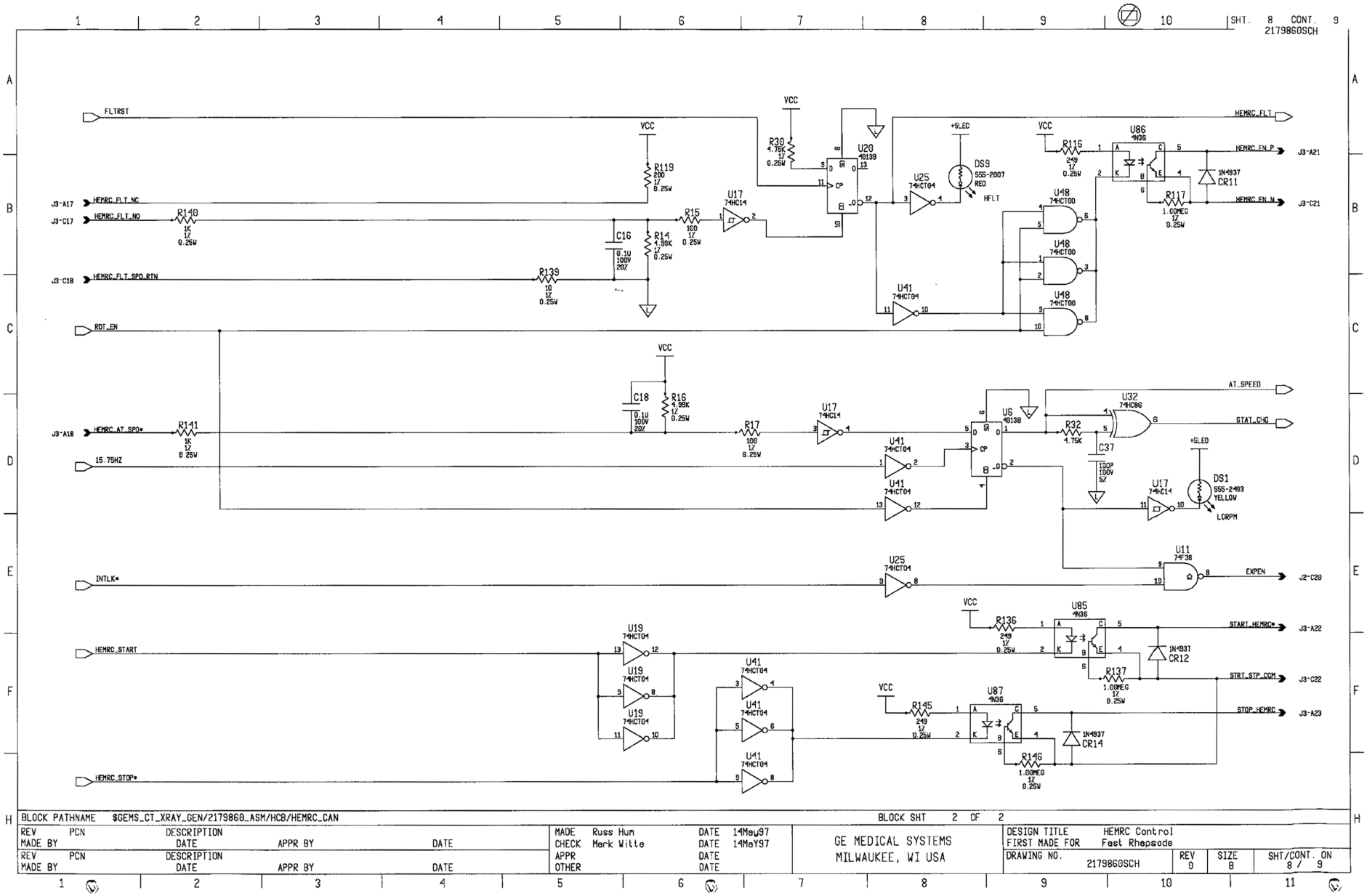


Figure 3-91 2179860, sheet 8, rev. 0

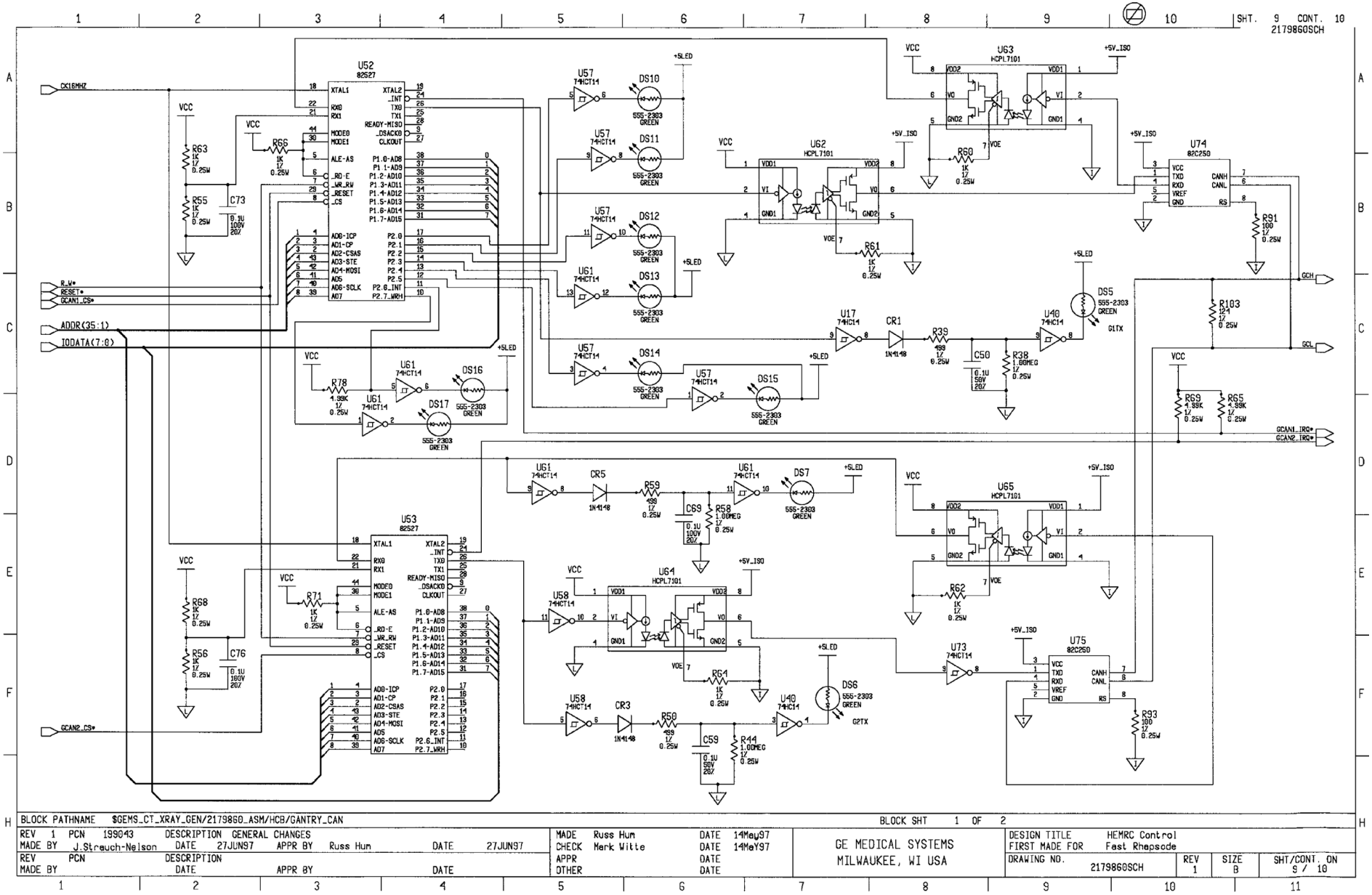


Figure 3-92 2179860, sheet 9, rev. 1

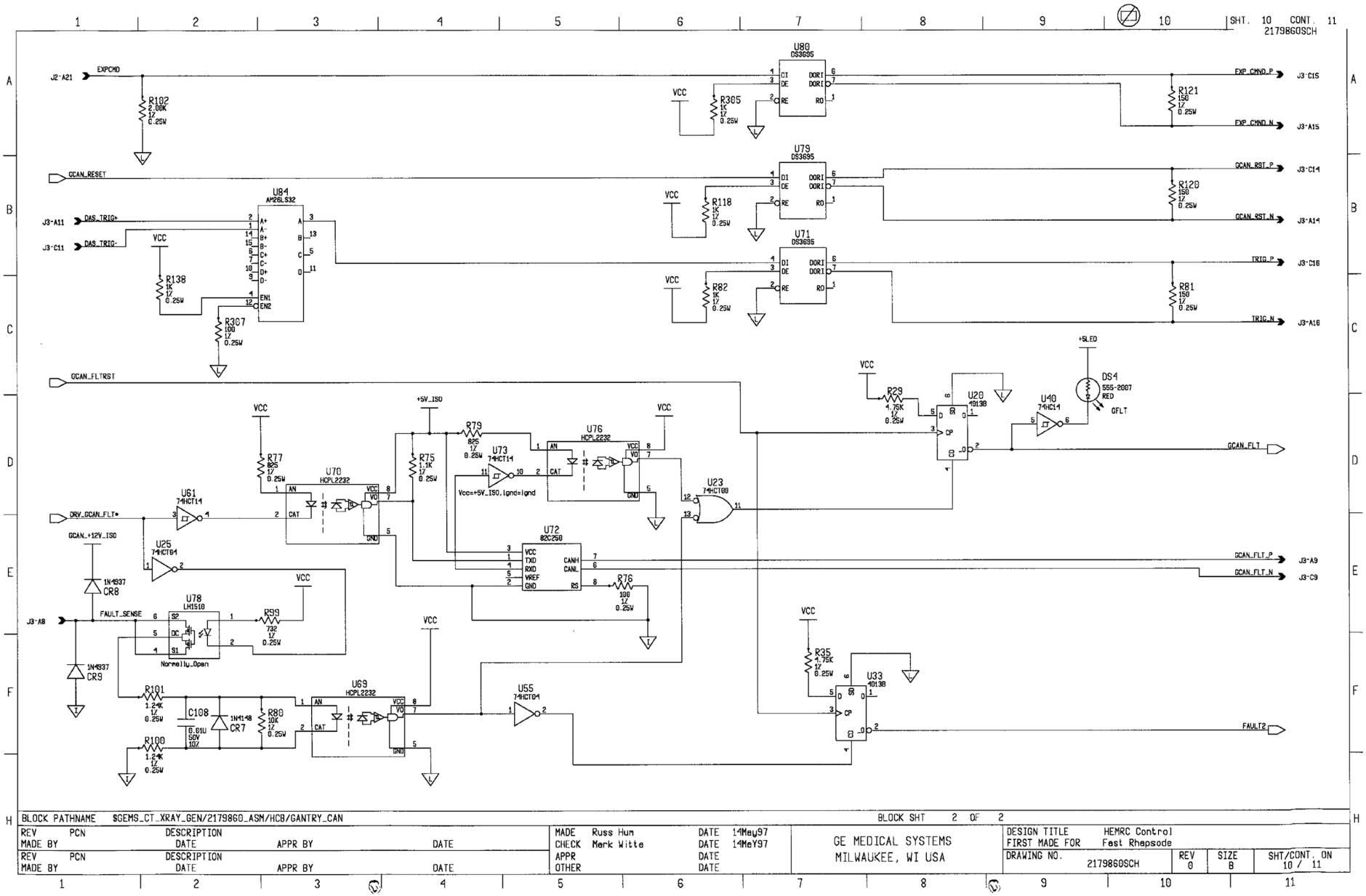


Figure 3-93 2179860, sheet 10, rev. 0

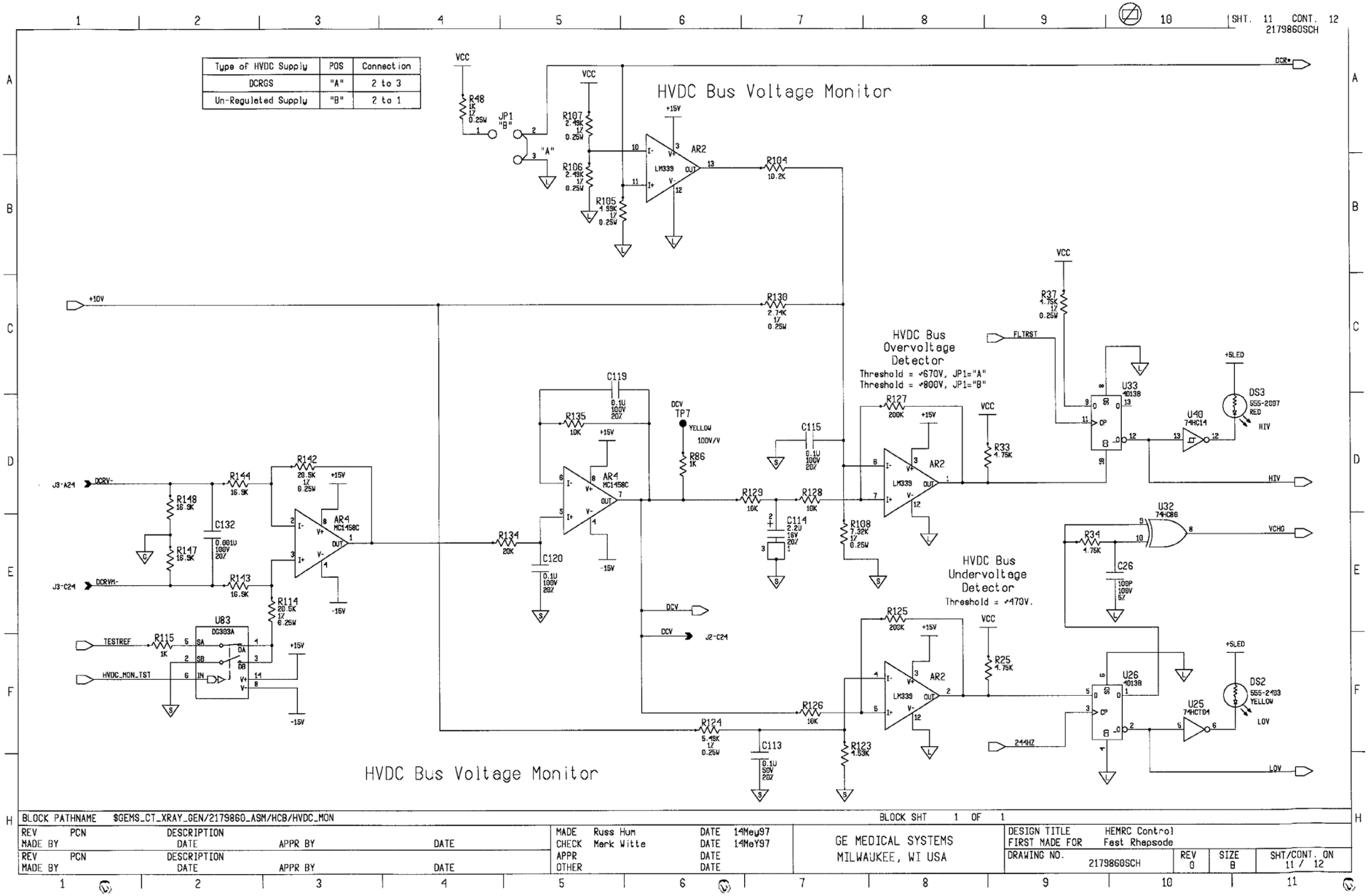


Figure 3-94 2179860, sheet 11, rev. 0

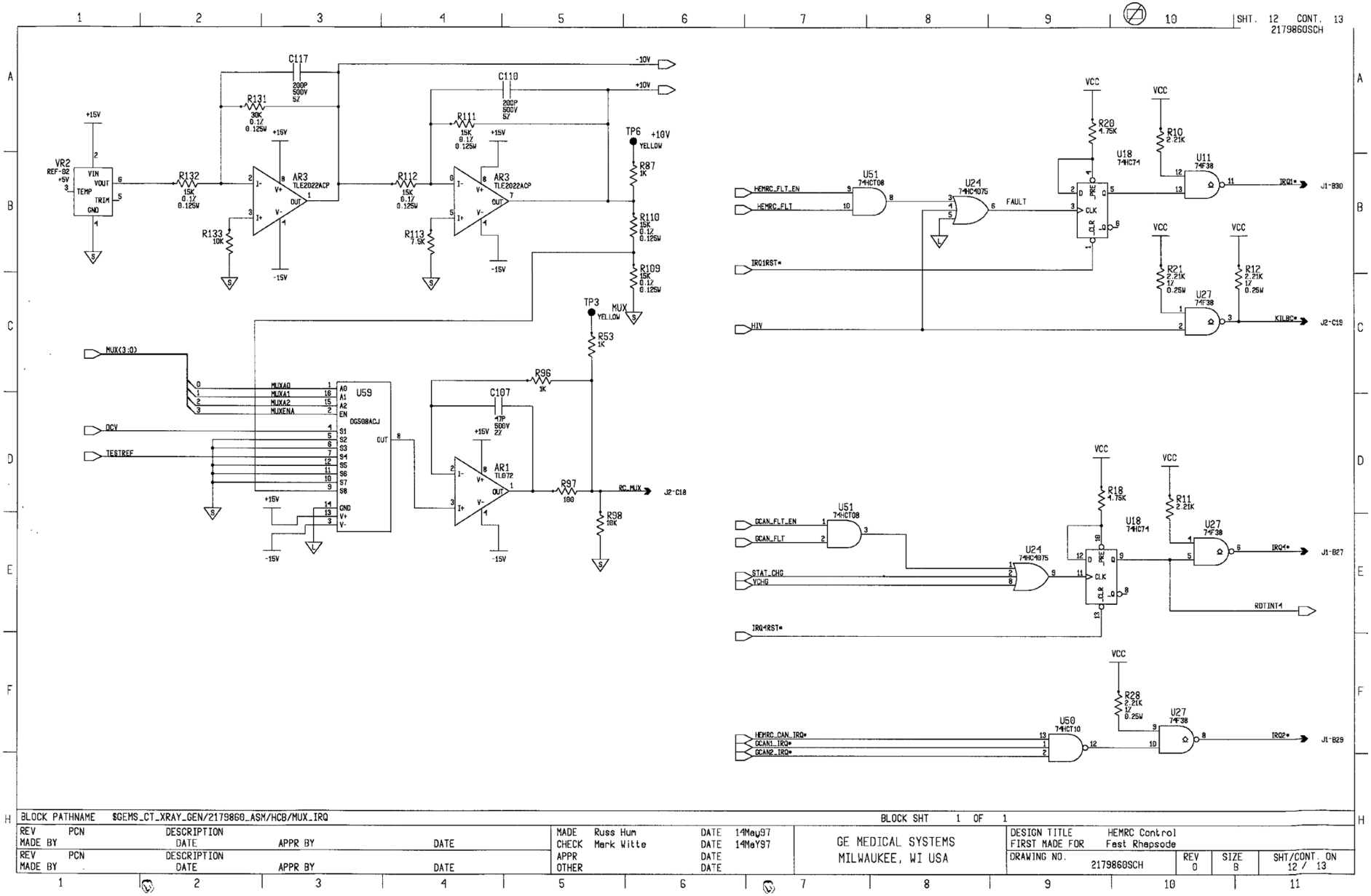


Figure 3-95 2179860, sheet 12, rev. 0

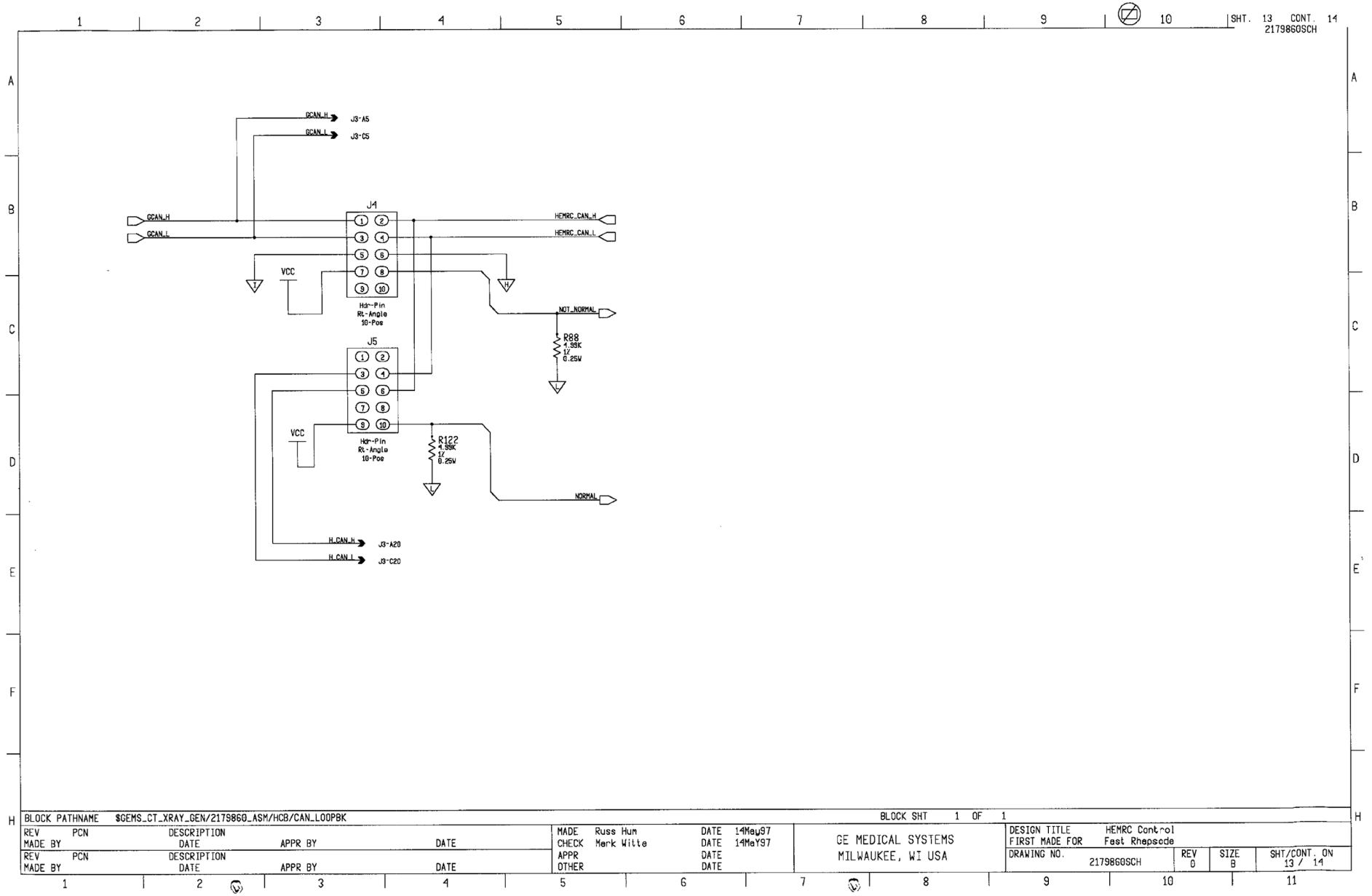


Figure 3-96 2179860, sheet 13, rev. 0

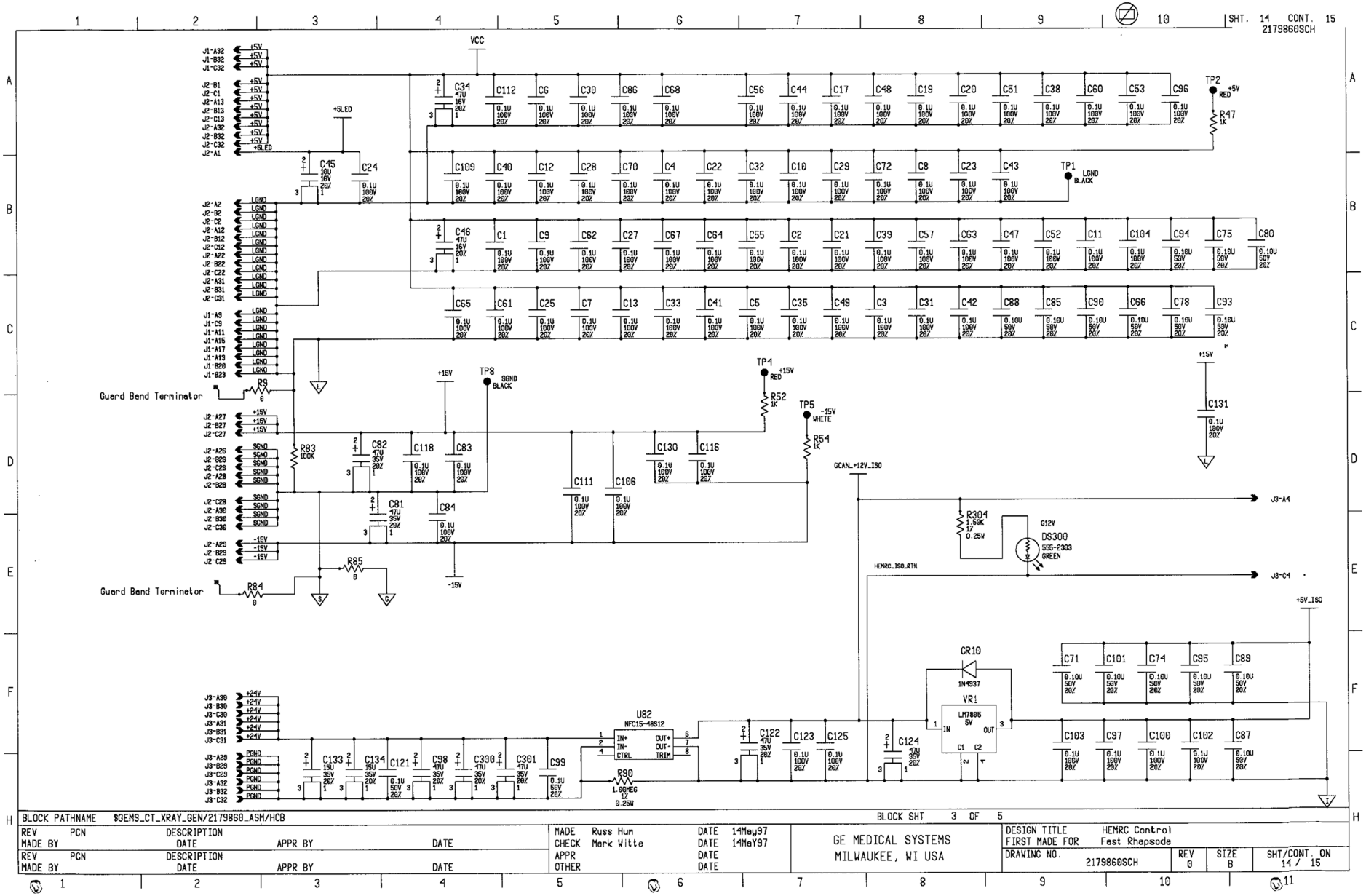


Figure 3-97 2179860, sheet 14, rev. 0

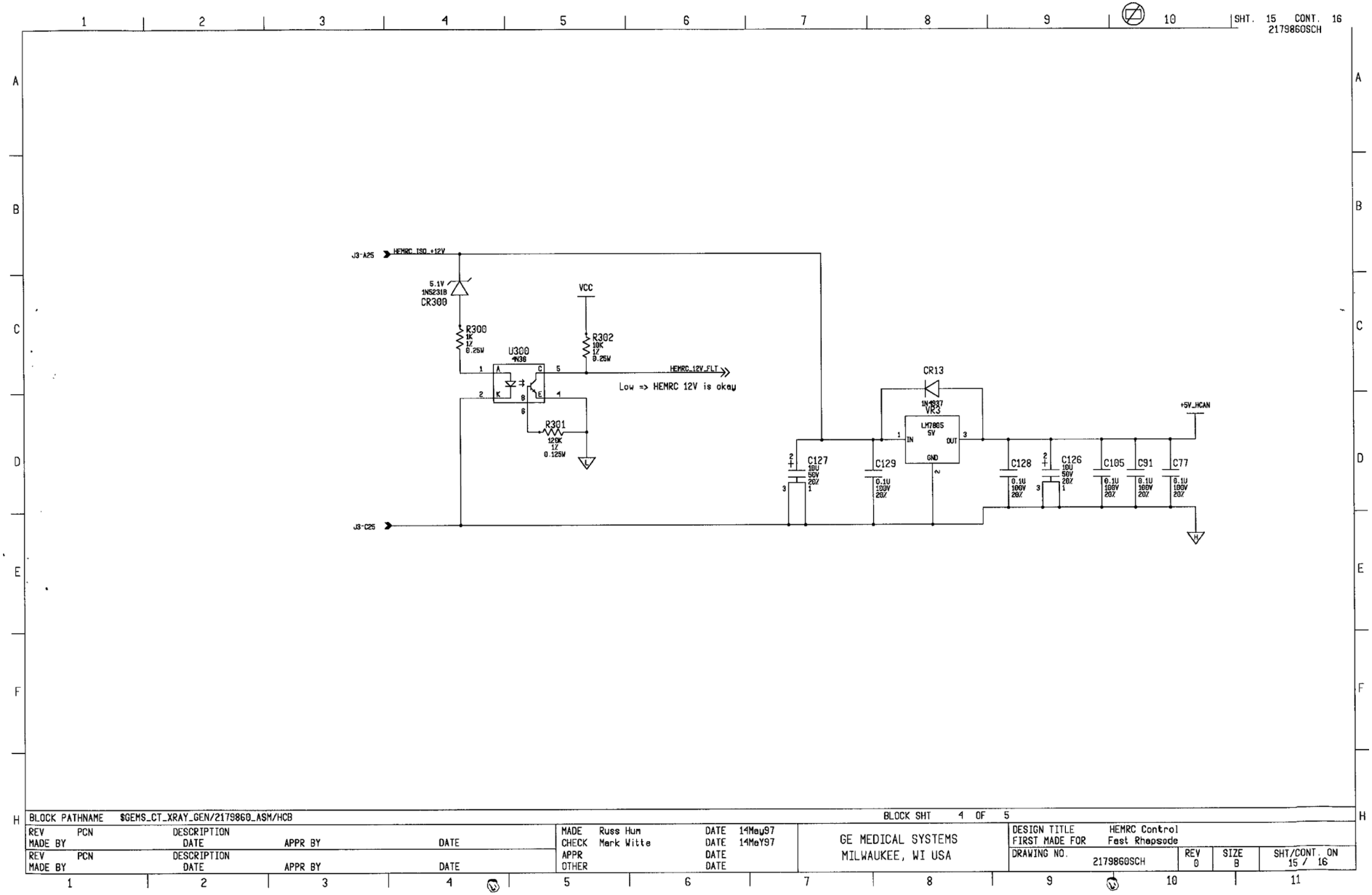


Figure 3-98 2179860, sheet 15, rev. 0

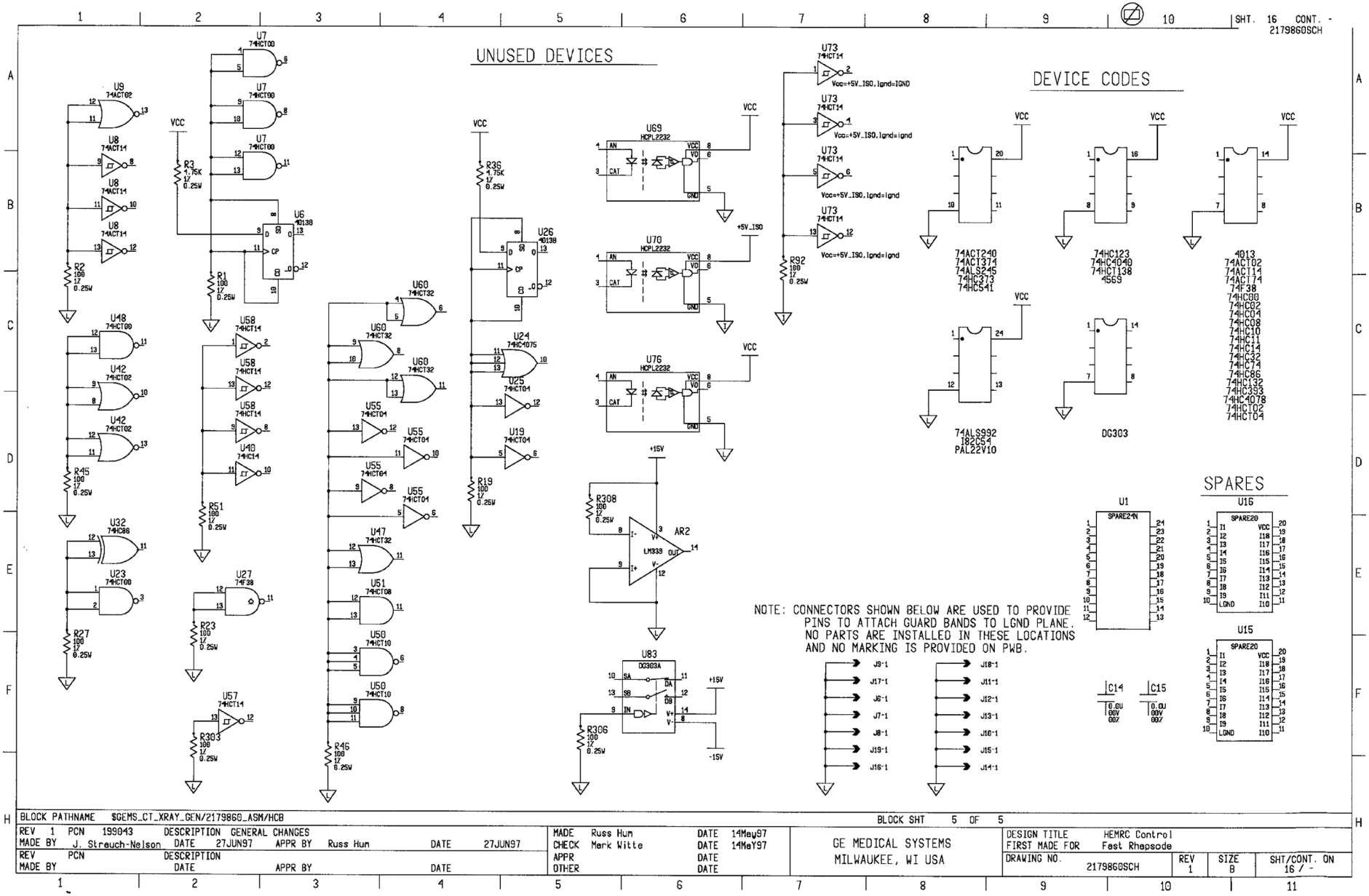


Figure 3-99 2179860, sheet 16, rev. 1

4.4 mA Control Board - 2154834

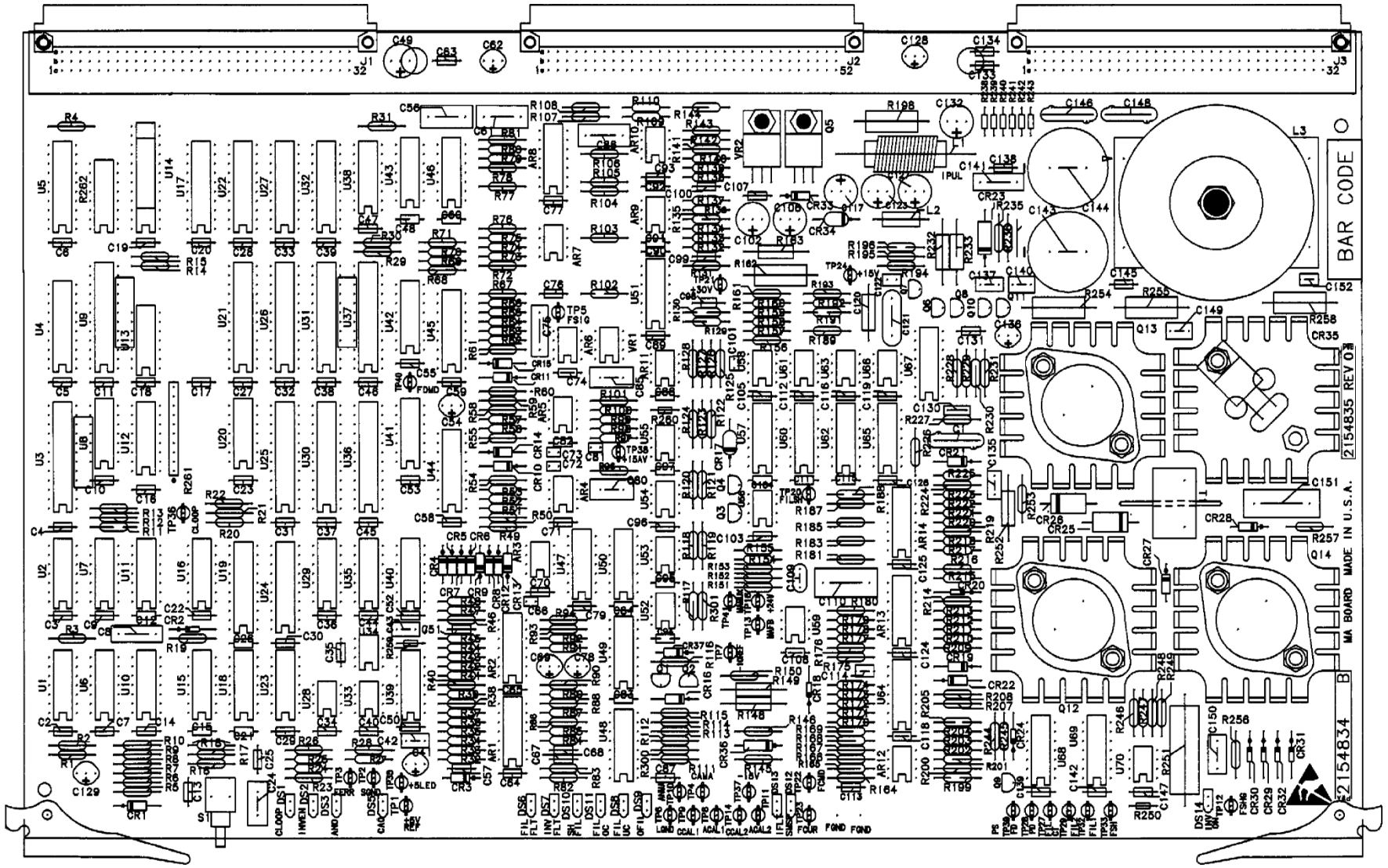
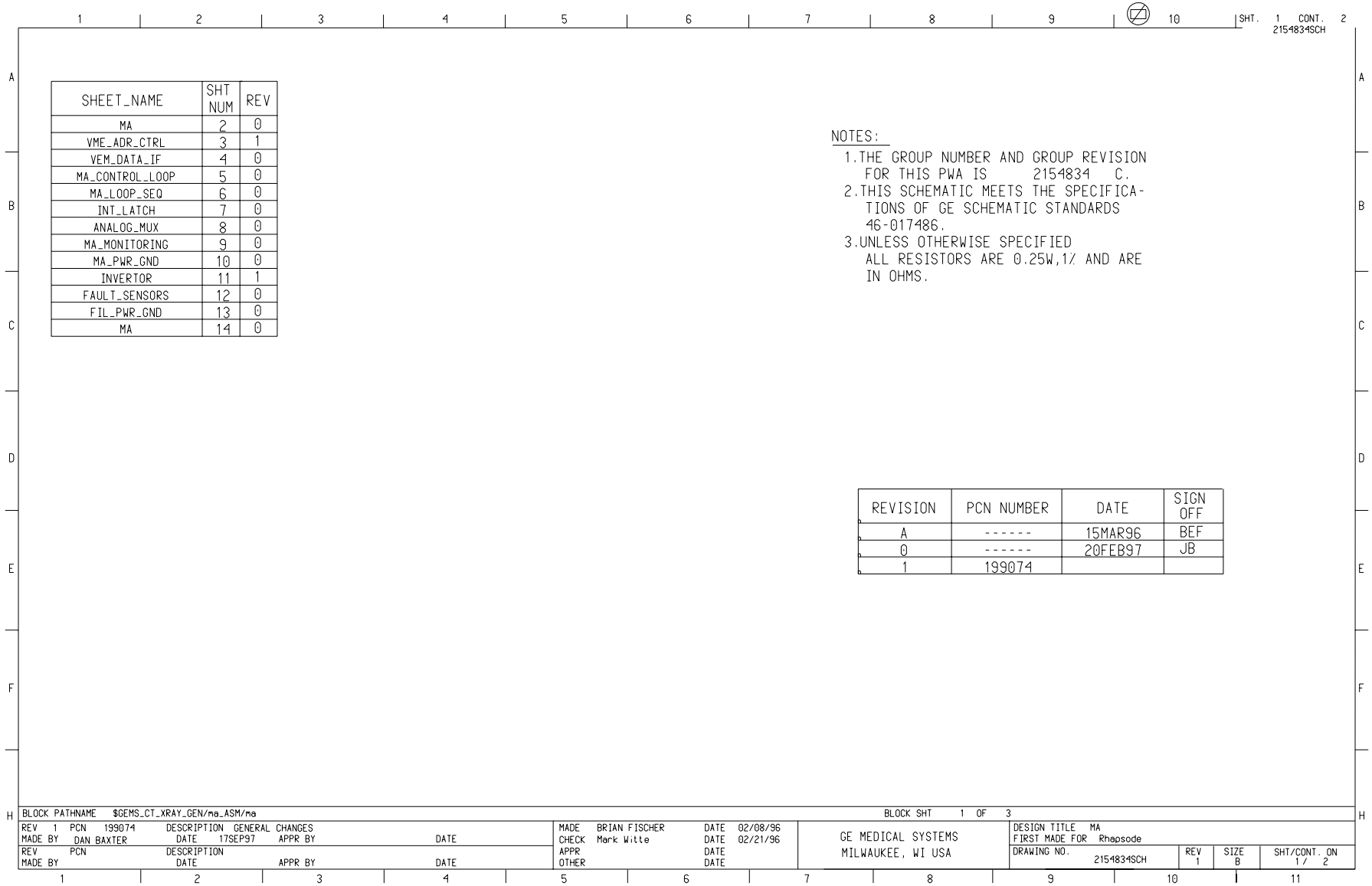


Figure 3-100 mA Control Board Layout, Rev 1



SHEET_NAME	SHT NUM	REV
MA	2	0
VME_ADR_CTRL	3	1
VEM_DATA_IF	4	0
MA_CONTROL_LOOP	5	0
MA_LOOP_SEQ	6	0
INT_LATCH	7	0
ANALOG_MUX	8	0
MA_MONITORING	9	0
MA_PWR_GND	10	0
INVERTOR	11	1
FAULT_SENSORS	12	0
FIL_PWR_GND	13	0
MA	14	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	15MAR96	BEF
0	------	20FEB97	JB
1	199074		

Figure 3-101 2154834 Sheet 1 Rev. 1

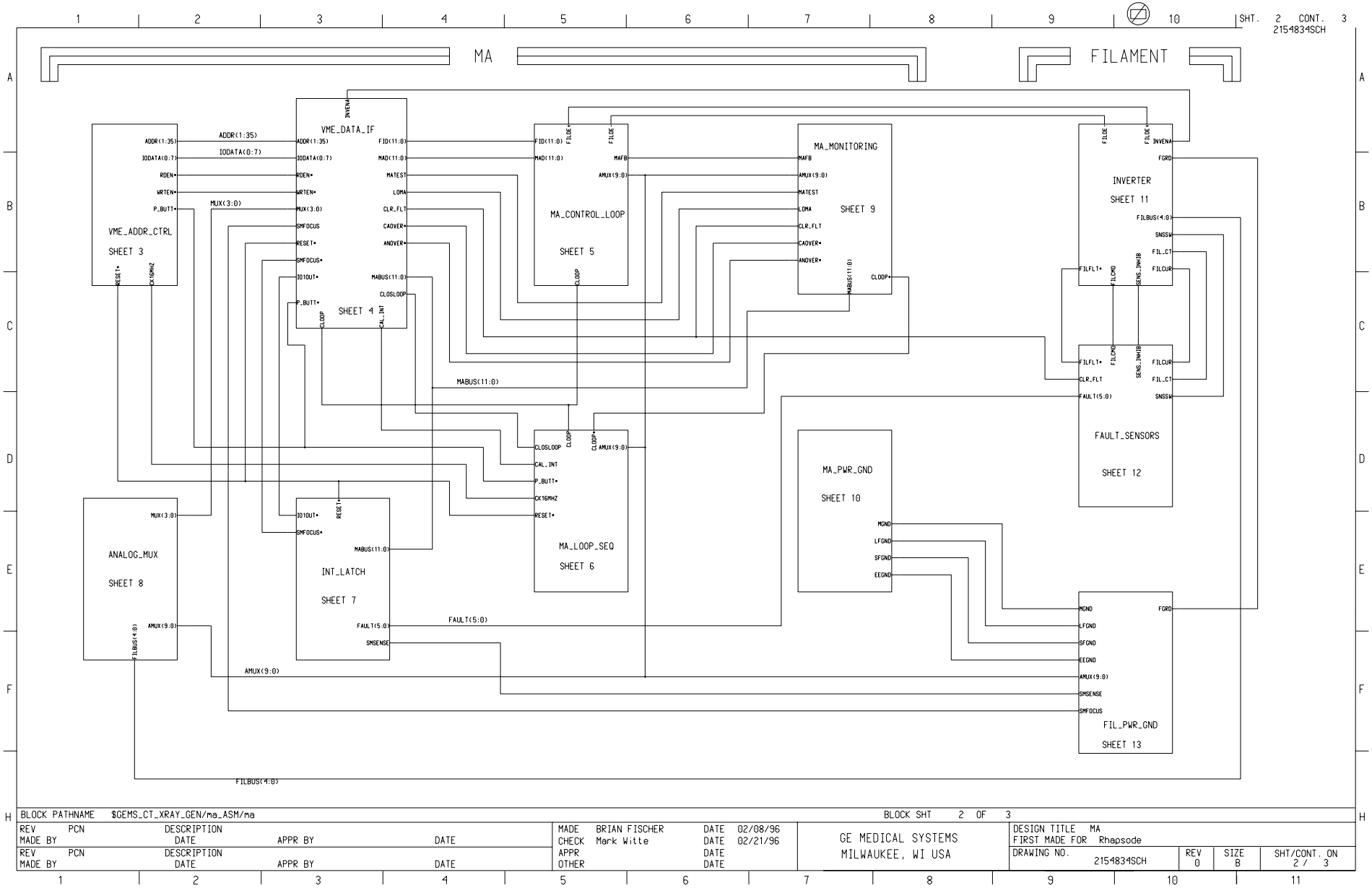


Figure 3-102 2154834 Sheet 2 Rev. 0

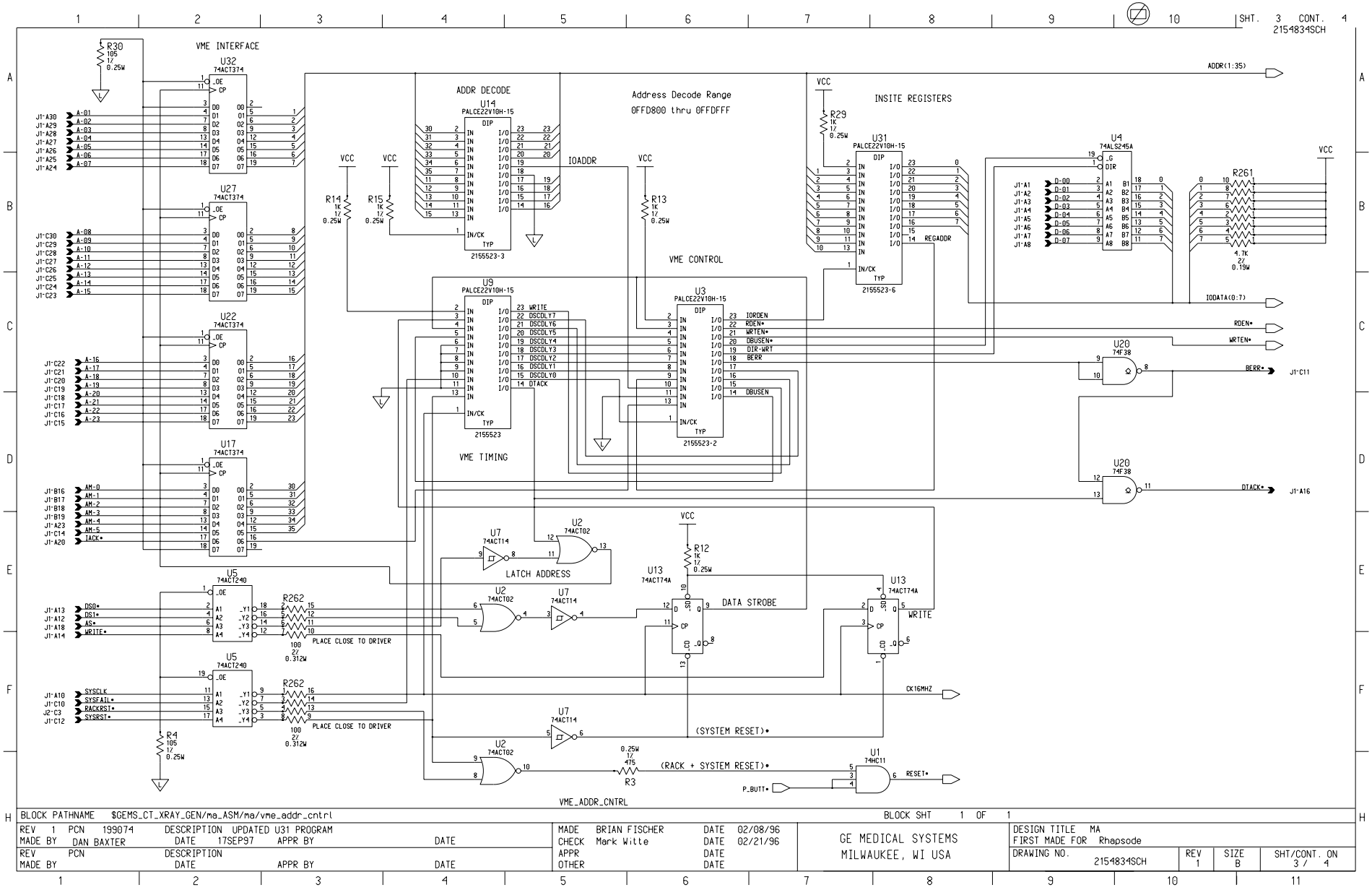


Figure 3-103 2154834 Sheet 3 Rev. 1

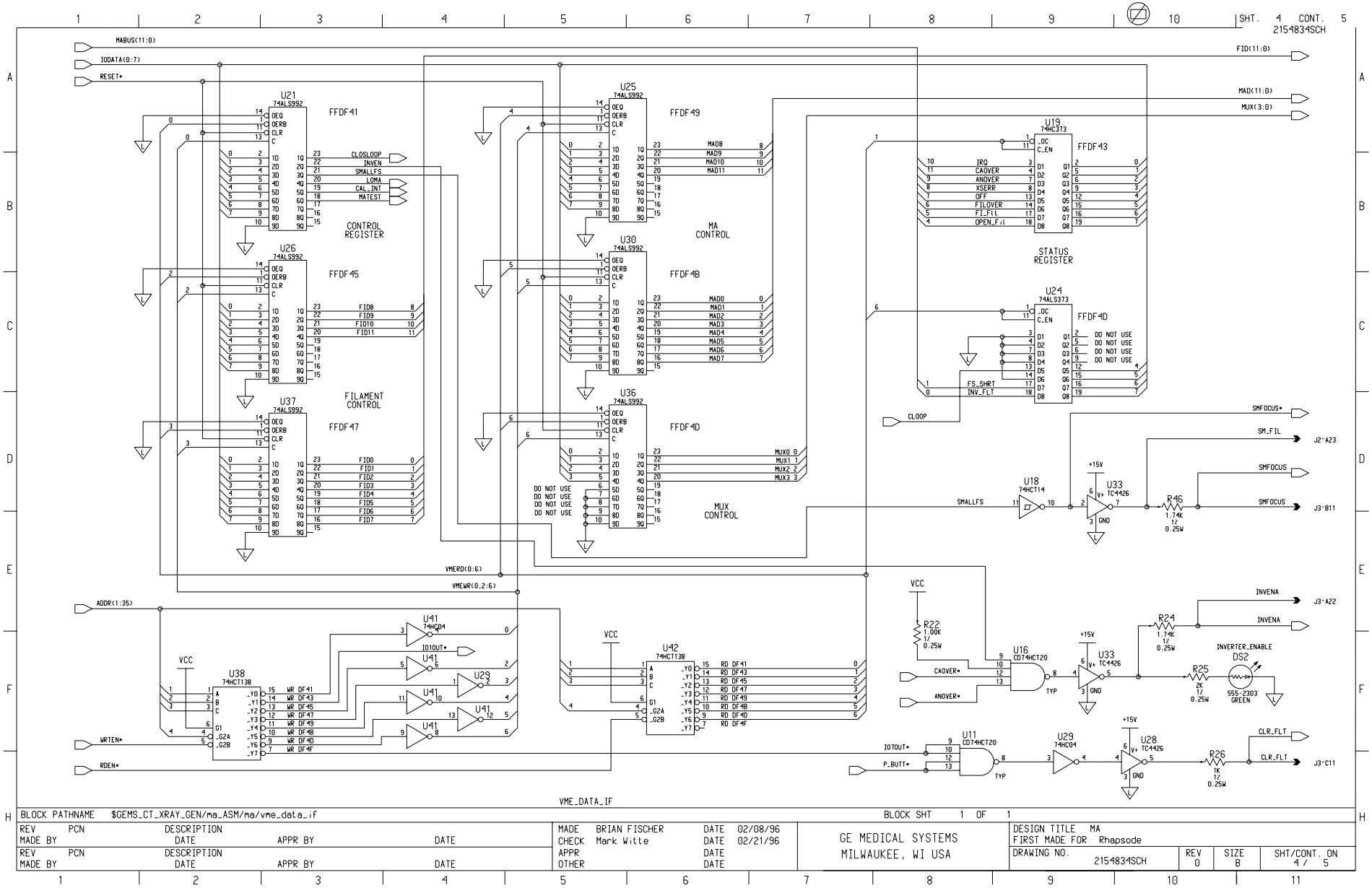


Figure 3-104 2154834 Sheet 4 Rev. 0

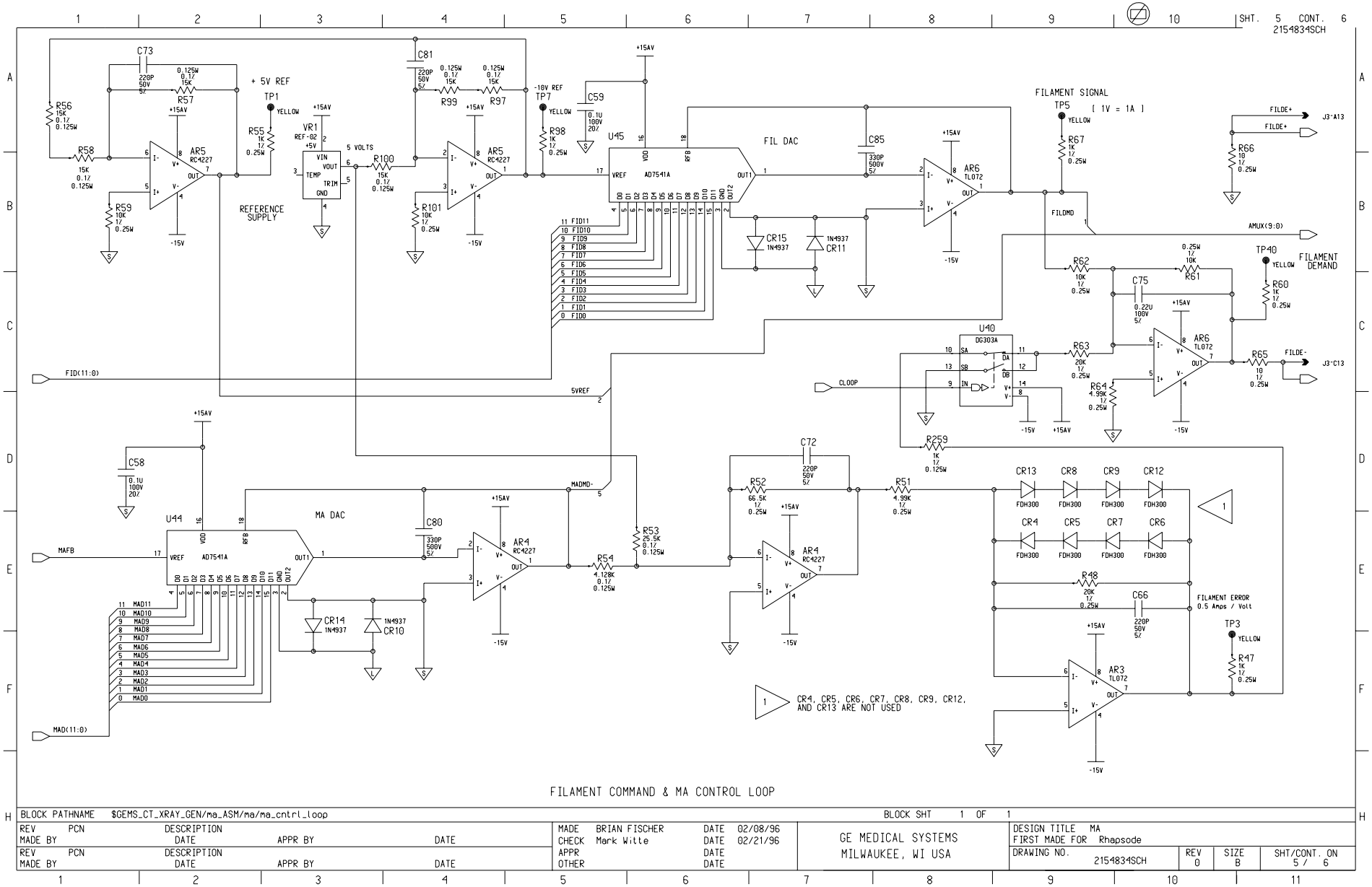


Figure 3-105 2154834 Sheet 5 Rev. 0

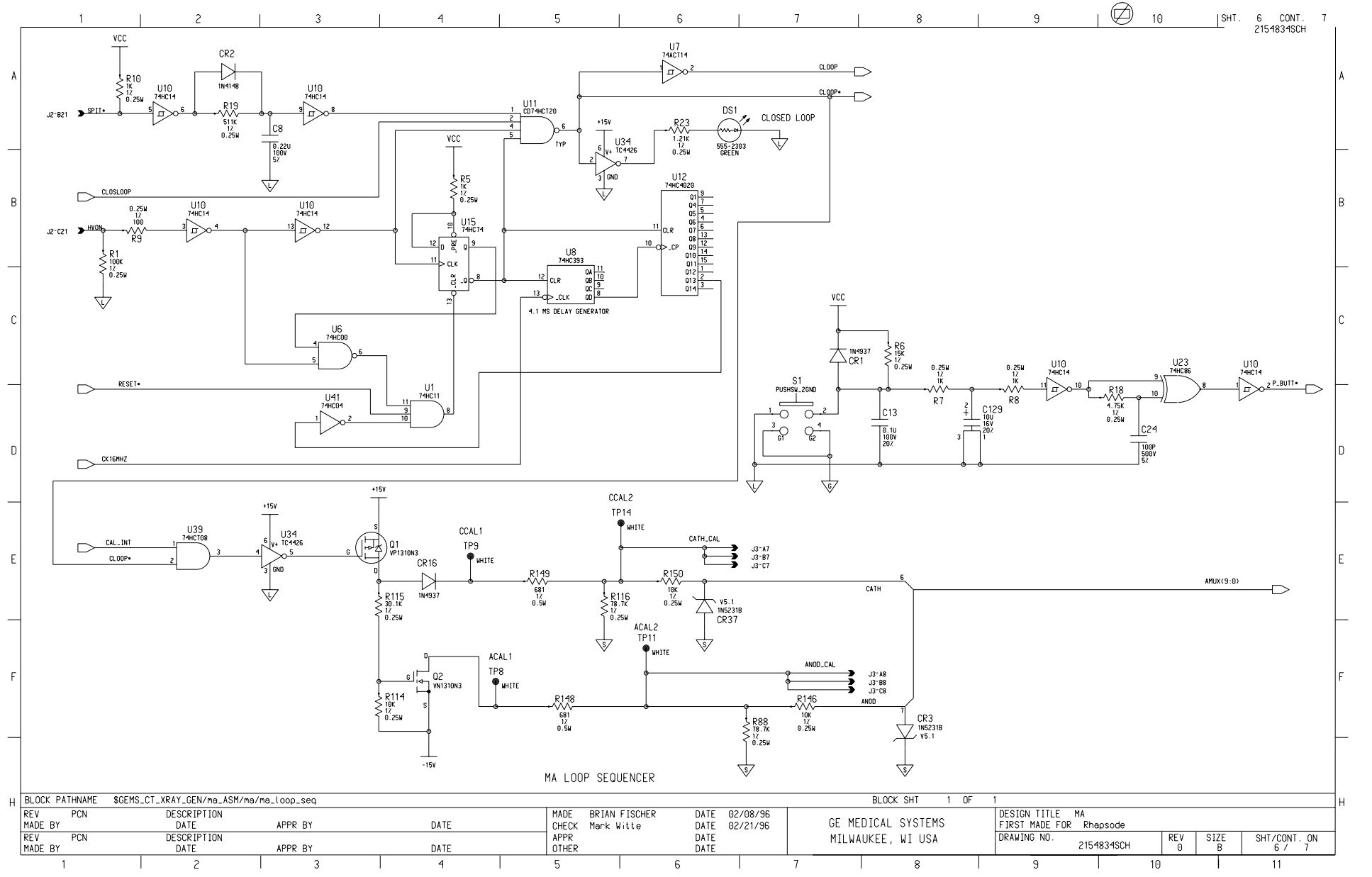


Figure 3-106 2154834 Sheet 6 Rev. 0

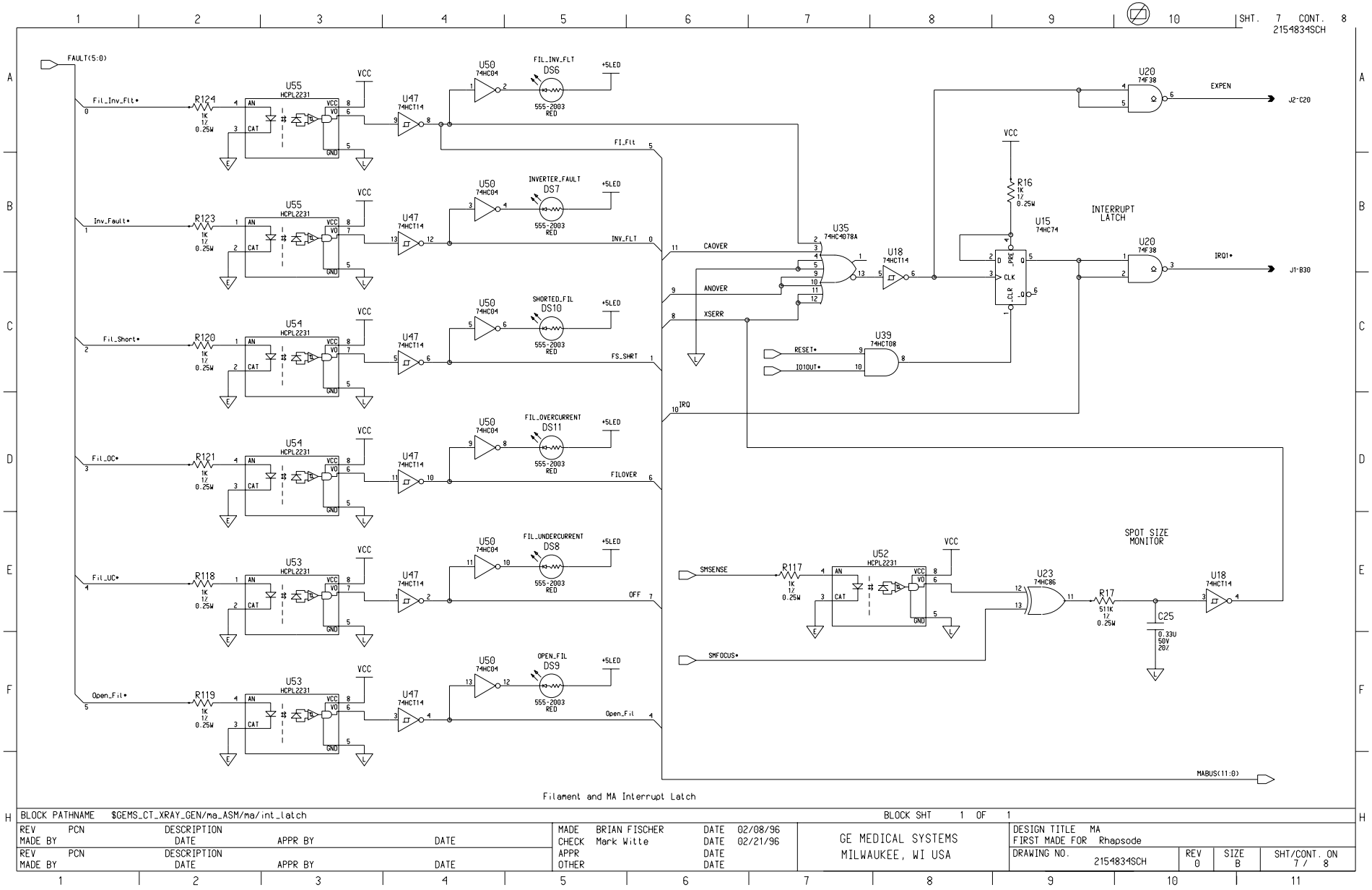


Figure 3-107 2154834 Sheet 7 Rev. 0

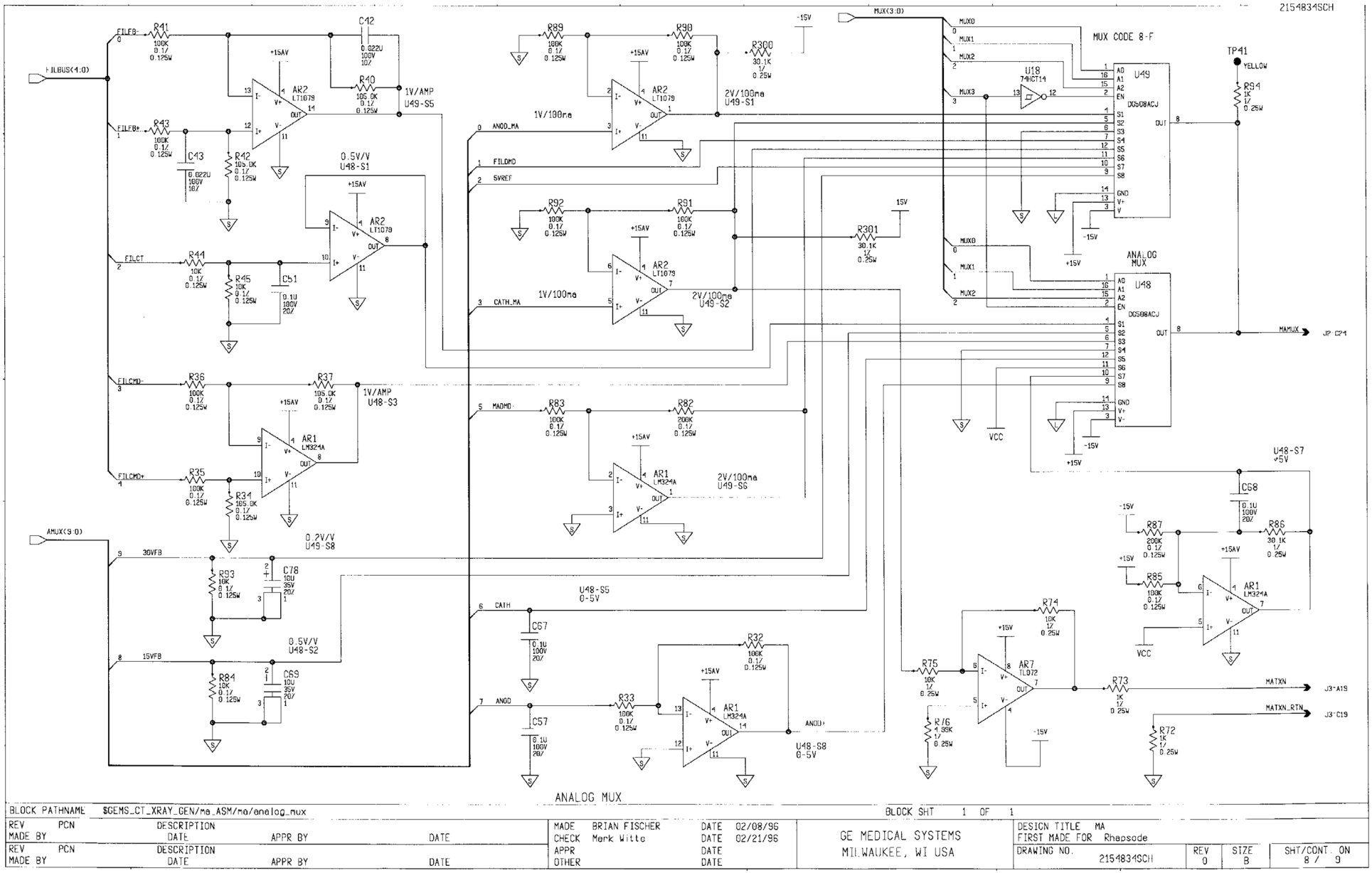


Figure 3-108 2154834 Sheet 8 Rev. 0

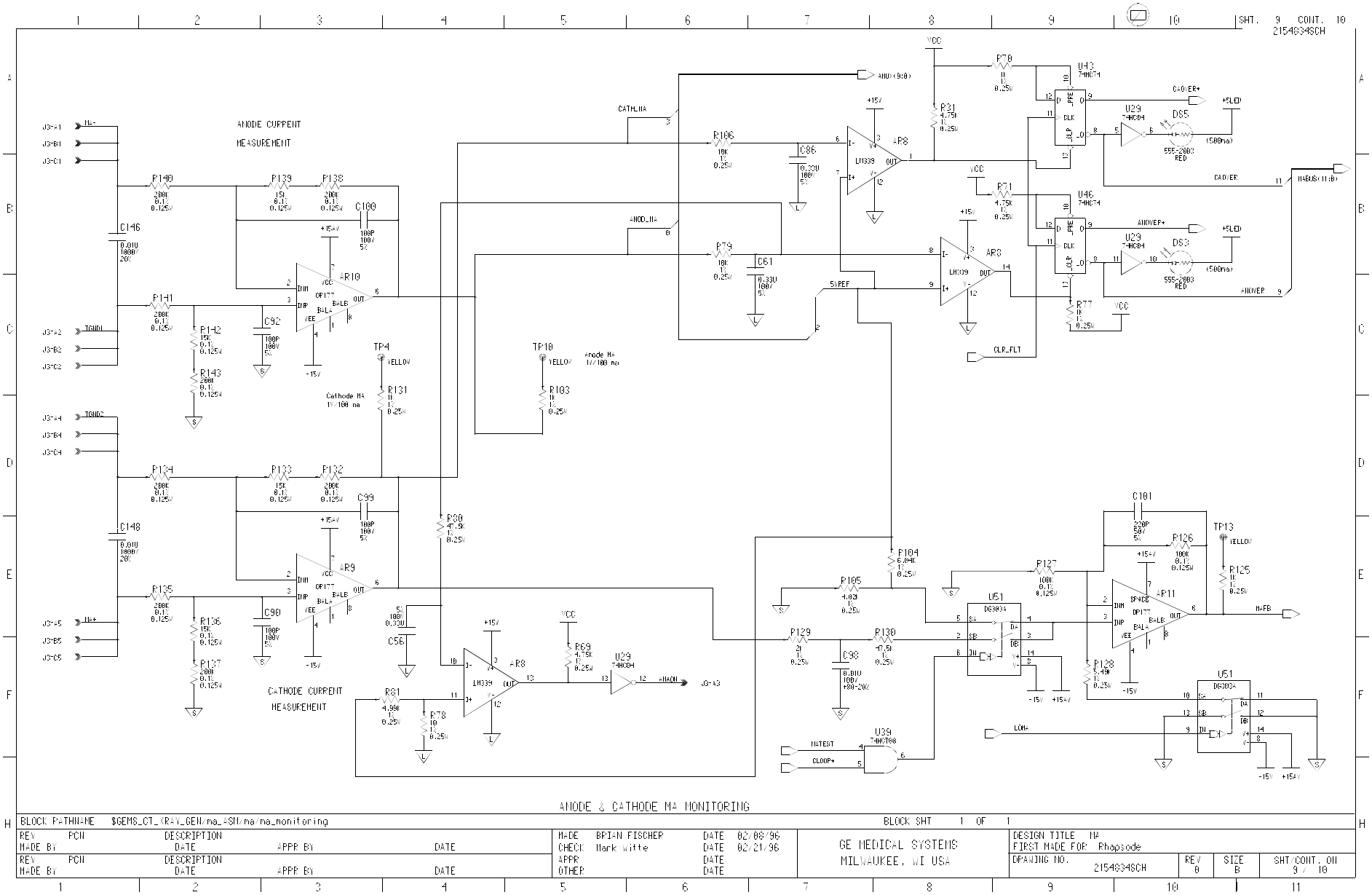


Figure 3-109 2154834 Sheet 9 Rev. 0

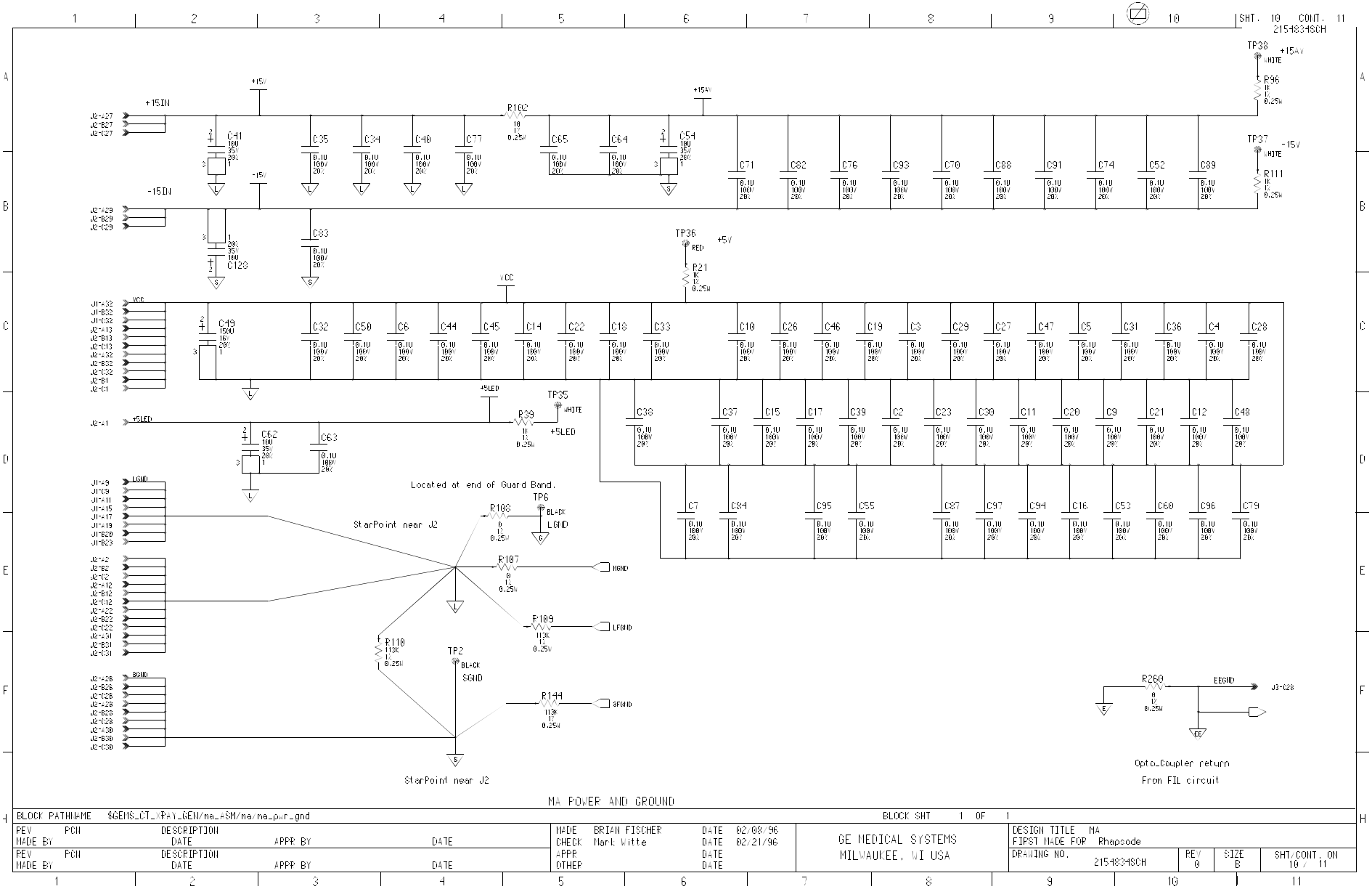


Figure 3-110 2154834 Sheet 10 Rev. 0

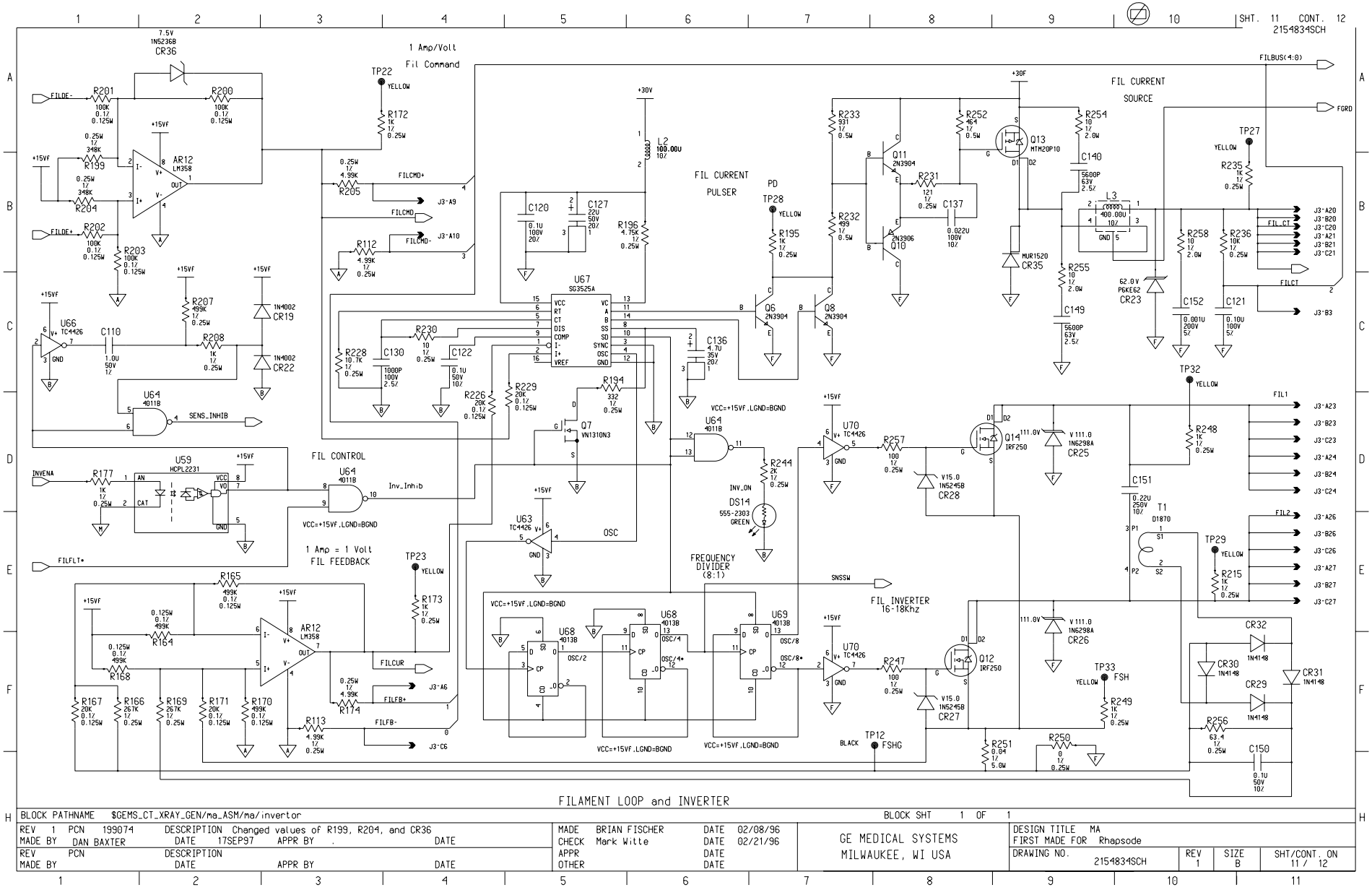


Figure 3-111 2154834 Sheet 11 Rev. 1

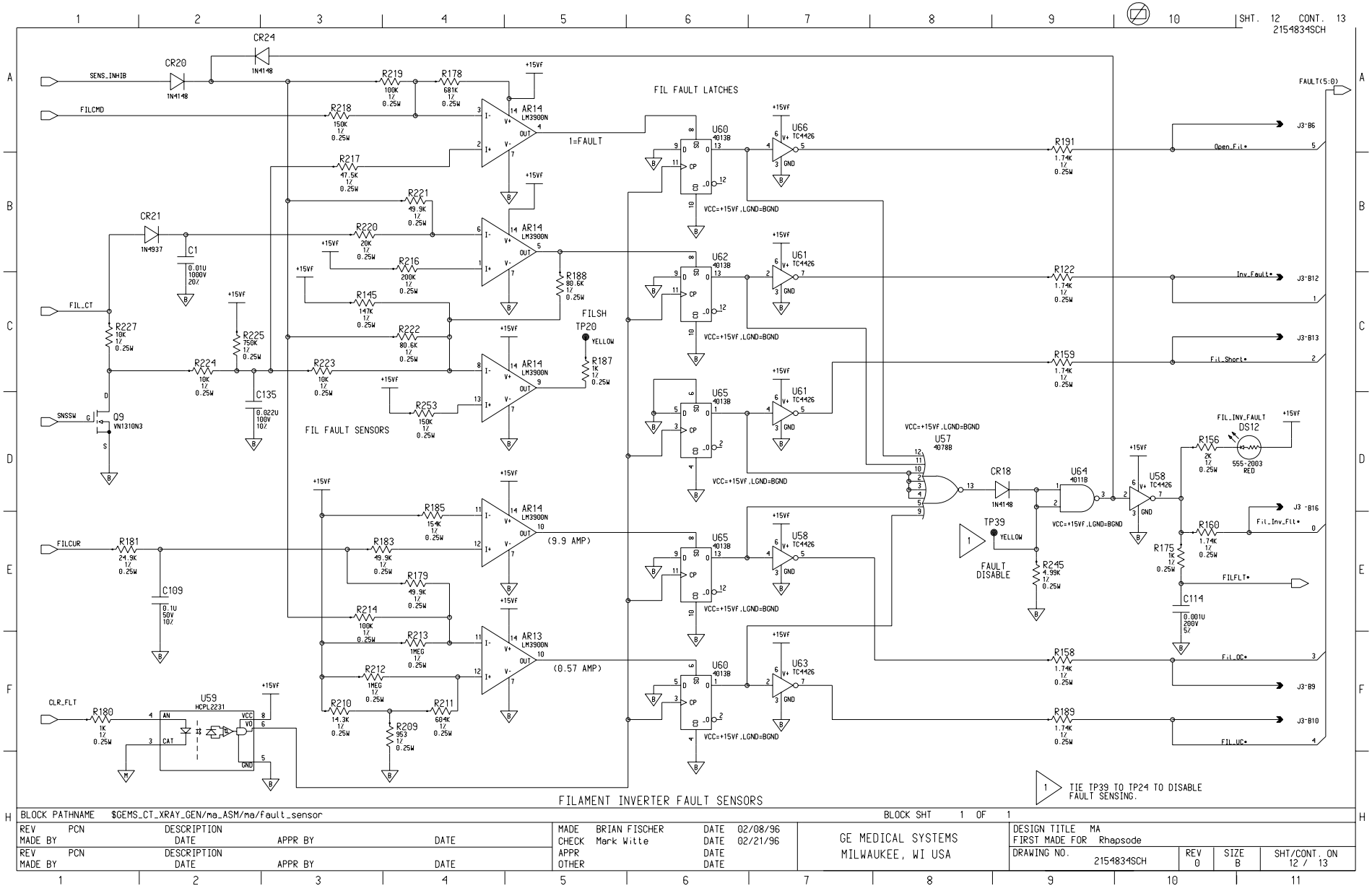


Figure 3-112 2154834 Sheet 12 Rev. 0

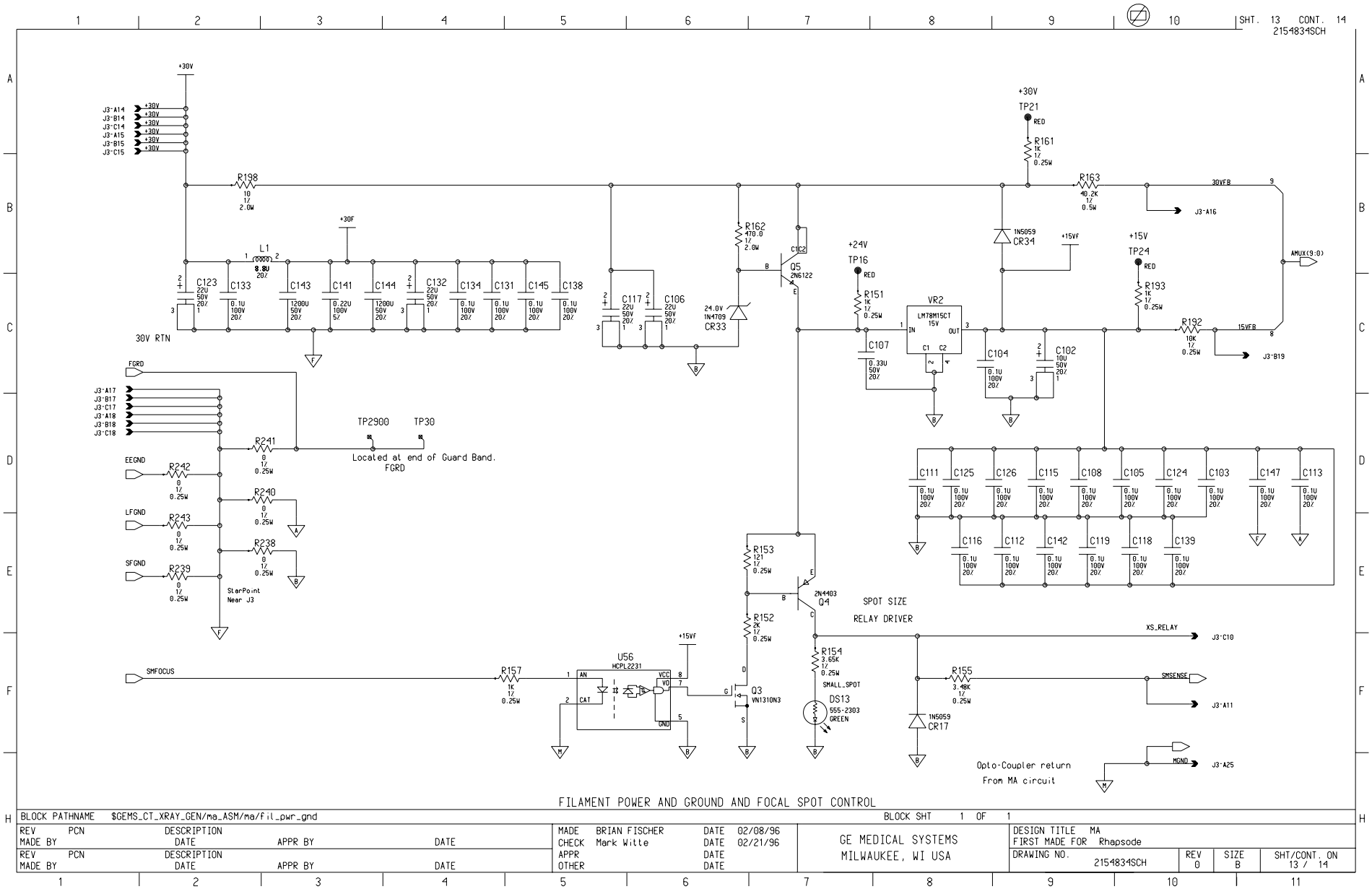


Figure 3-113 2154834 Sheet 13 Rev. 0

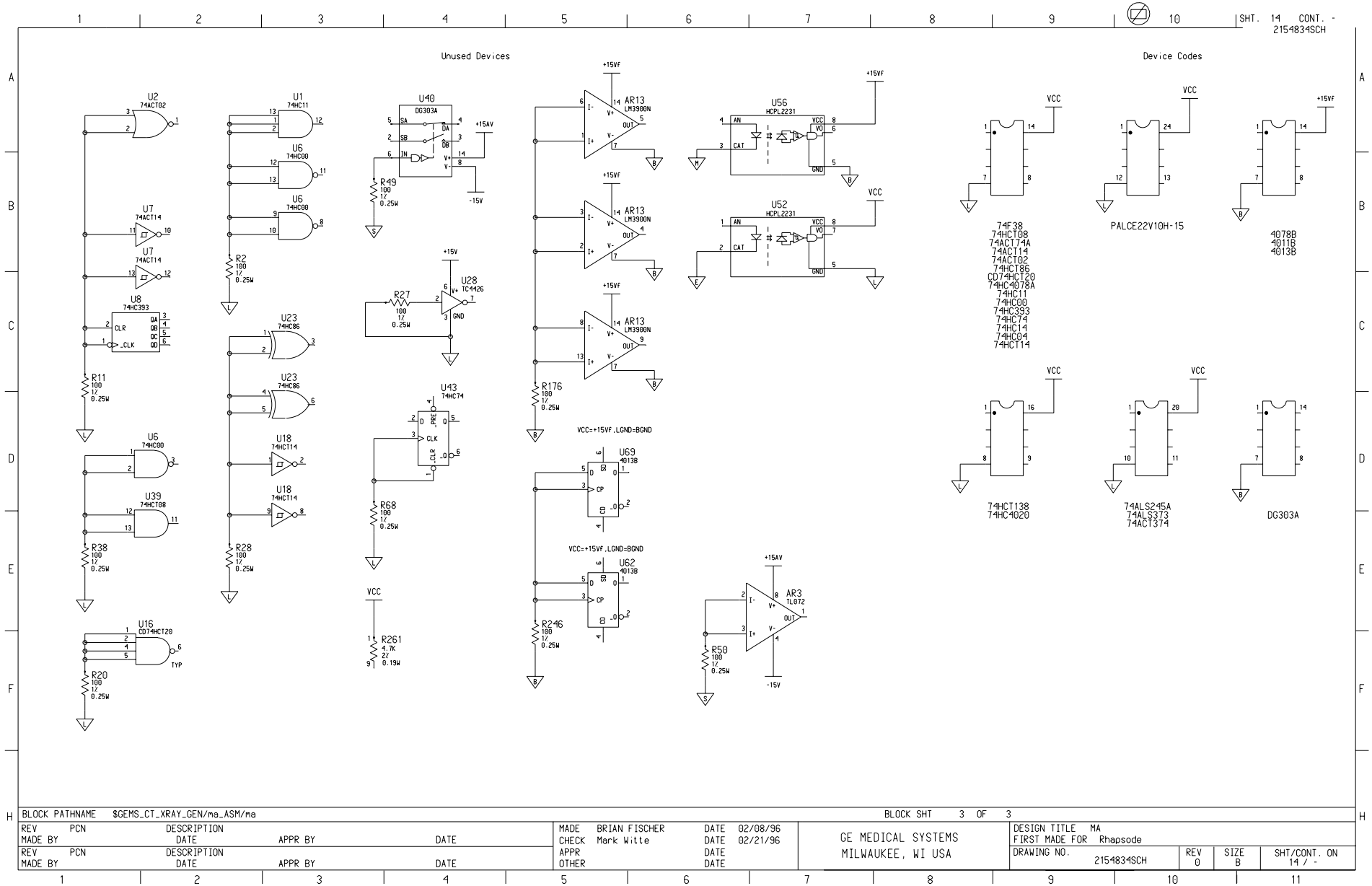


Figure 3-114 2154834 Sheet 14 Rev. 0

4.5 kV Control Board - 2143147

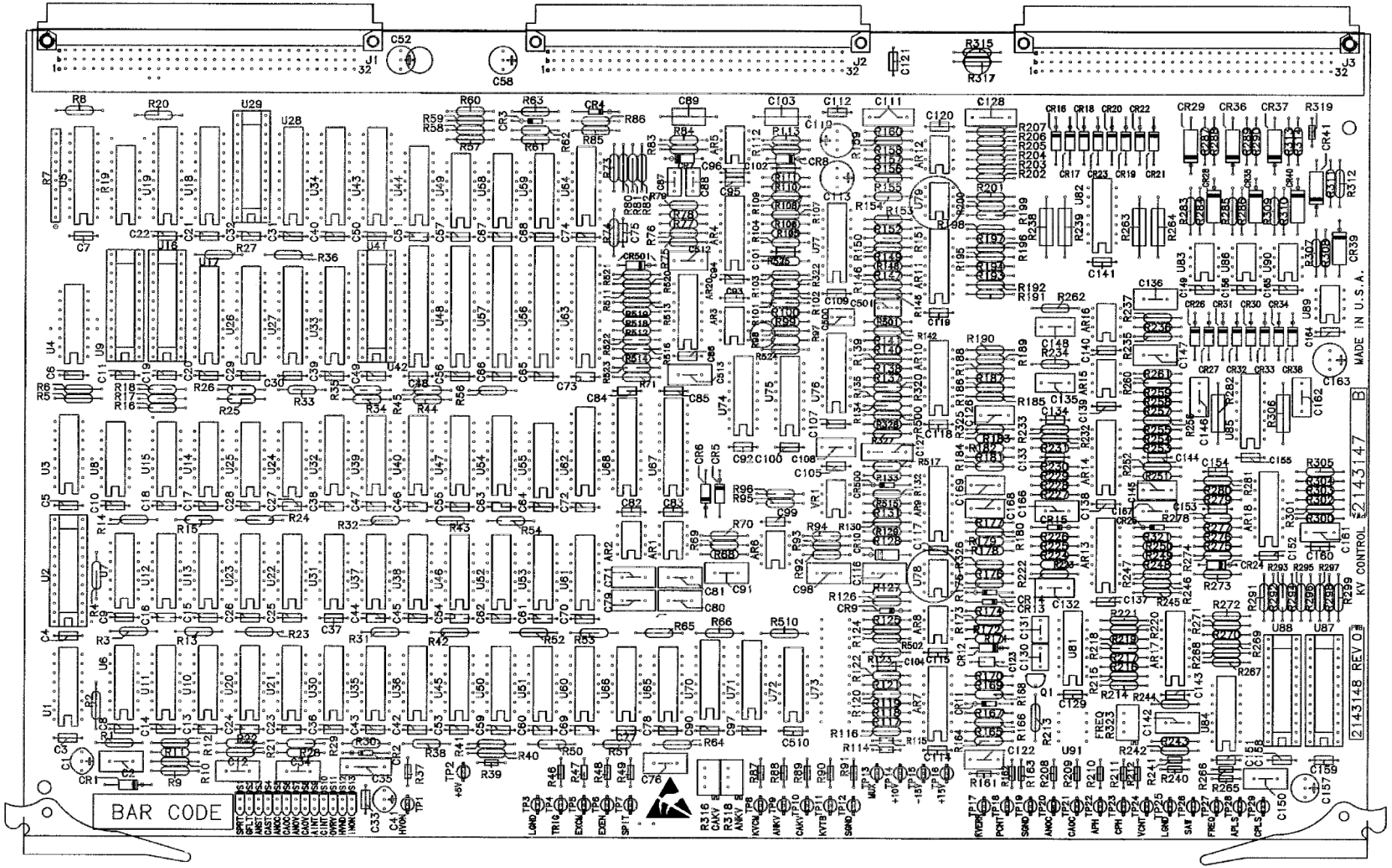


Figure 3-115 kV Control Board Layout, Rev 1

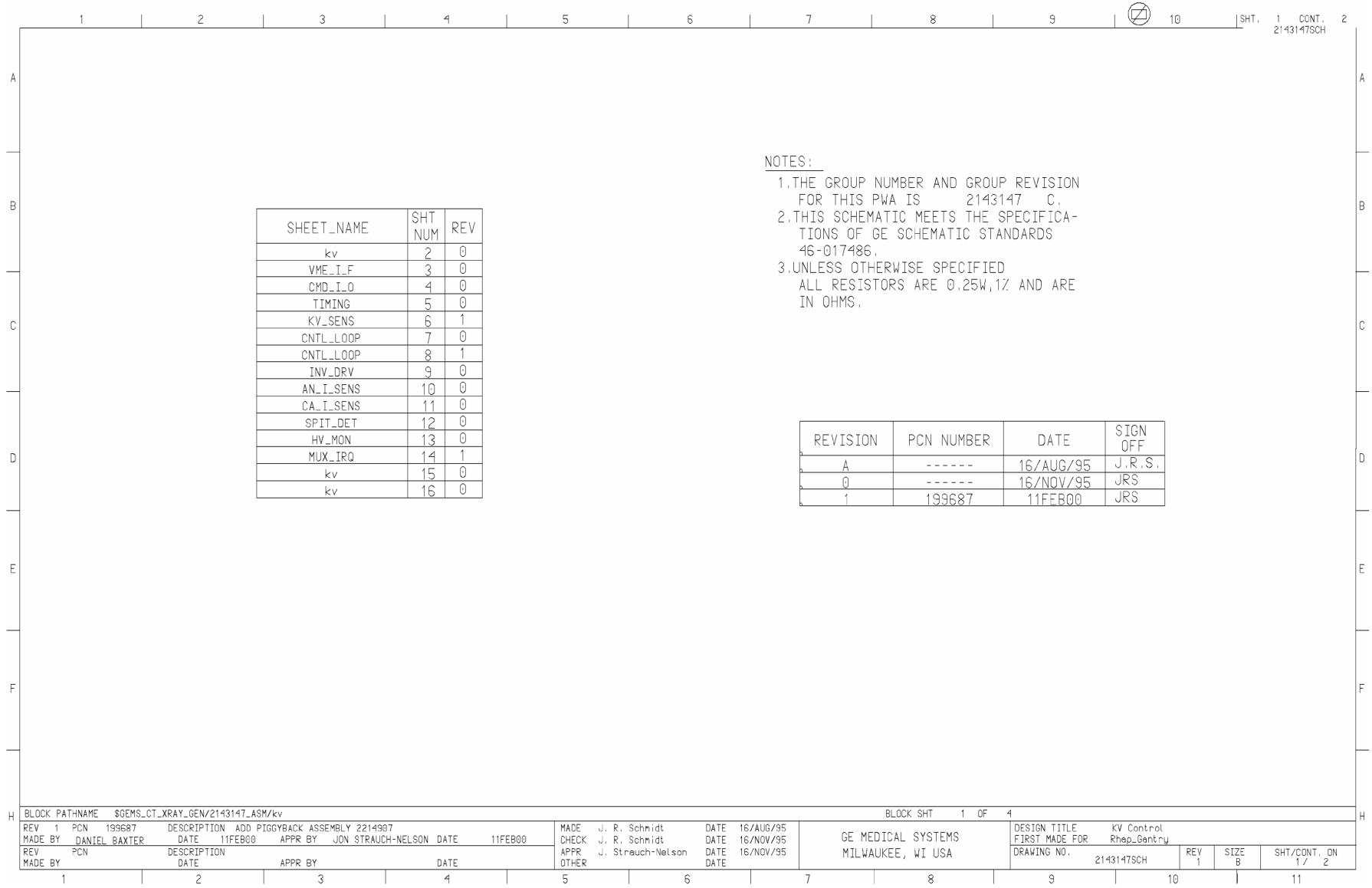


Figure 3-116 2143147, Sheet 1, Rev. 1

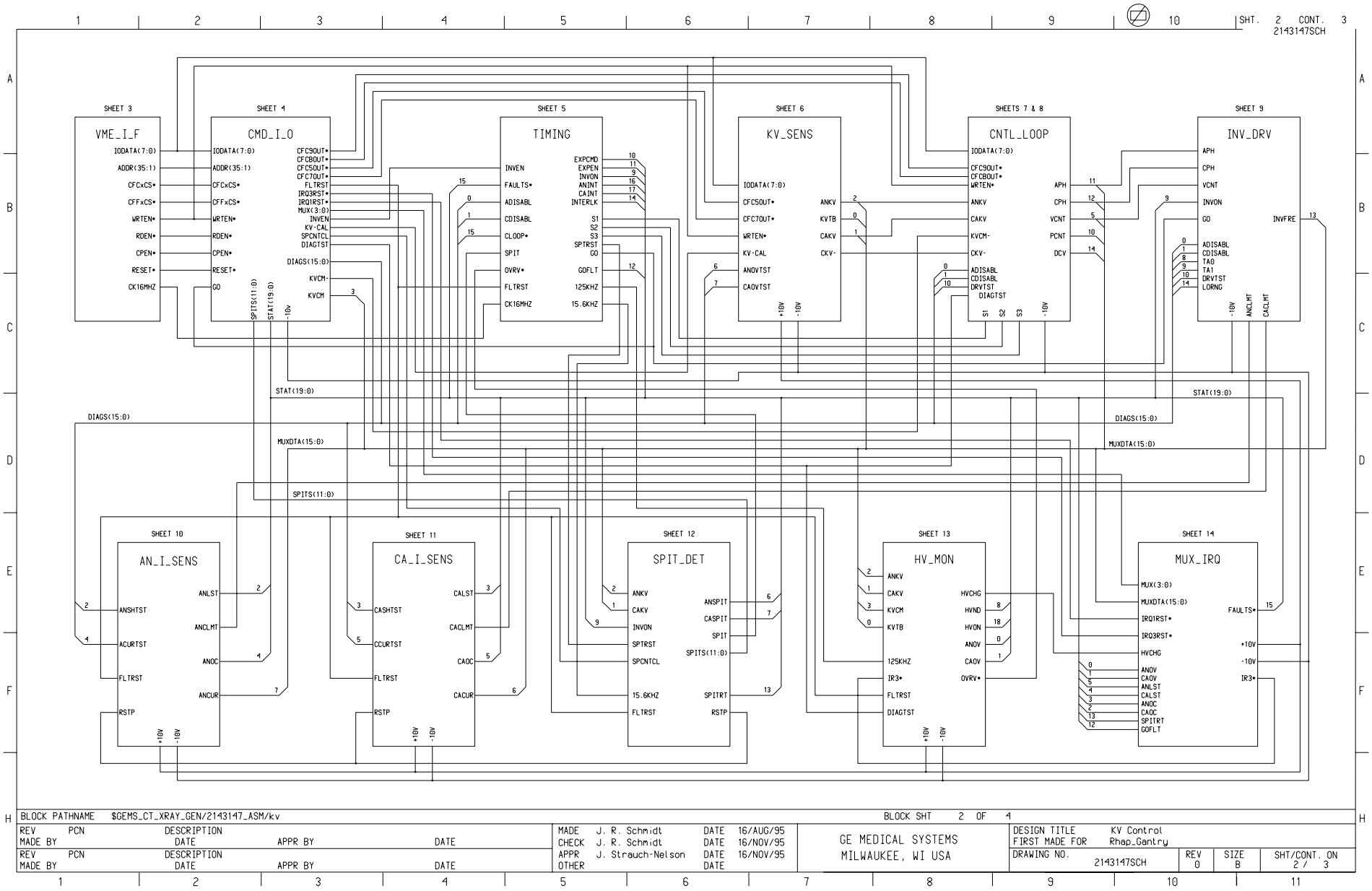


Figure 3-117 2143147, Sheet 2, Rev. 0

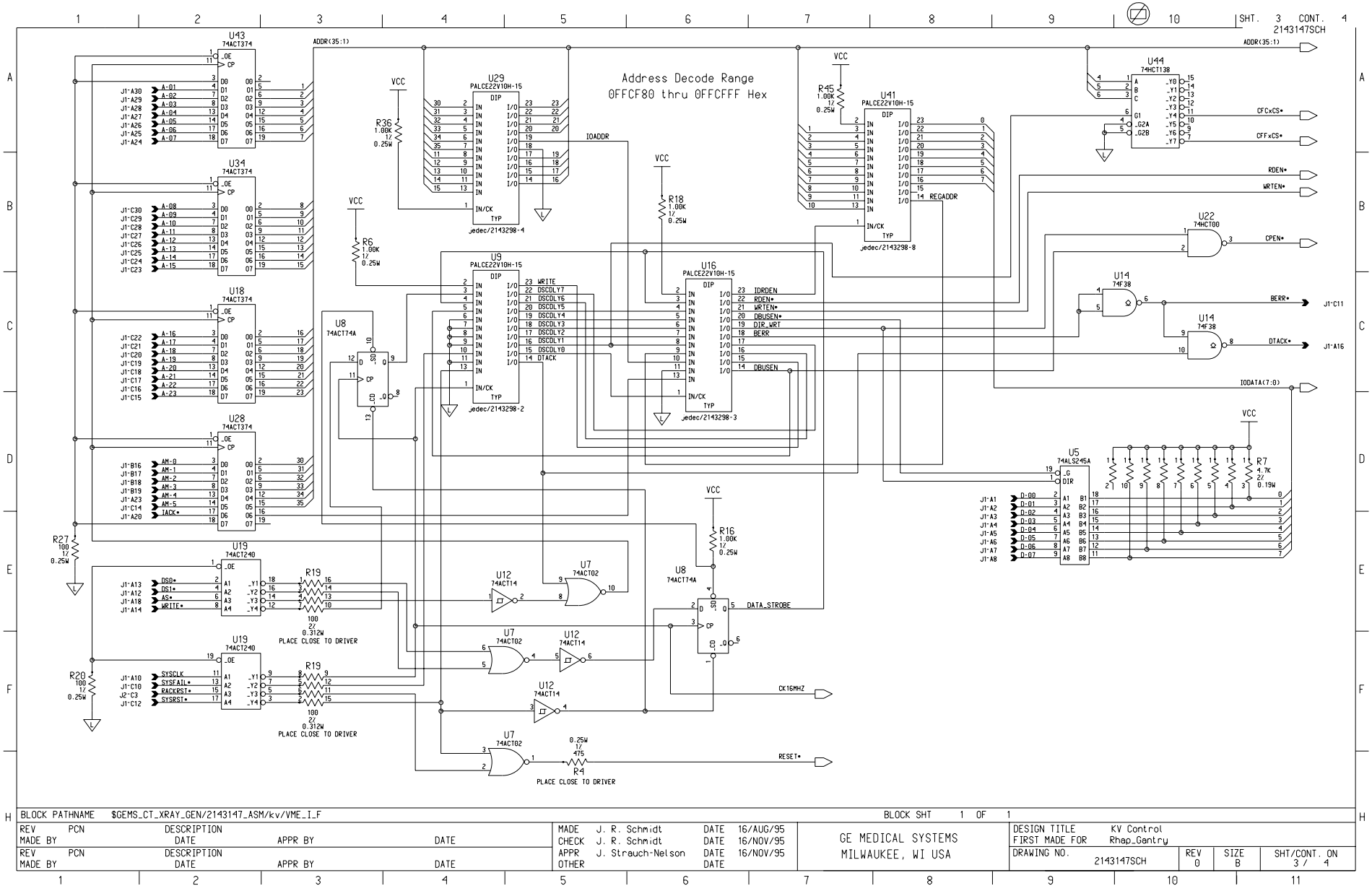


Figure 3-118 2143147, Sheet 3, Rev. 0

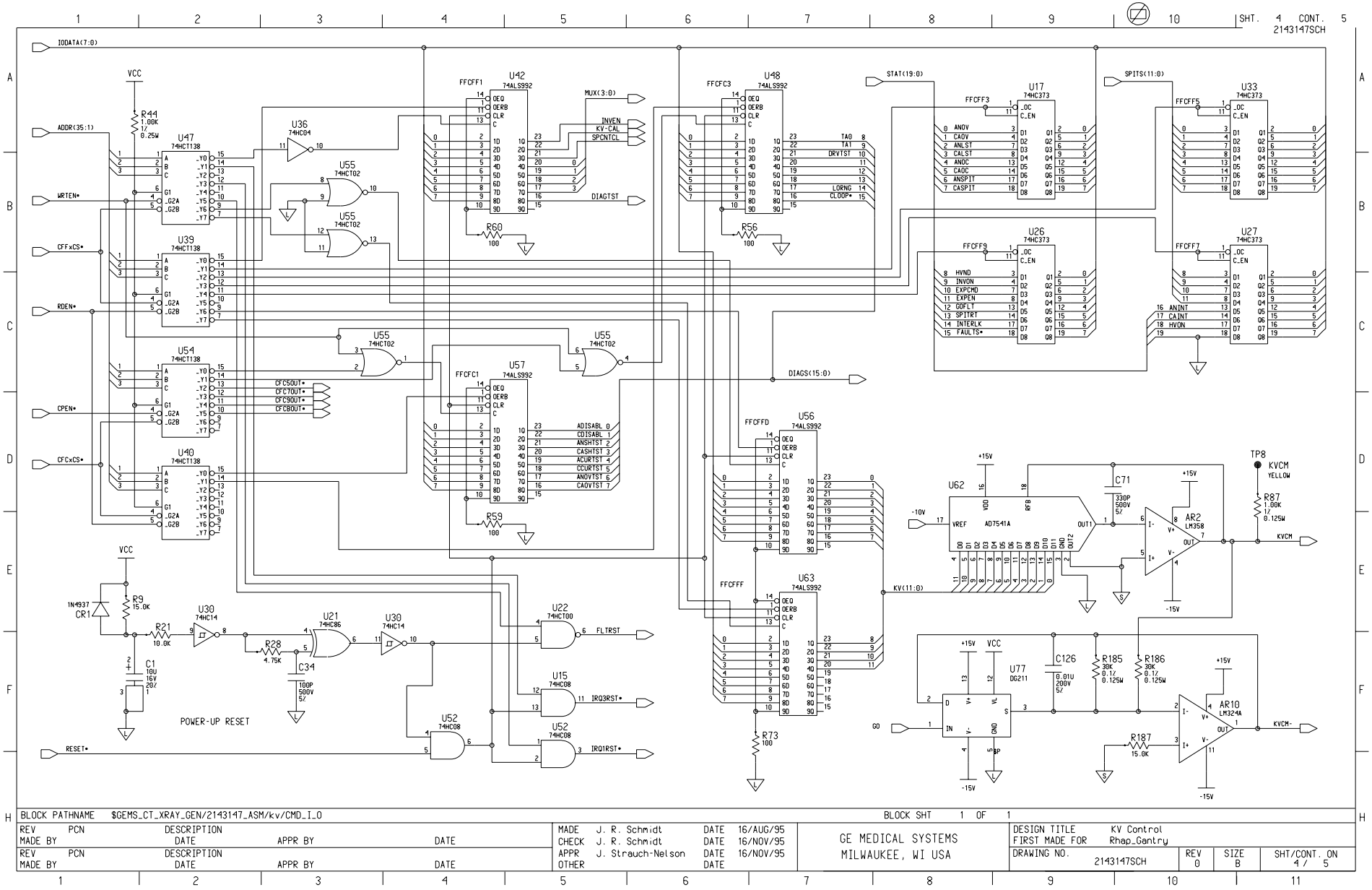


Figure 3-119 2143147, Sheet 4, Rev. 0

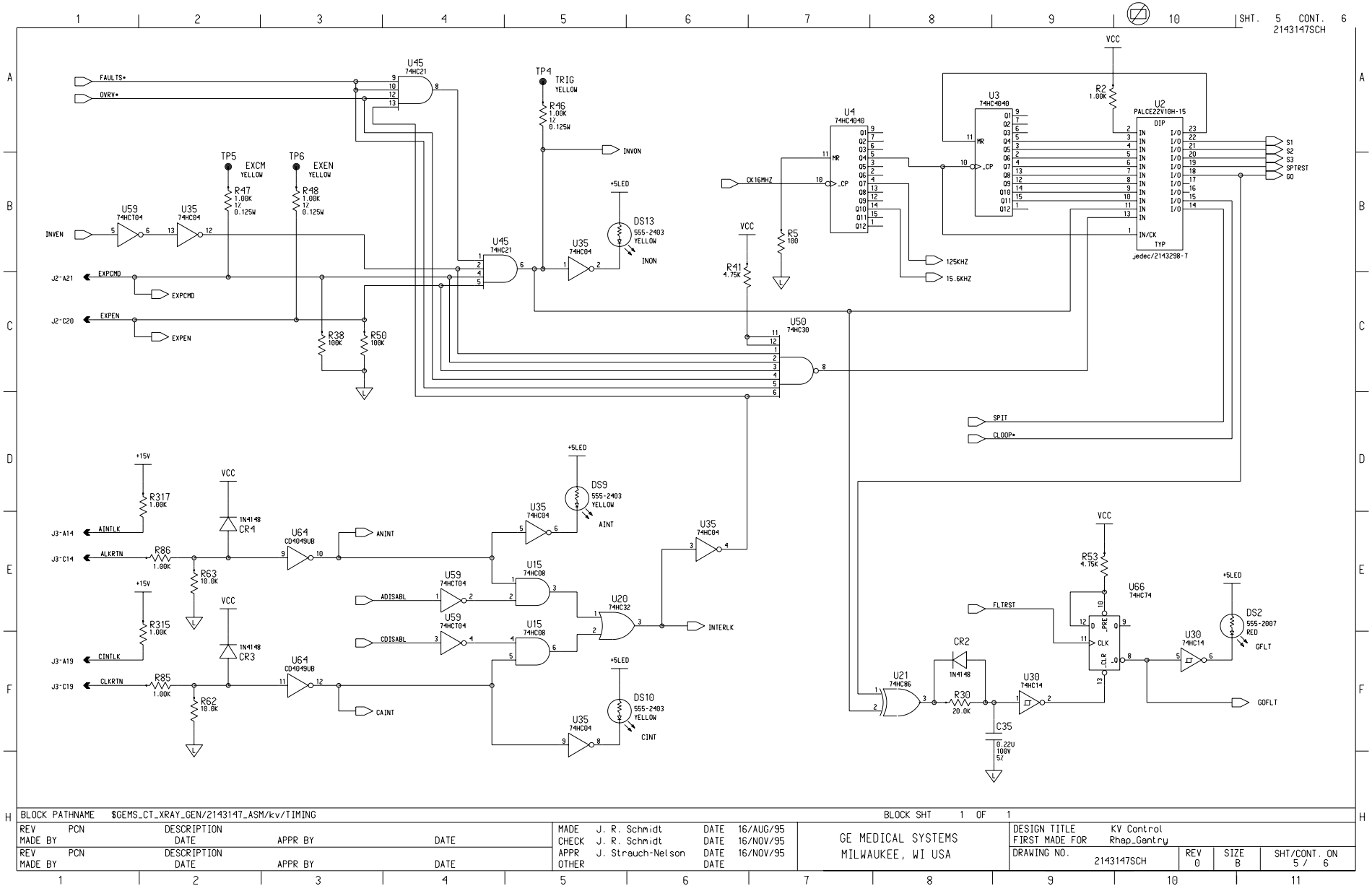


Figure 3-120 2143147 Sheet 5 Rev. 0

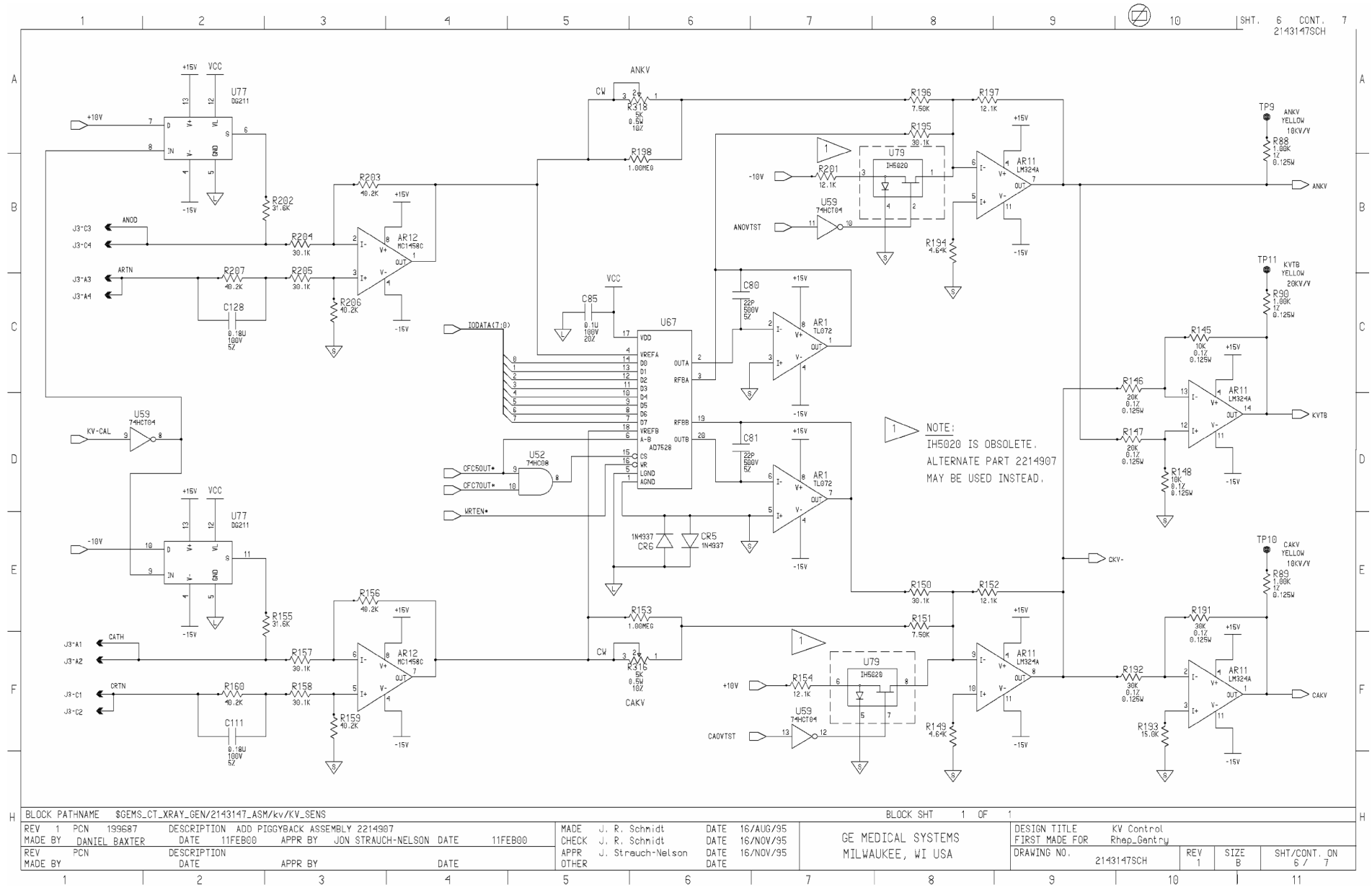


Figure 3-121 2143147, Sheet 6, Rev. 1

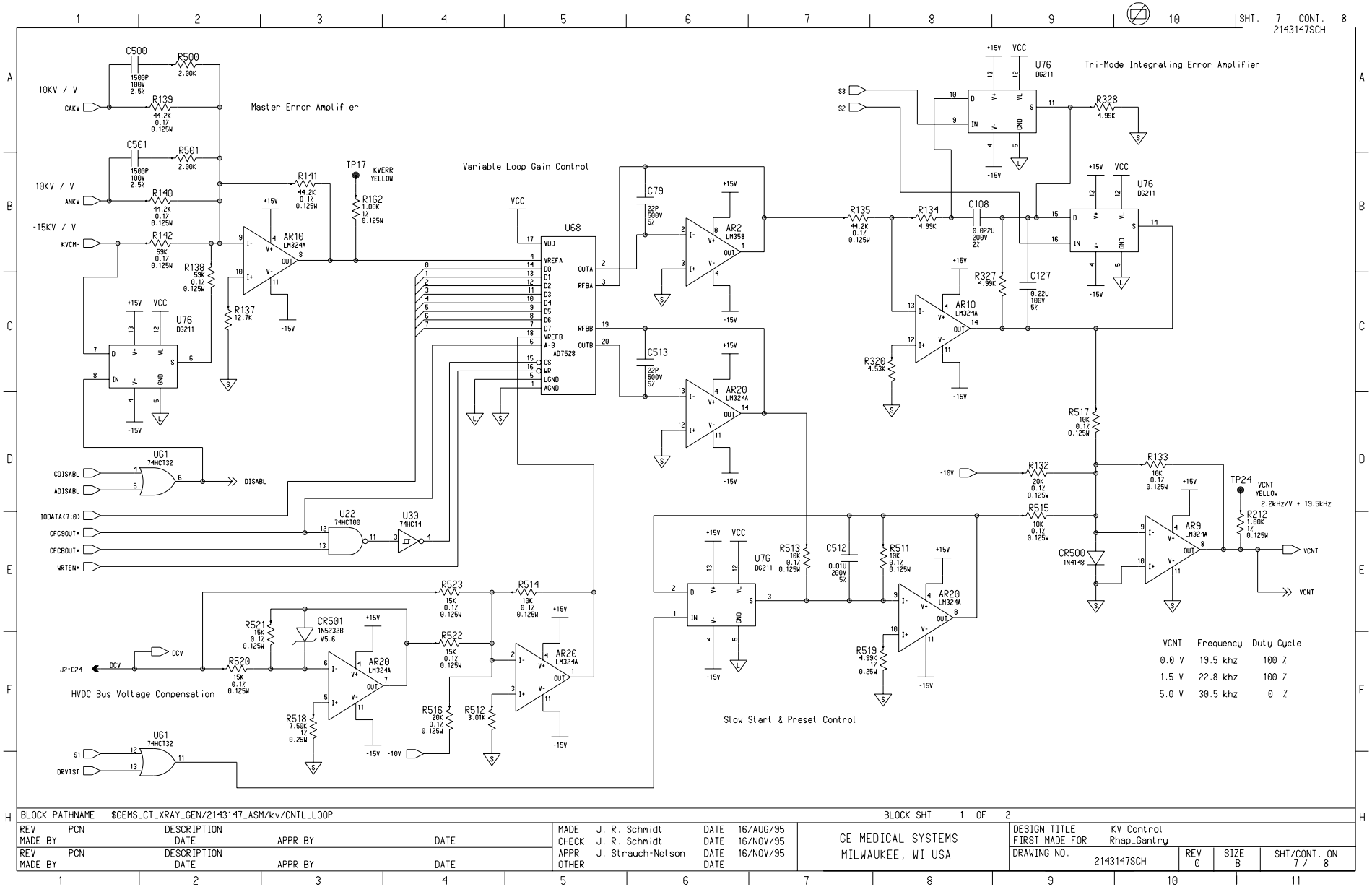


Figure 3-122 2143147 Sheet 7 Rev. 0

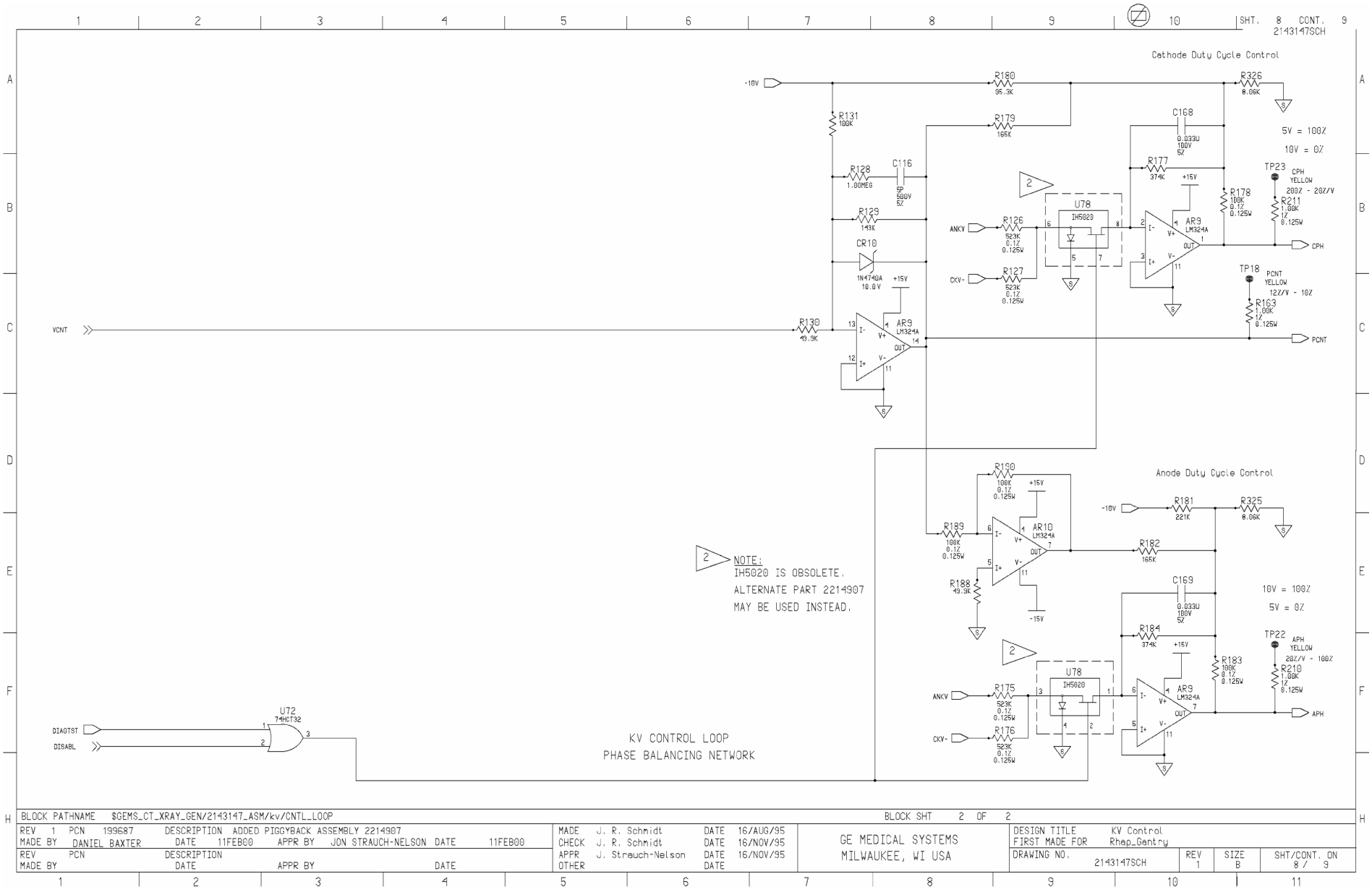


Figure 3-123 2143147, Sheet 8, Rev. 1

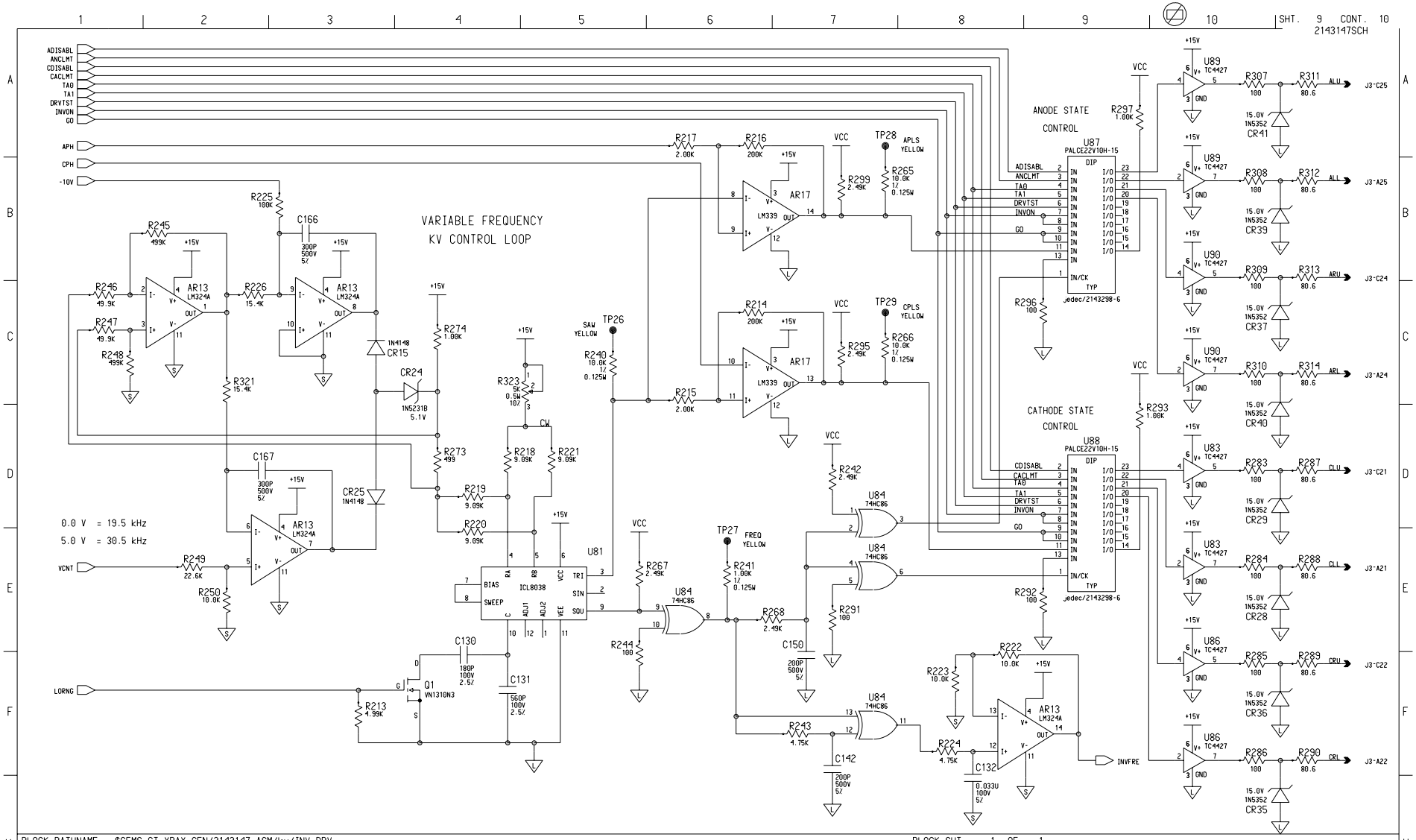


Figure 3-124 2143147 Sheet 9 Rev. 0

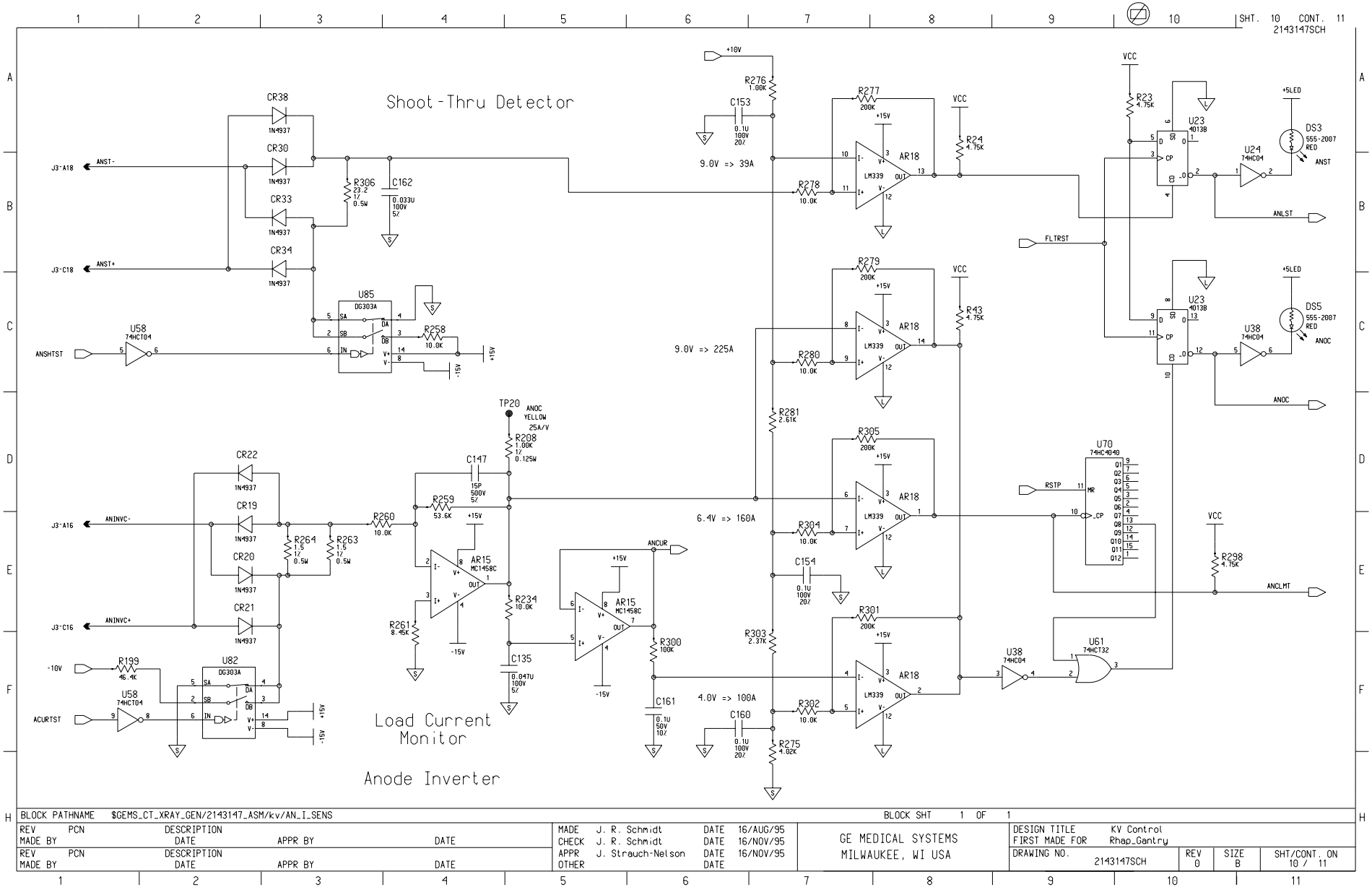


Figure 3-125 2143147 Sheet 10 Rev. 0

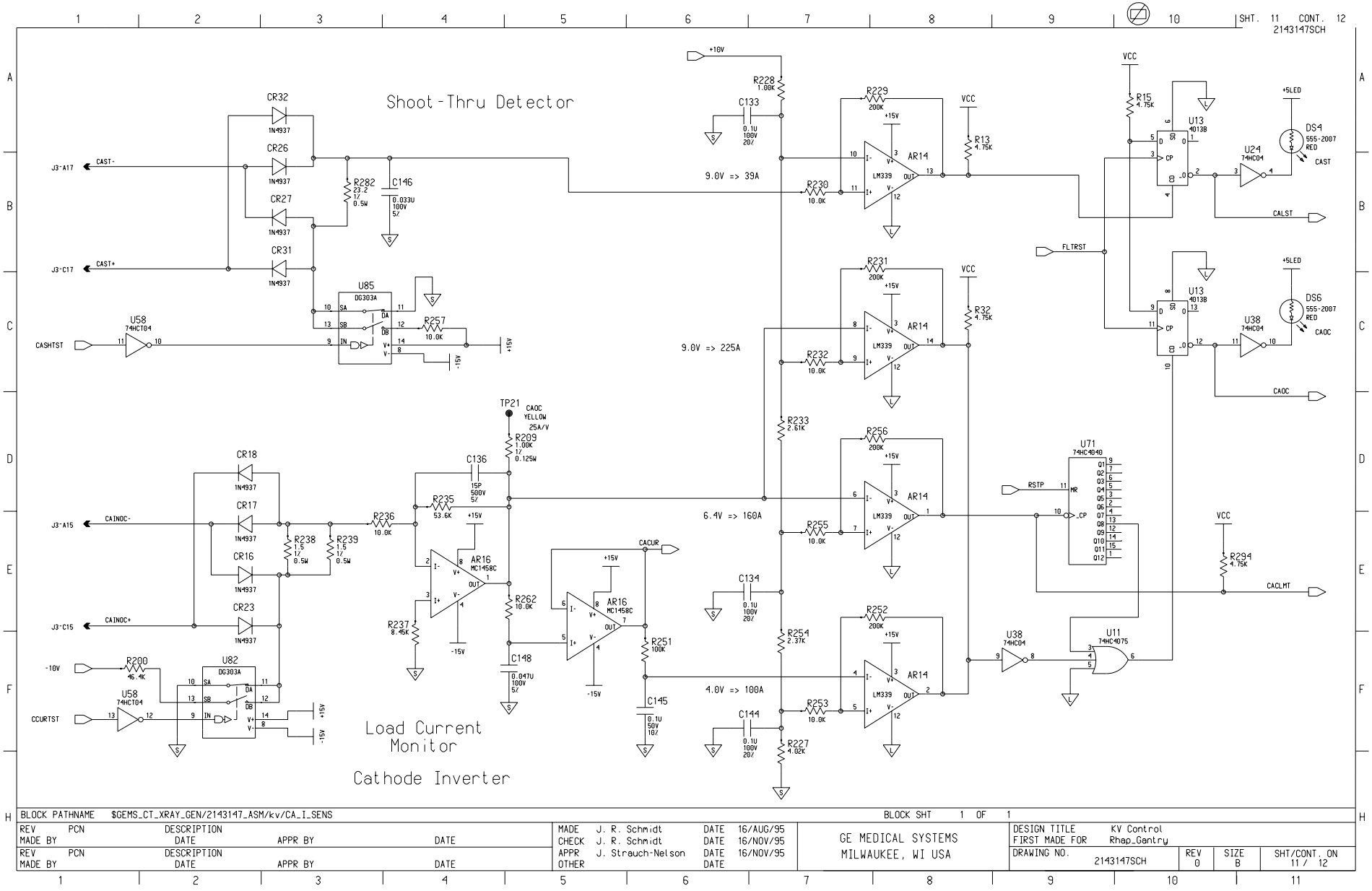


Figure 3-126 2143147 Sheet 11 Rev. 0

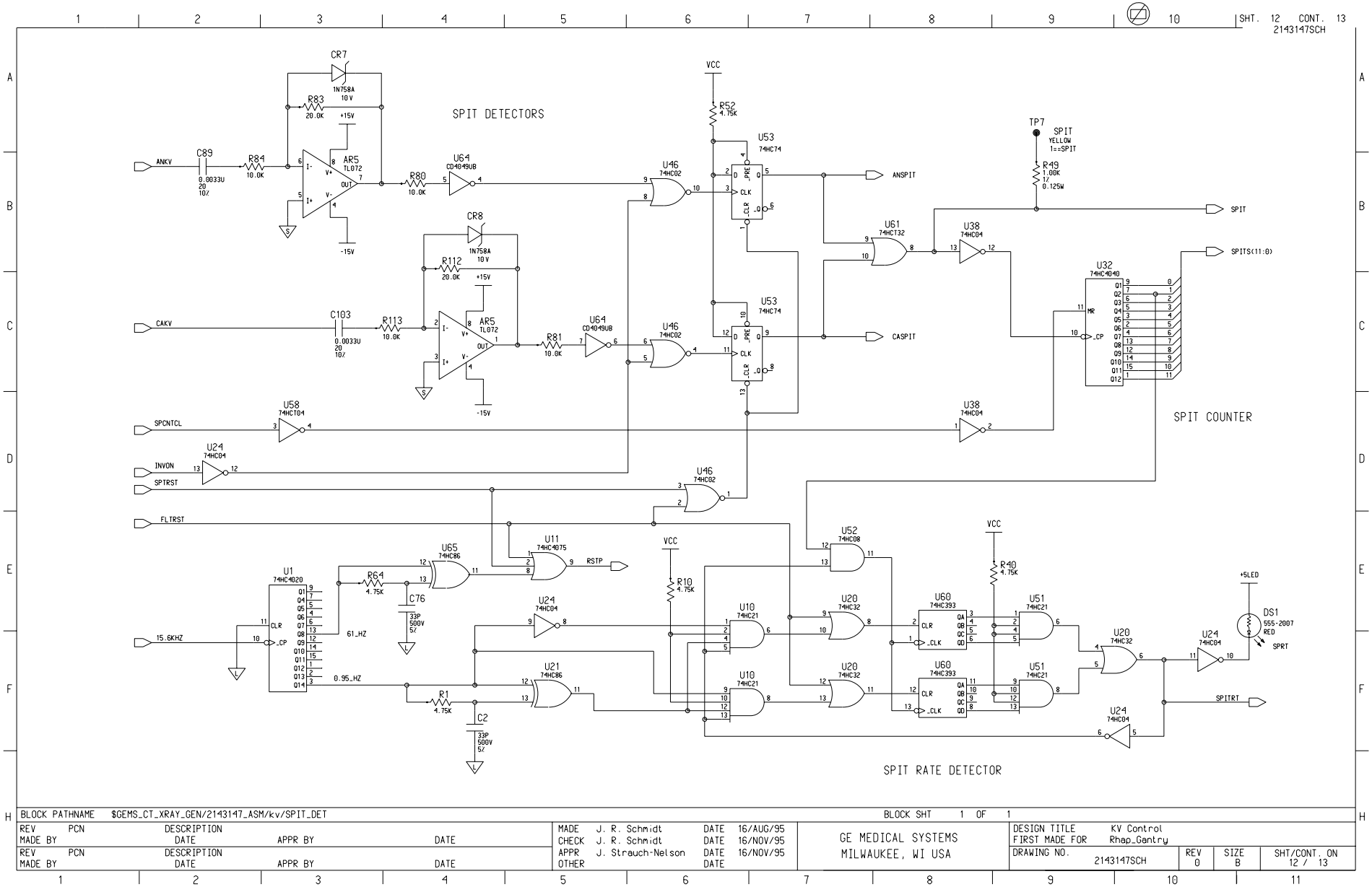


Figure 3-127 2143147 Sheet 12 Rev. 0

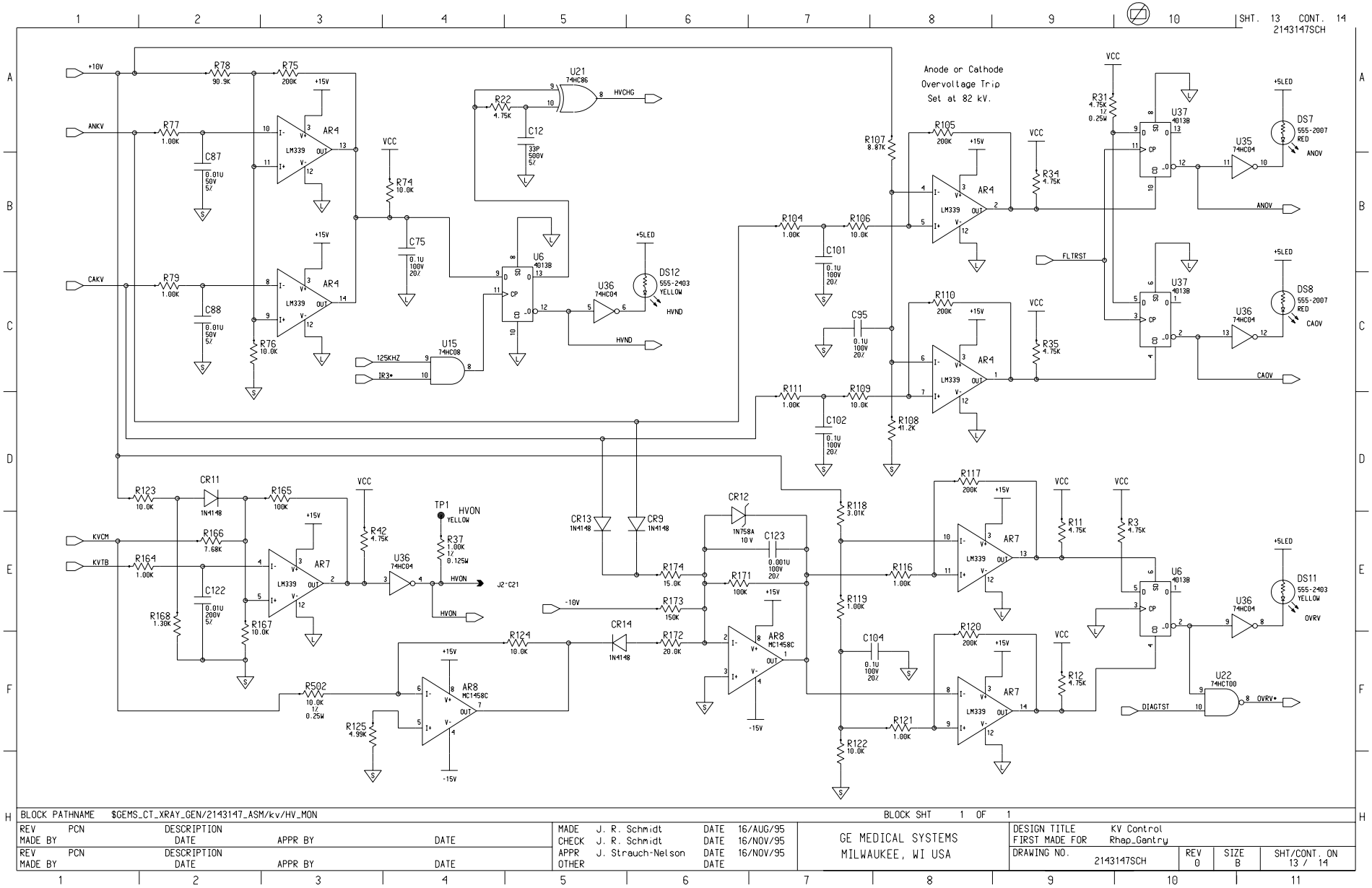


Figure 3-128 2143147 Sheet 13, Rev 0

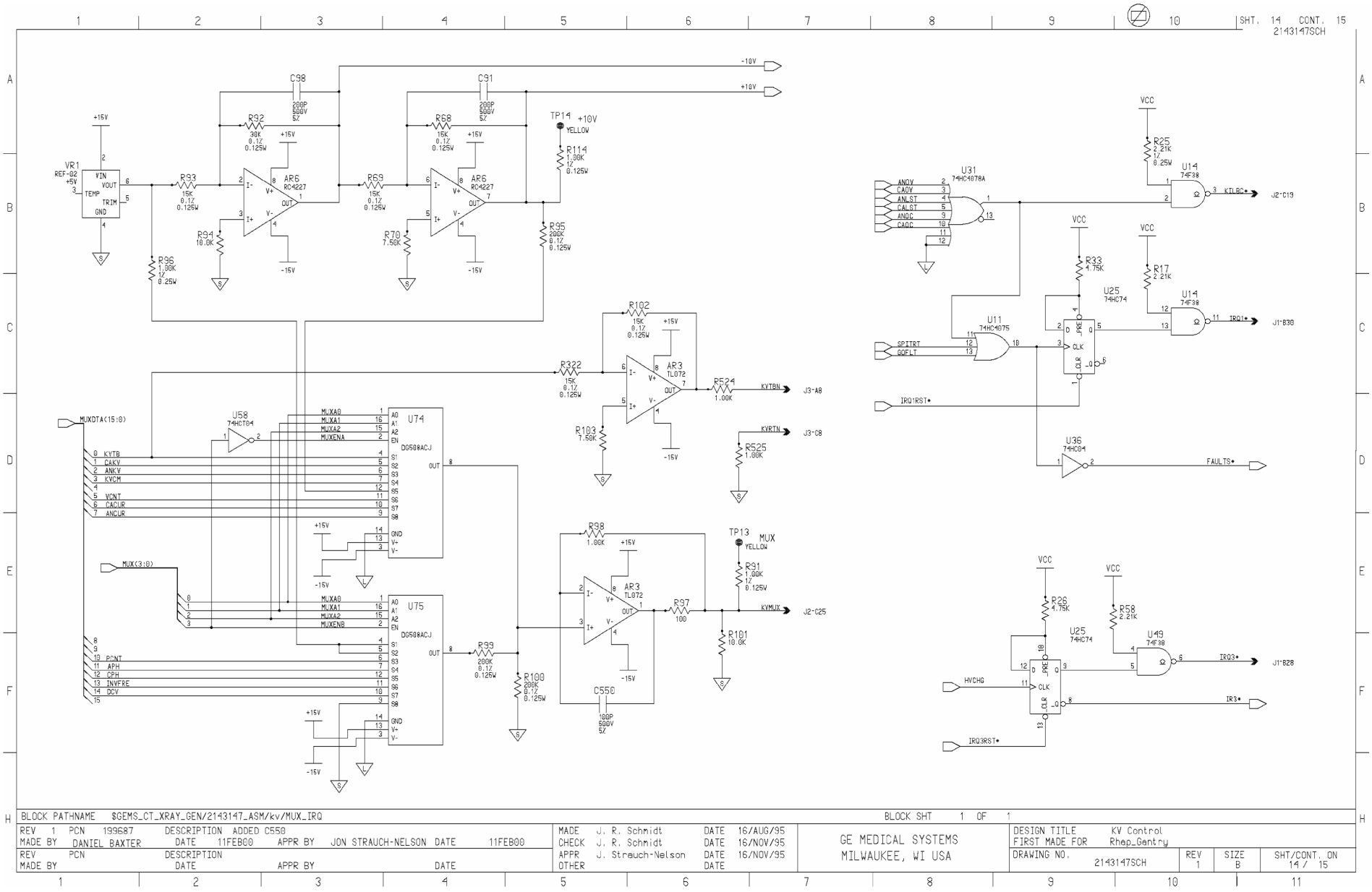


Figure 3-129 2143147, Sheet 14, Rev. 1

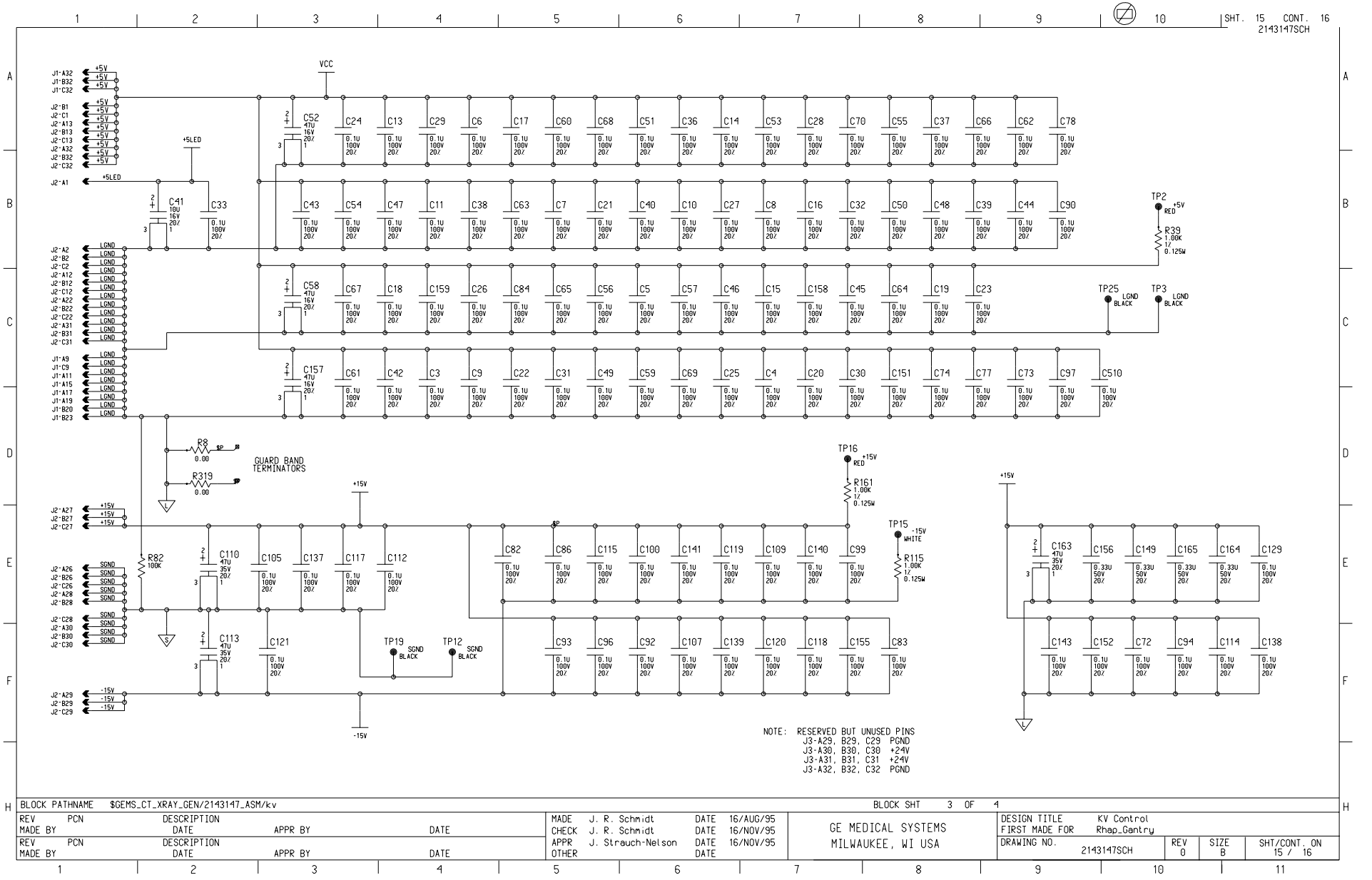


Figure 3-130 2143147 Sheet 15, Rev 0

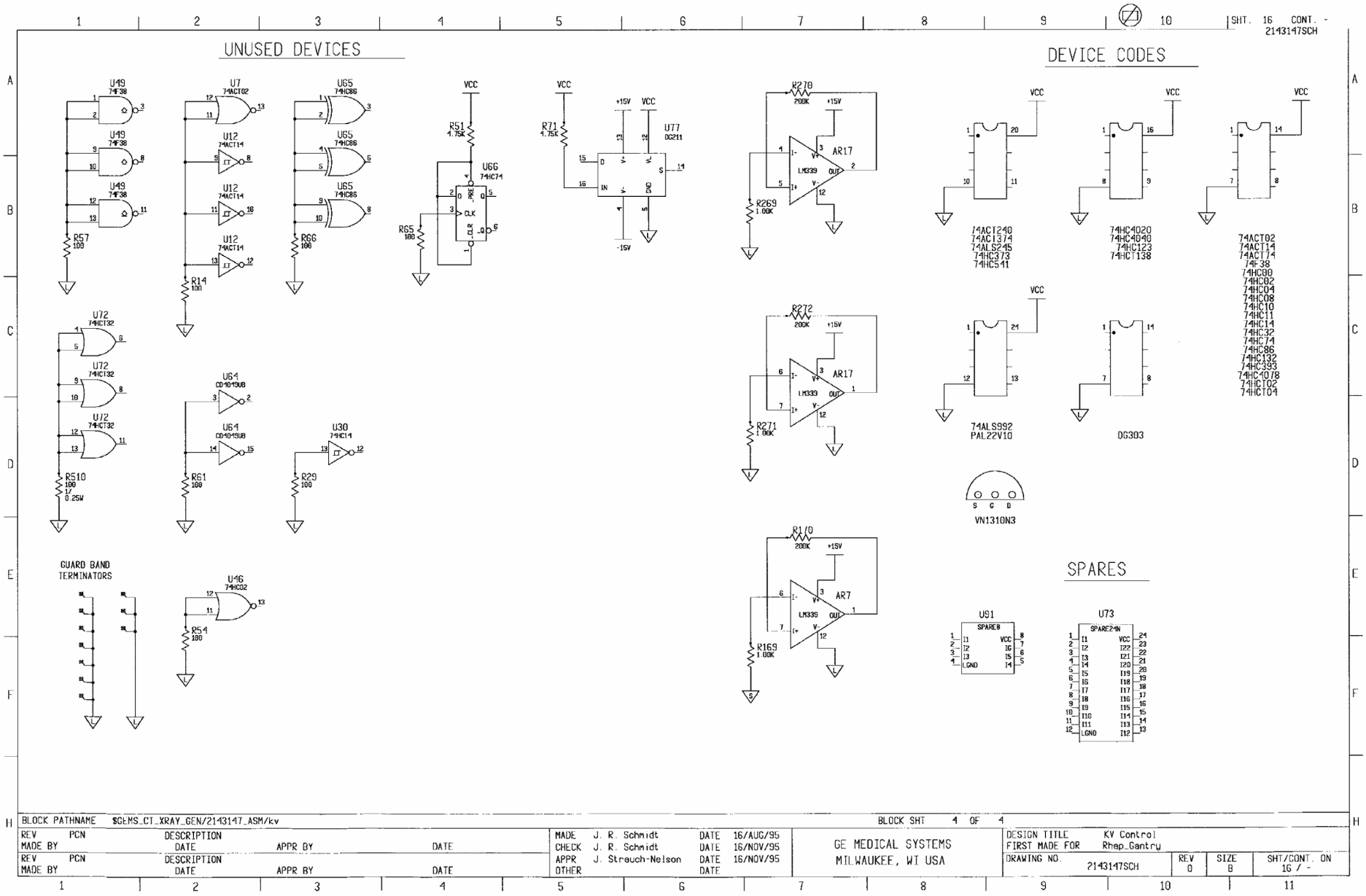


Figure 3-131 2143147 Sheet 16, Rev 0

4.6 OBC Backplane - 2217038

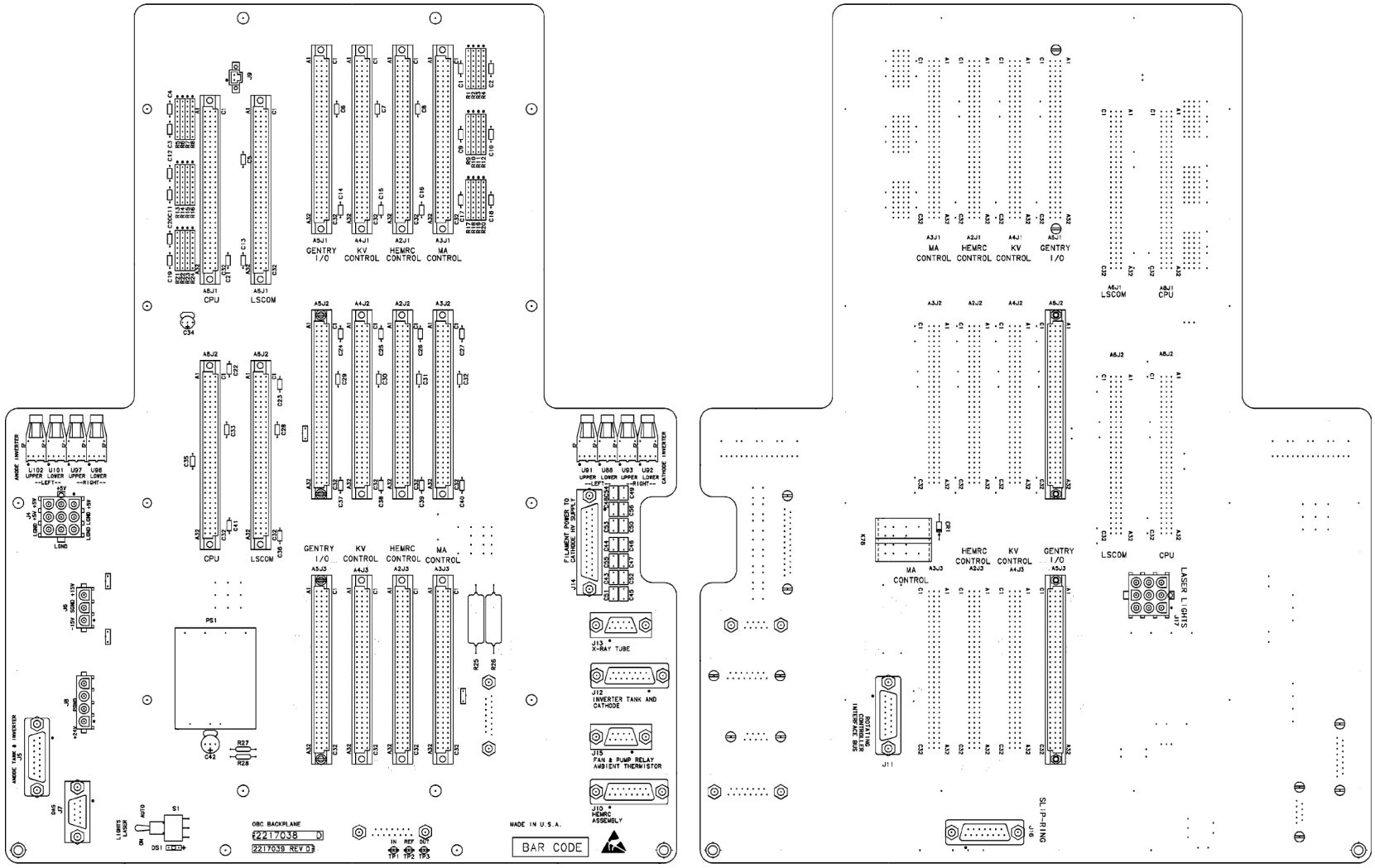
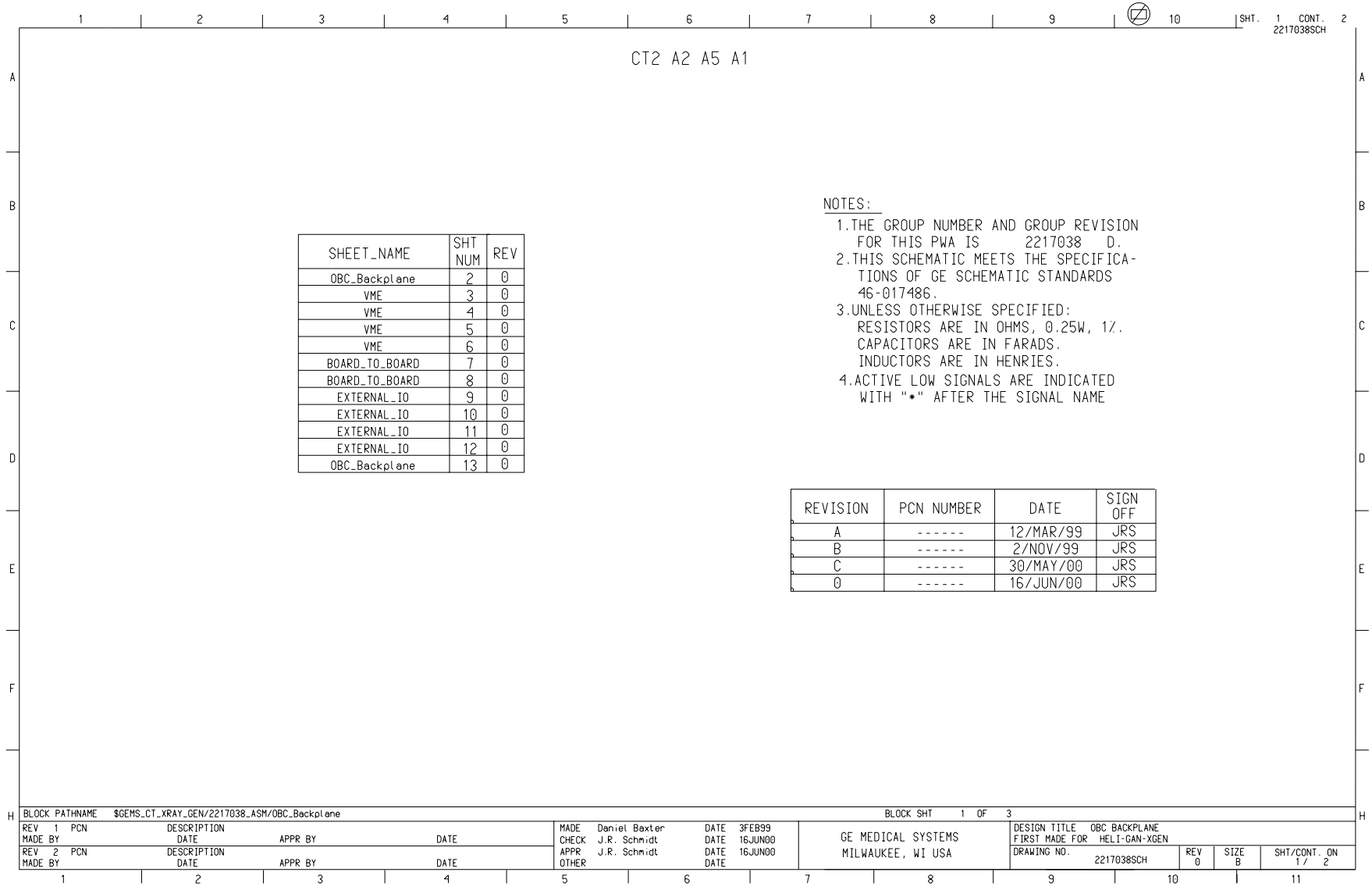


Figure 3-132 OBC Backplane Layout (front and back), Rev 0



SHEET_NAME	SHT NUM	REV
OBC_Backplane	2	0
VME	3	0
VME	4	0
VME	5	0
VME	6	0
BOARD_TO_BOARD	7	0
BOARD_TO_BOARD	8	0
EXTERNAL_IO	9	0
EXTERNAL_IO	10	0
EXTERNAL_IO	11	0
EXTERNAL_IO	12	0
OBC_Backplane	13	0

REVISION	PCN NUMBER	DATE	SIGN OFF
A	------	12/MAR/99	JRS
B	------	2/NOV/99	JRS
C	------	30/MAY/00	JRS
0	------	16/JUN/00	JRS

Figure 3-133 2217038, Sheet 1, Rev. 0

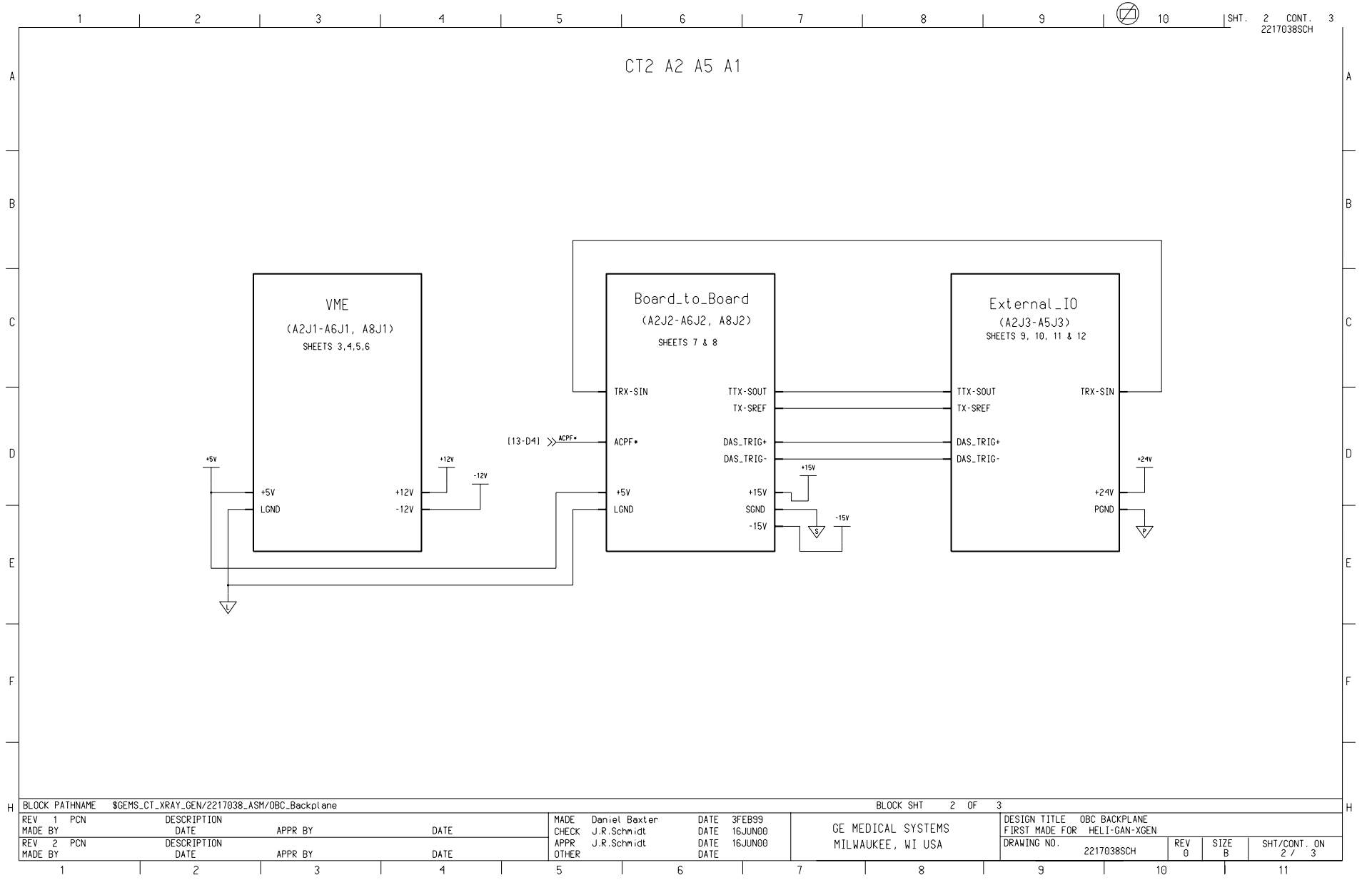


Figure 3-134 2217038, Sheet 2, Rev. 0

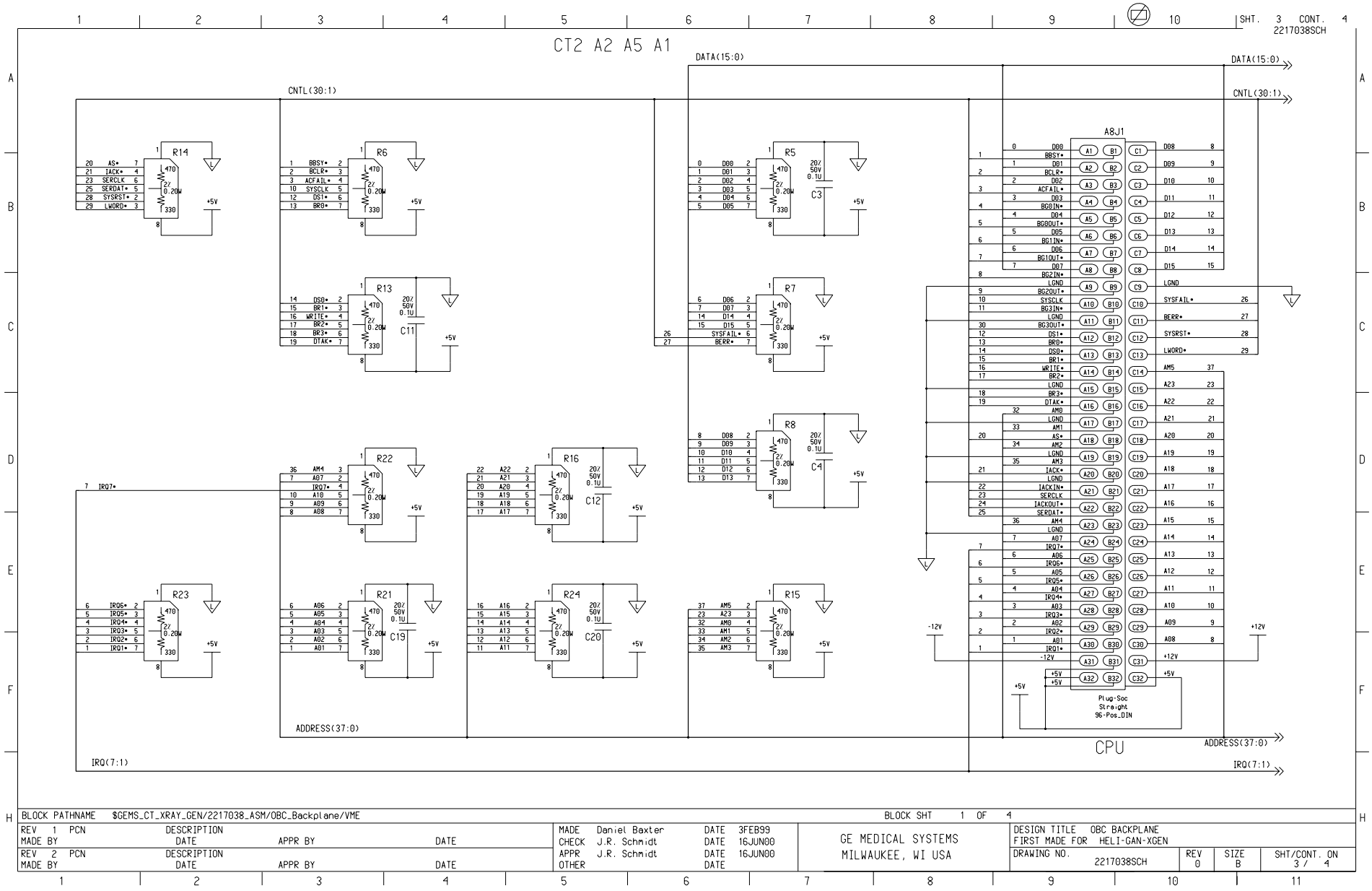


Figure 3-135 2217038, Sheet 3, Rev. 0

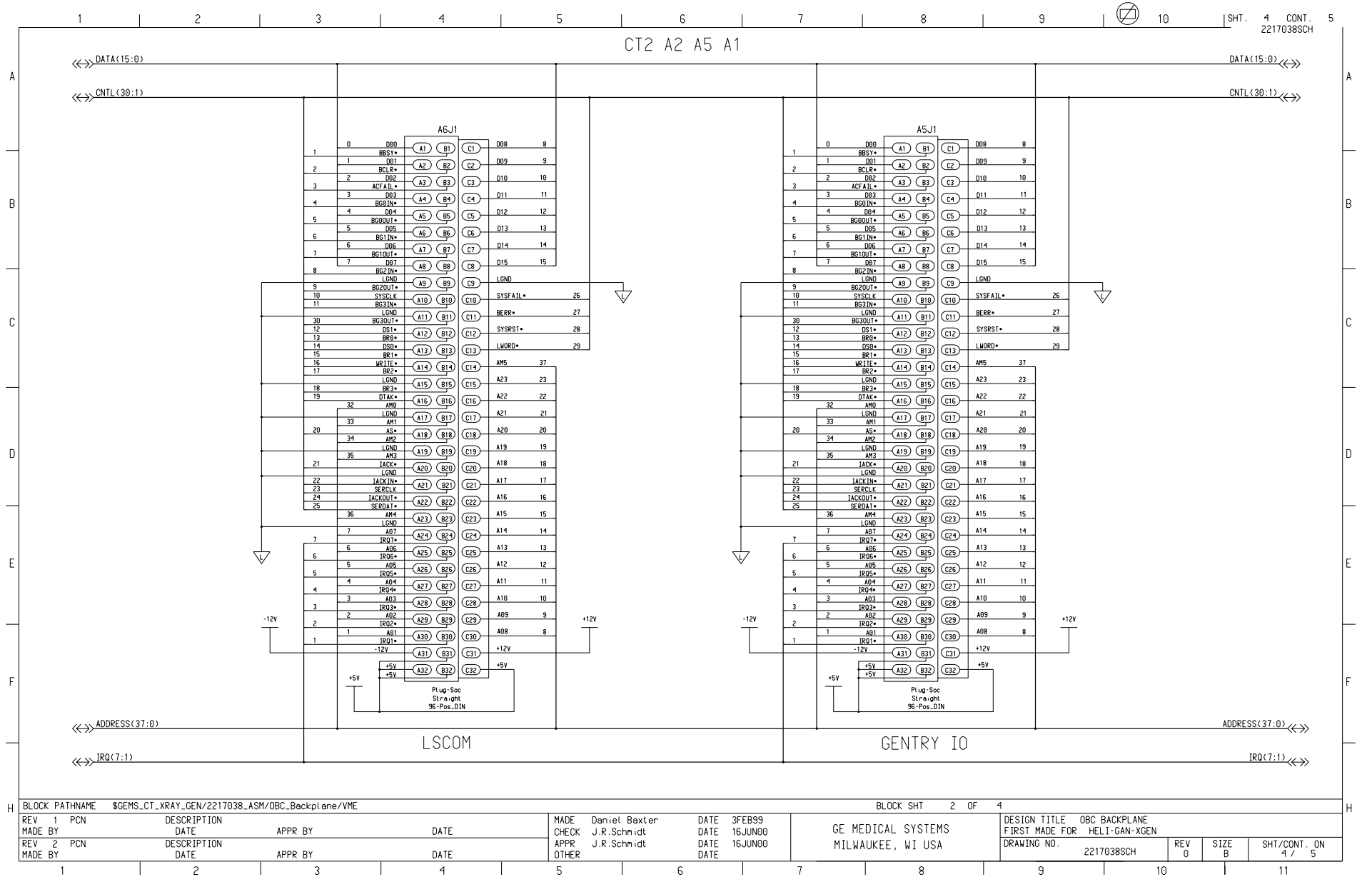


Figure 3-136 2217038, Sheet 4, Rev. 0

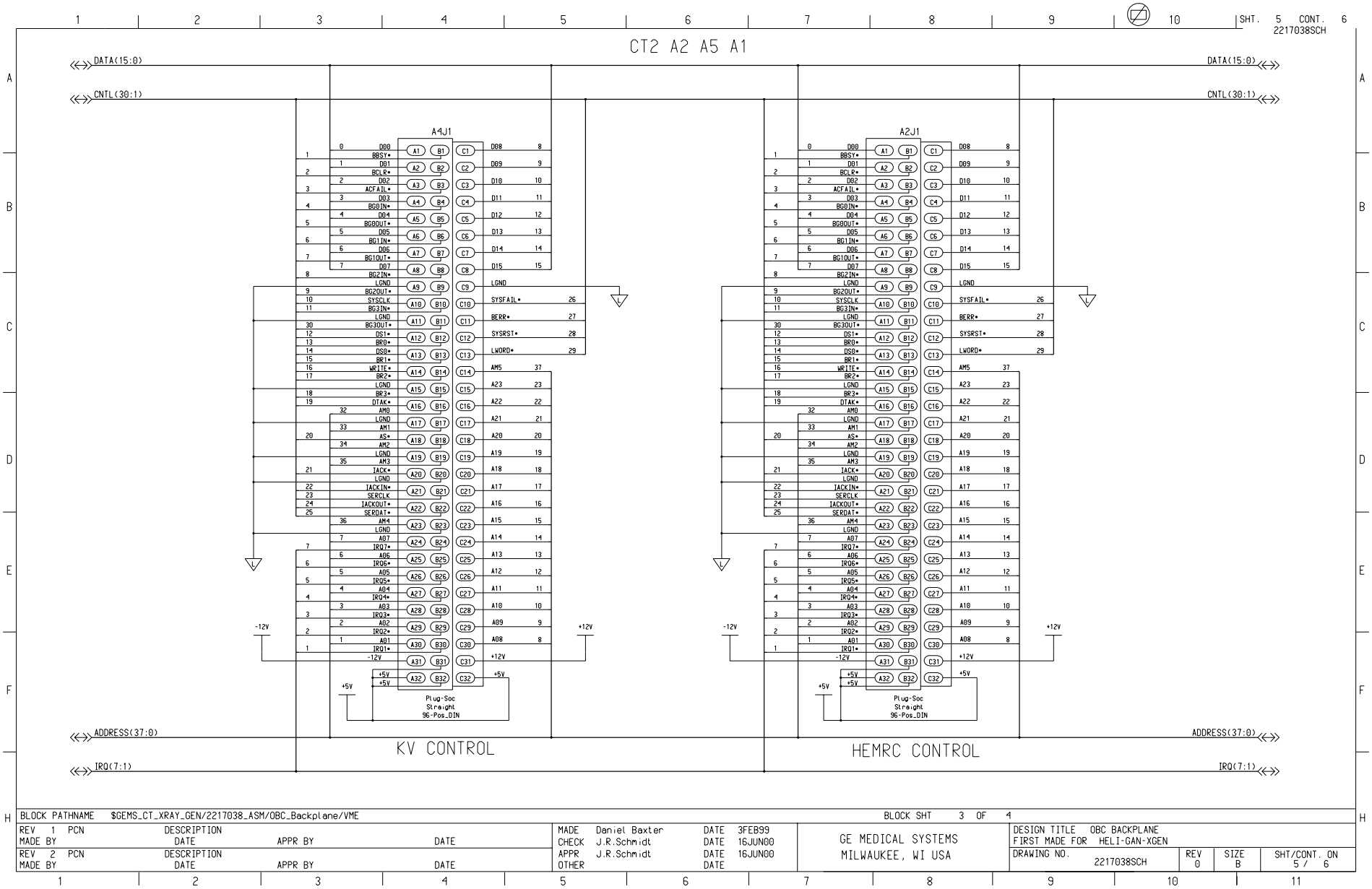


Figure 3-137 2217038, Sheet 5, Rev. 0

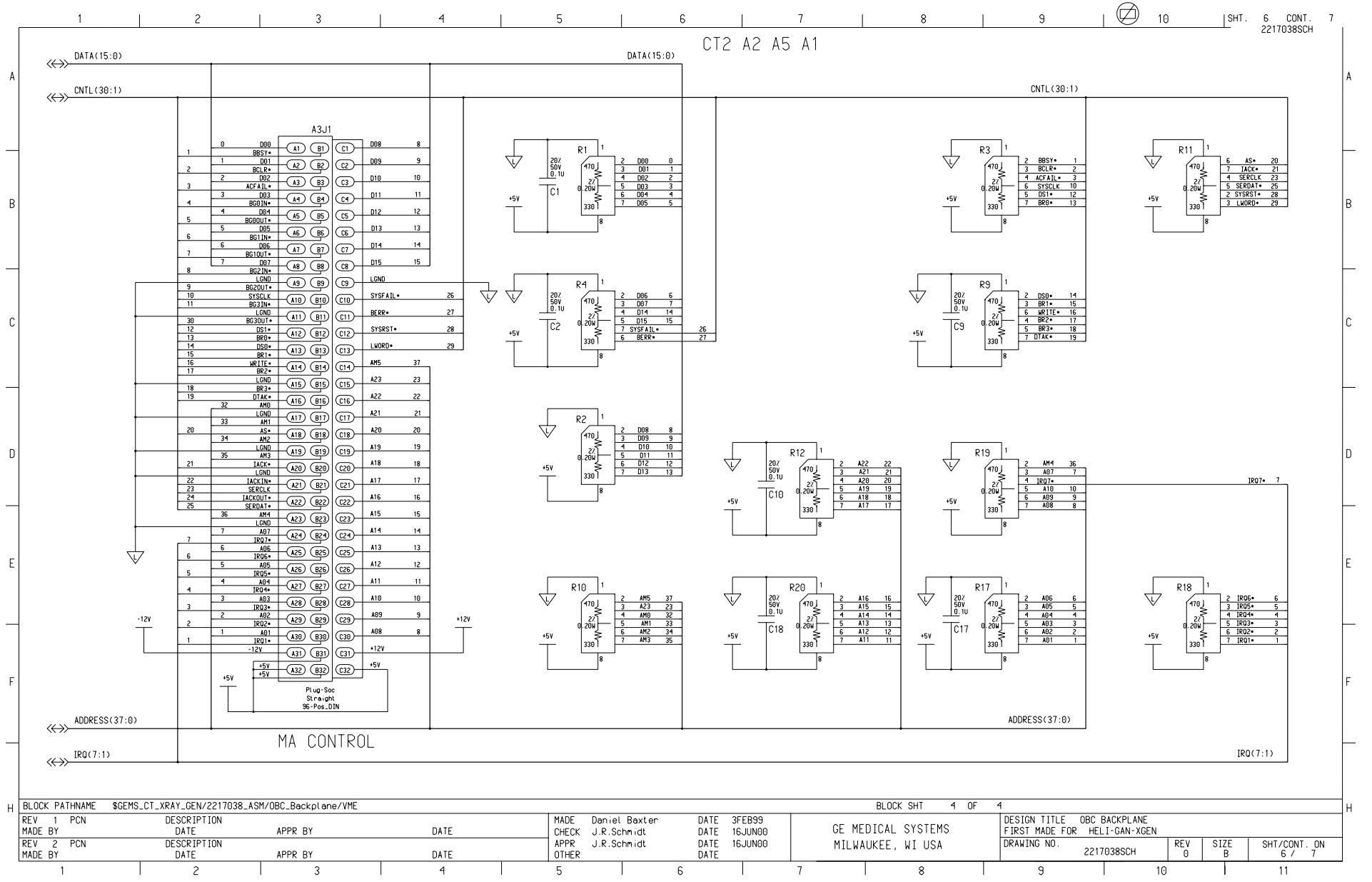


Figure 3-138 2217038, Sheet 6, Rev. 0

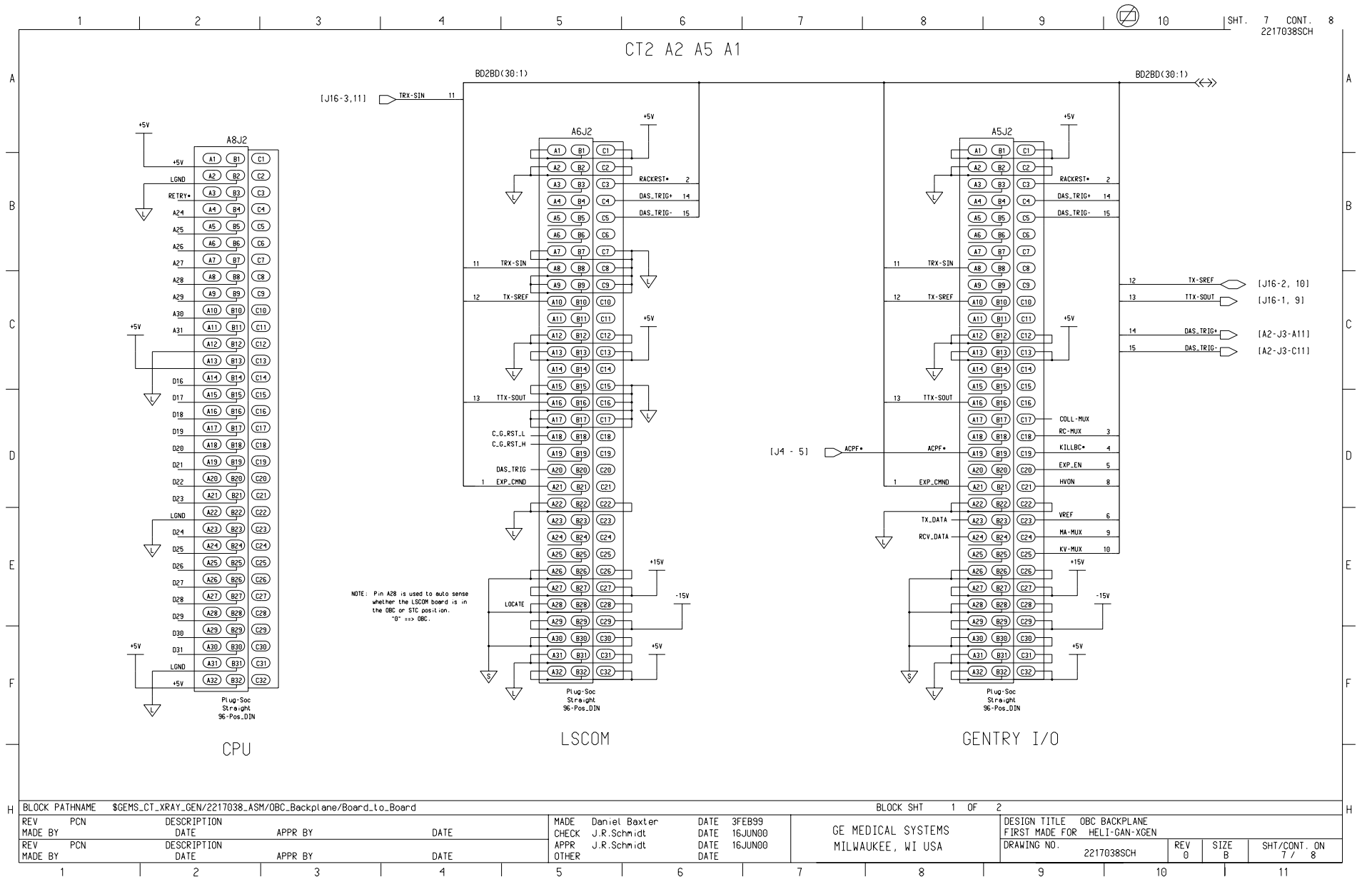


Figure 3-139 2217038, Sheet 7, Rev. 0

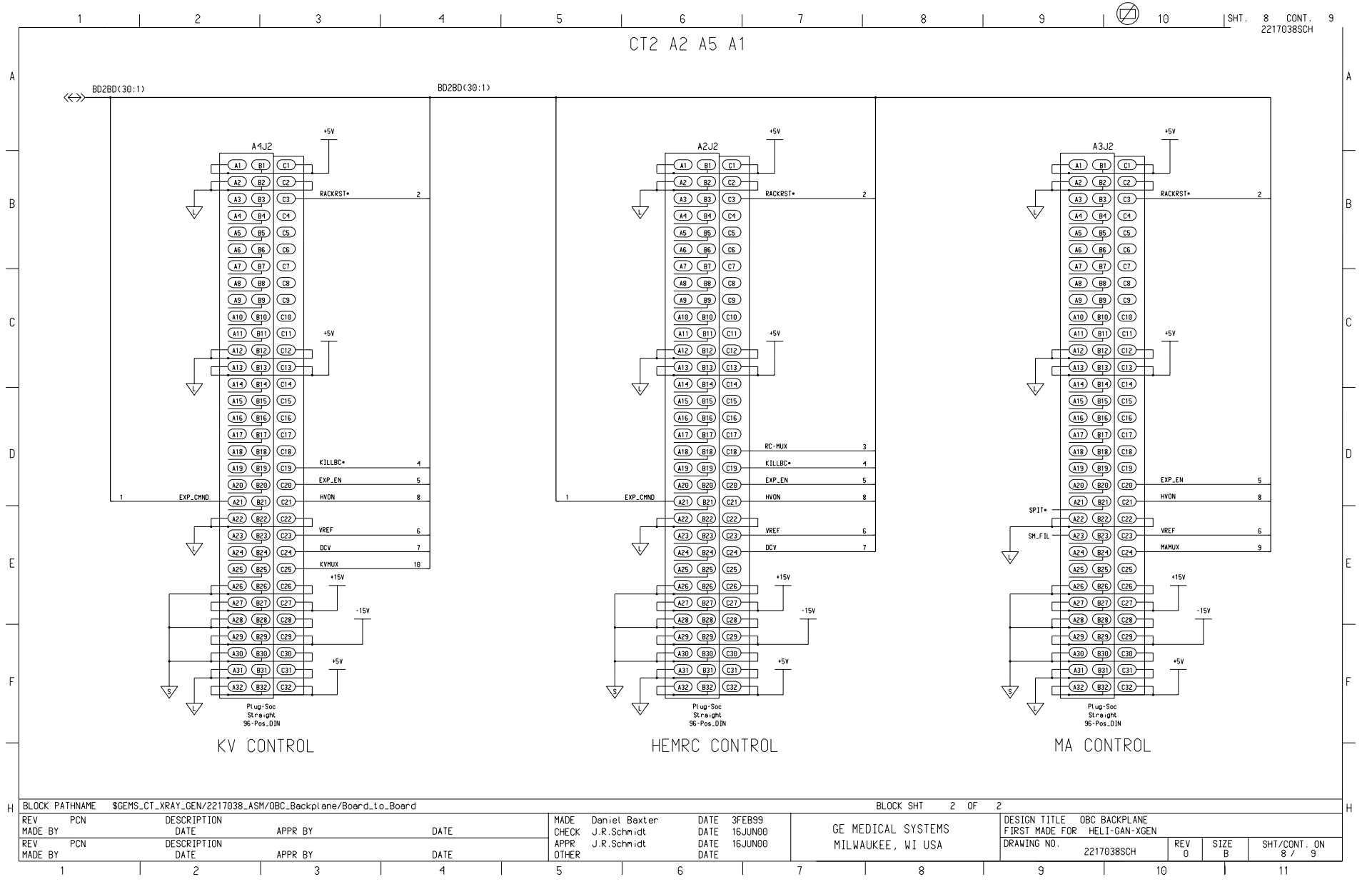


Figure 3-140 2217038, Sheet 8, Rev. 0

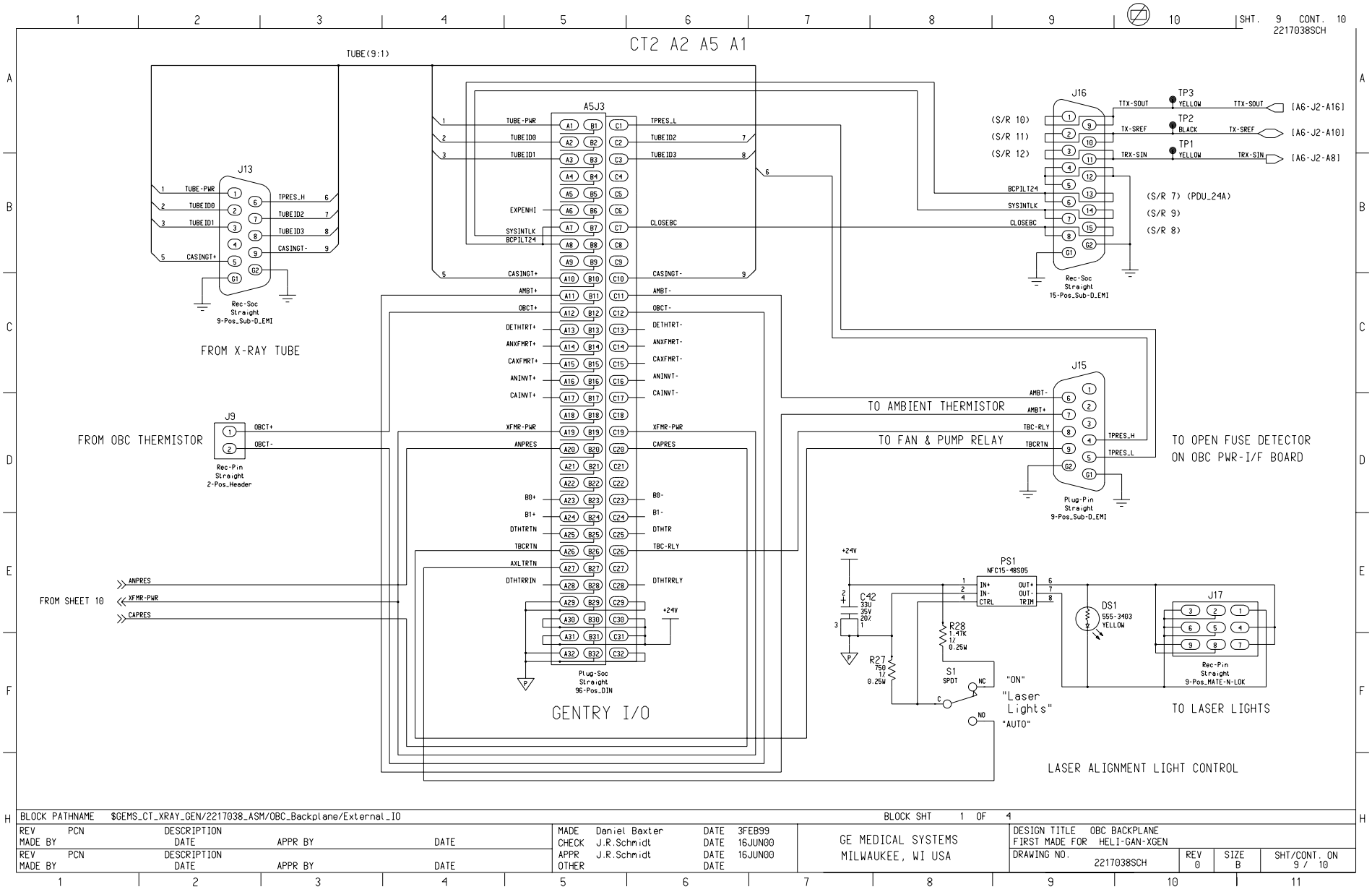


Figure 3-141 2217038, Sheet 9, Rev. 0

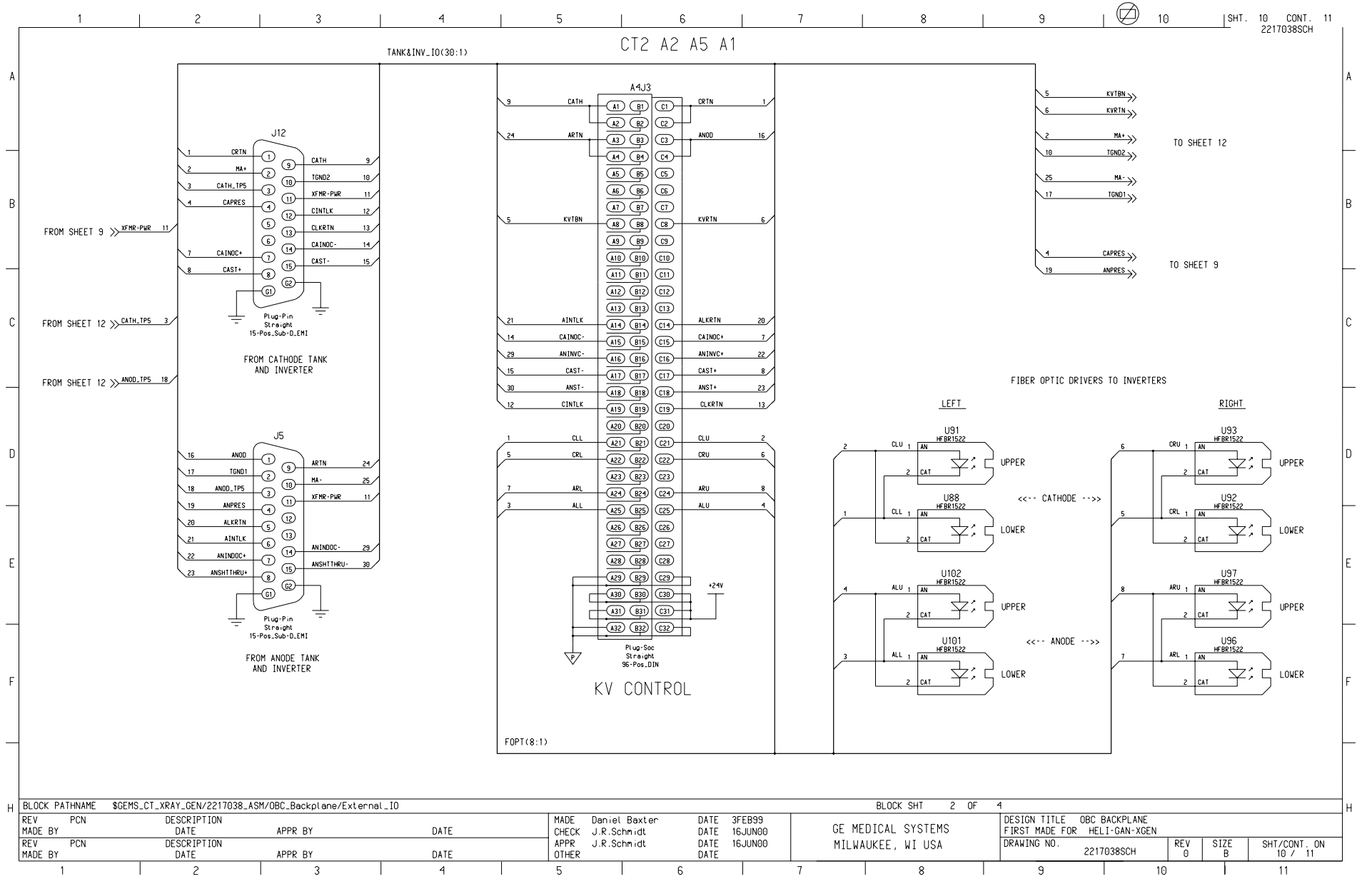


Figure 3-142 2217038, Sheet 10, Rev. 0

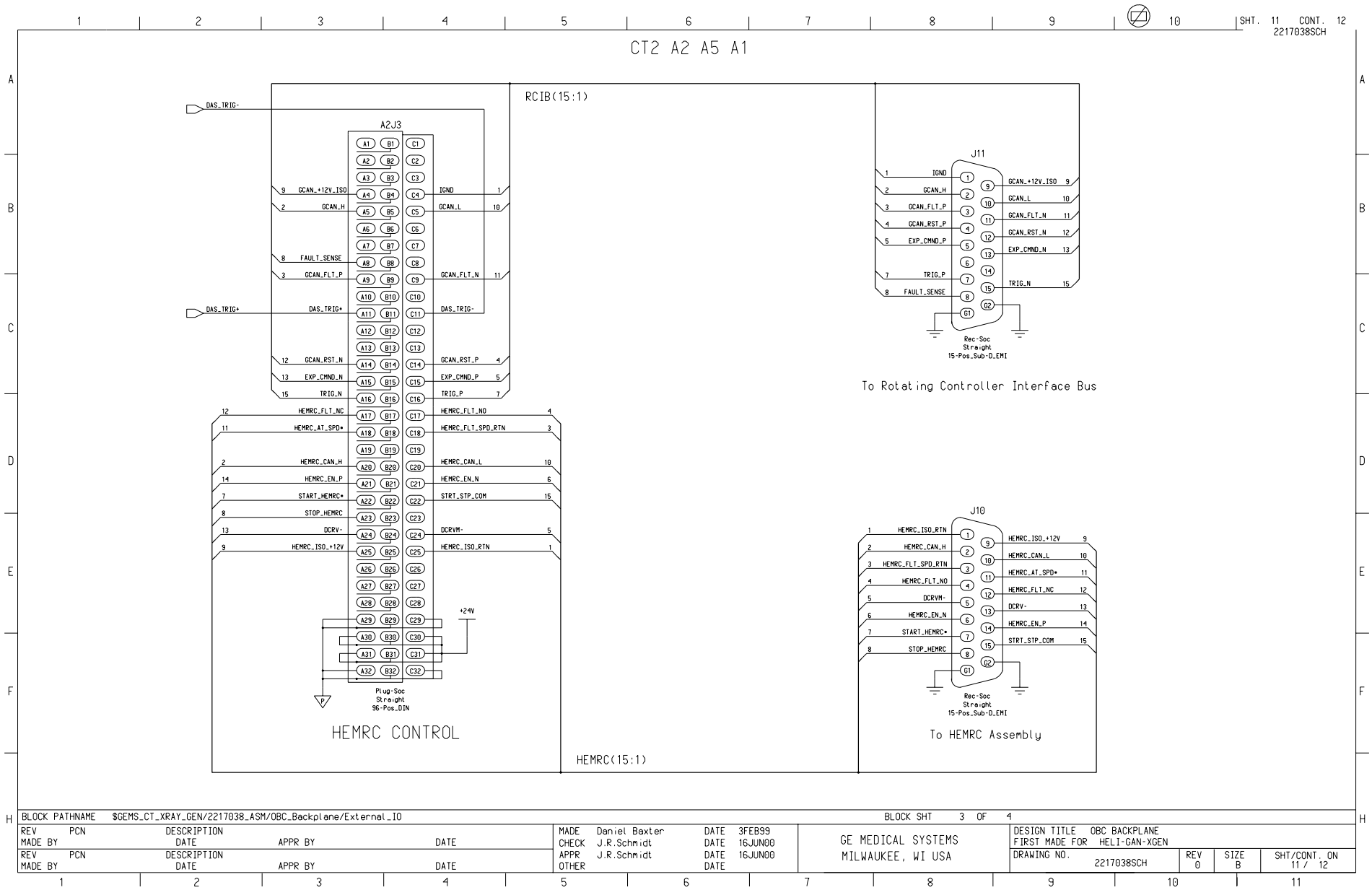


Figure 3-143 2217038, Sheet 11, Rev. 0

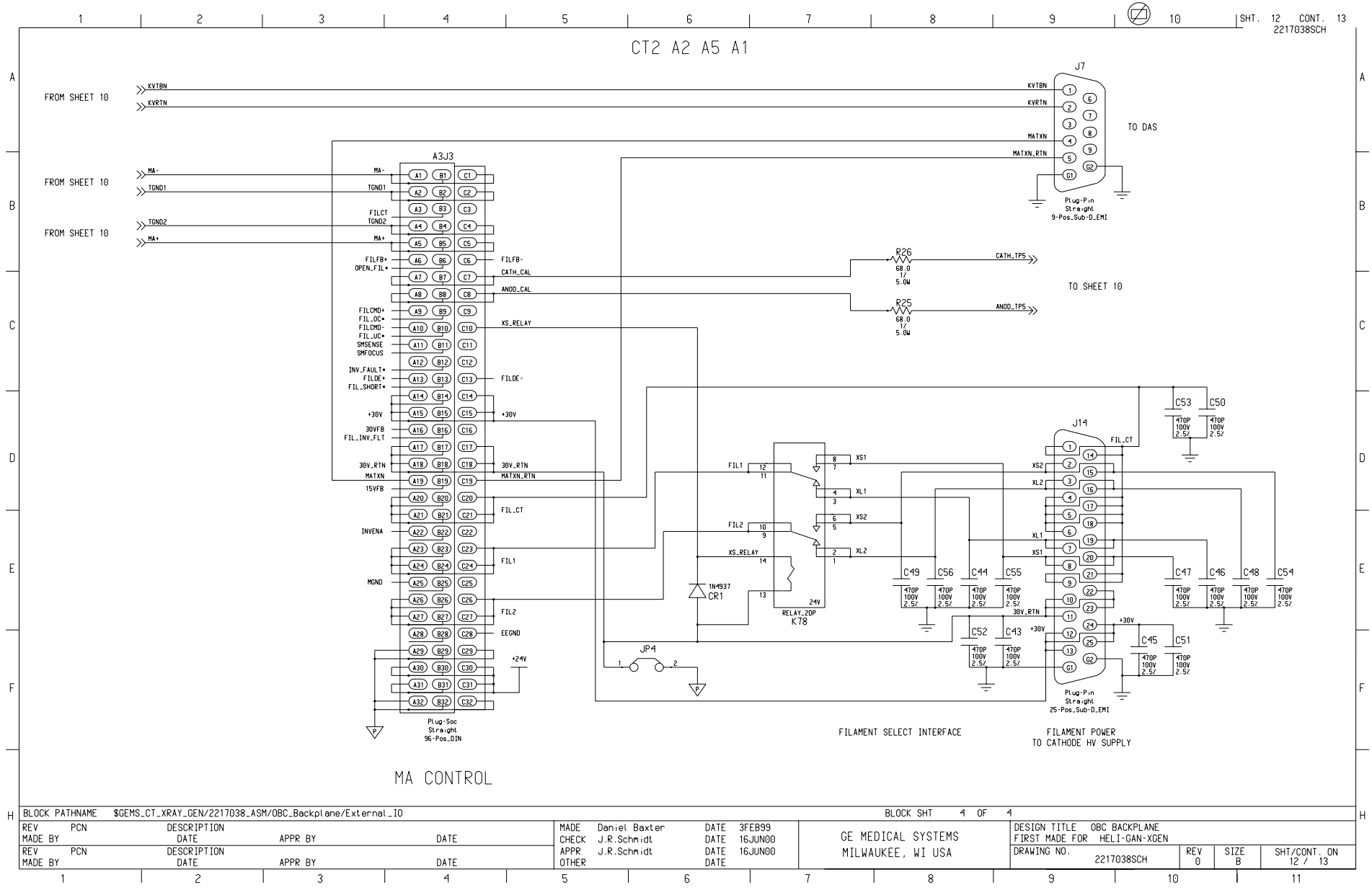


Figure 3-144 2217038, Sheet 12, Rev. 0

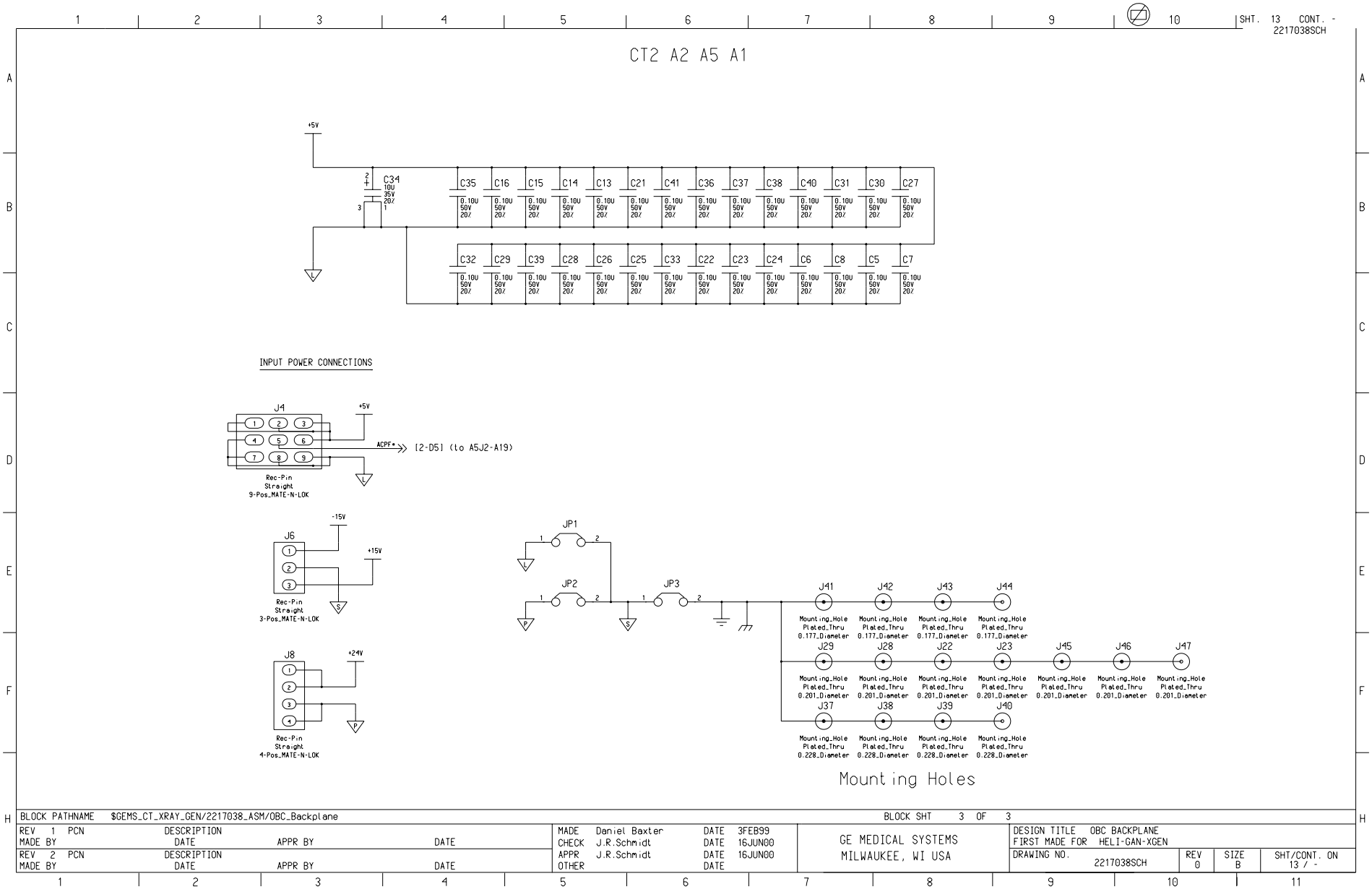


Figure 3-145 2217038, Sheet 13, Rev. 0

4.7 OBC Power I/F - 2240680

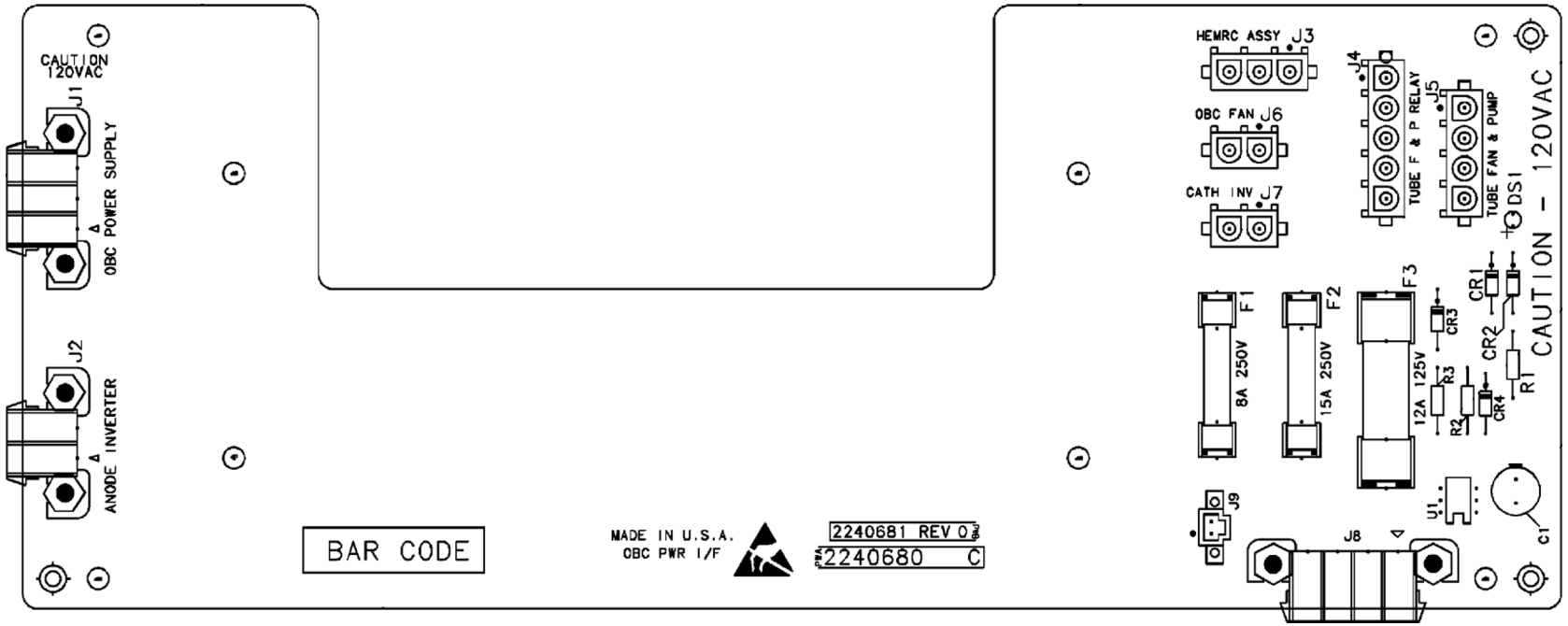


Figure 3-146 OBC Power I/F Board Layout, Rev 0

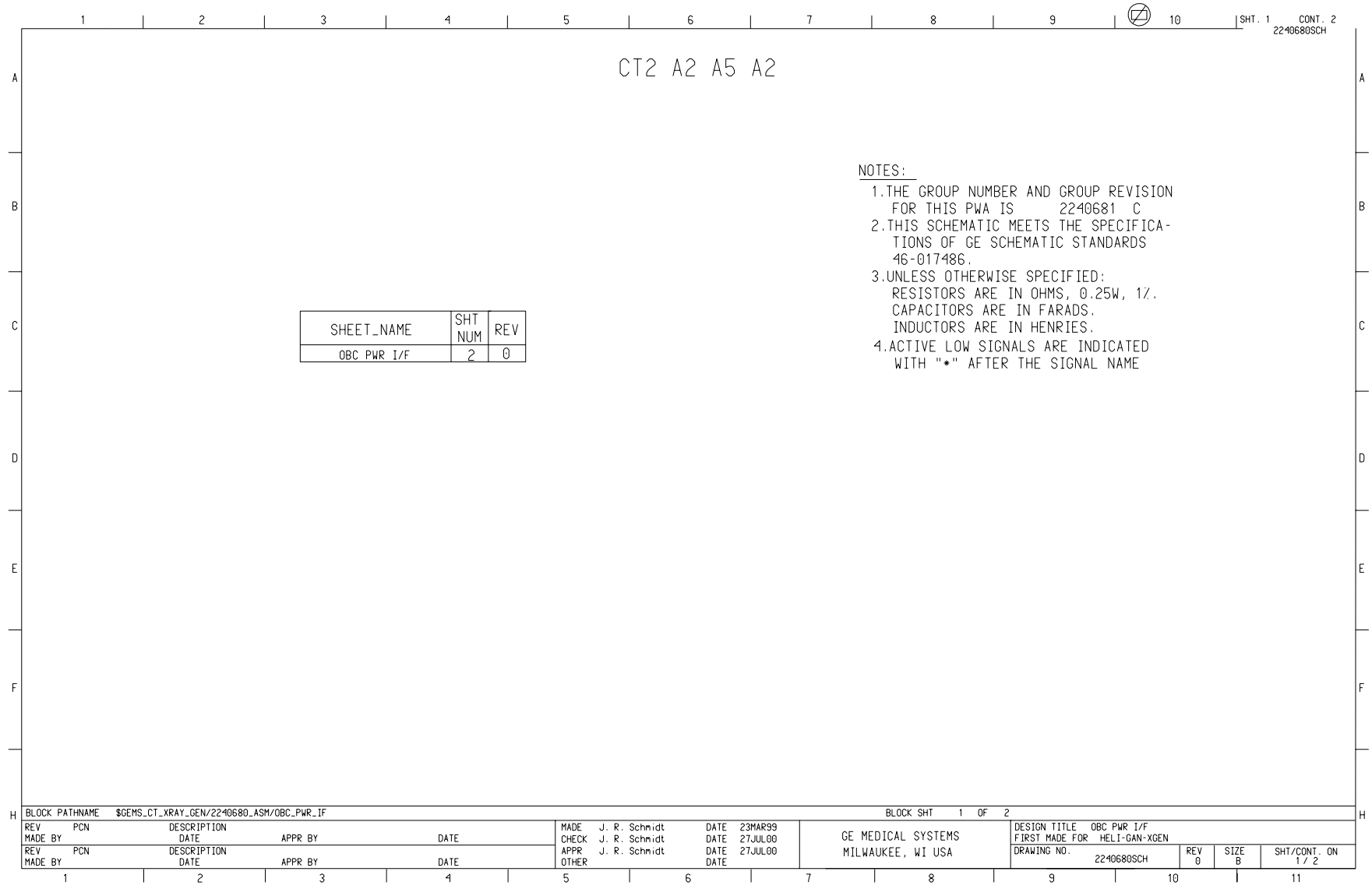


Figure 3-147 2240680, sheet 1, rev. 0

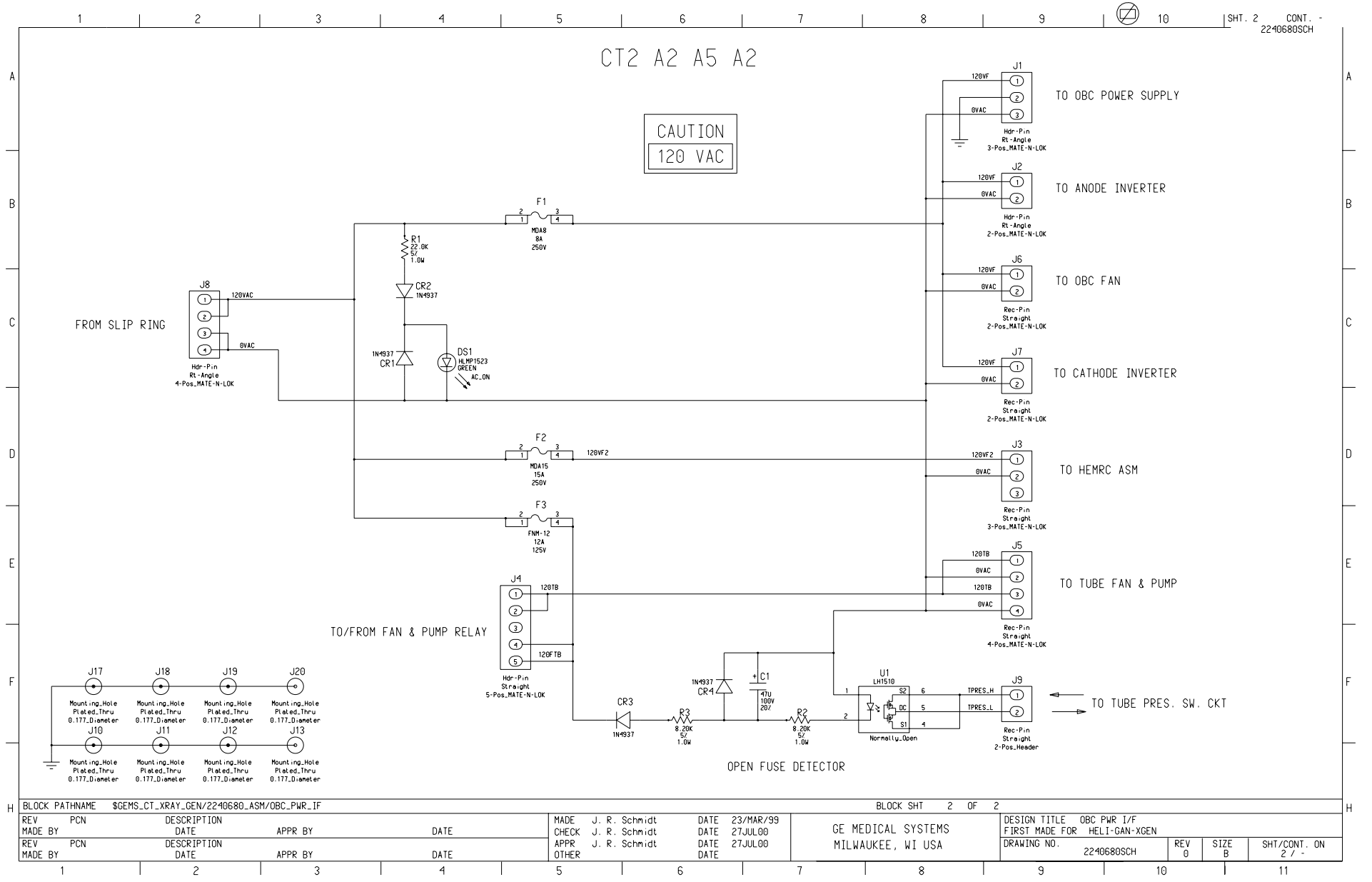


Figure 3-148 2240680, sheet 2, rev. 0

4.8 Tilt Relay Board - 2257518

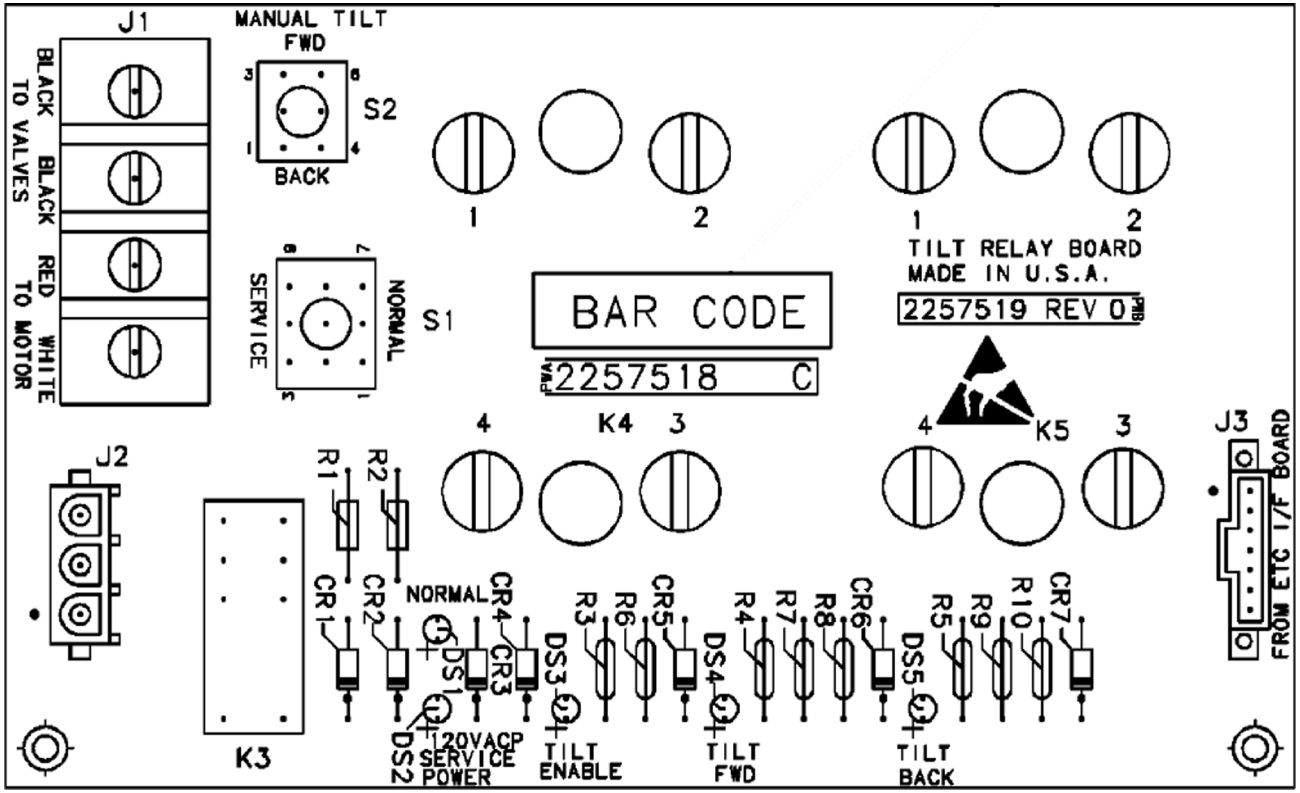


Figure 3-149 Tilt Relay Board Layout, Rev 0

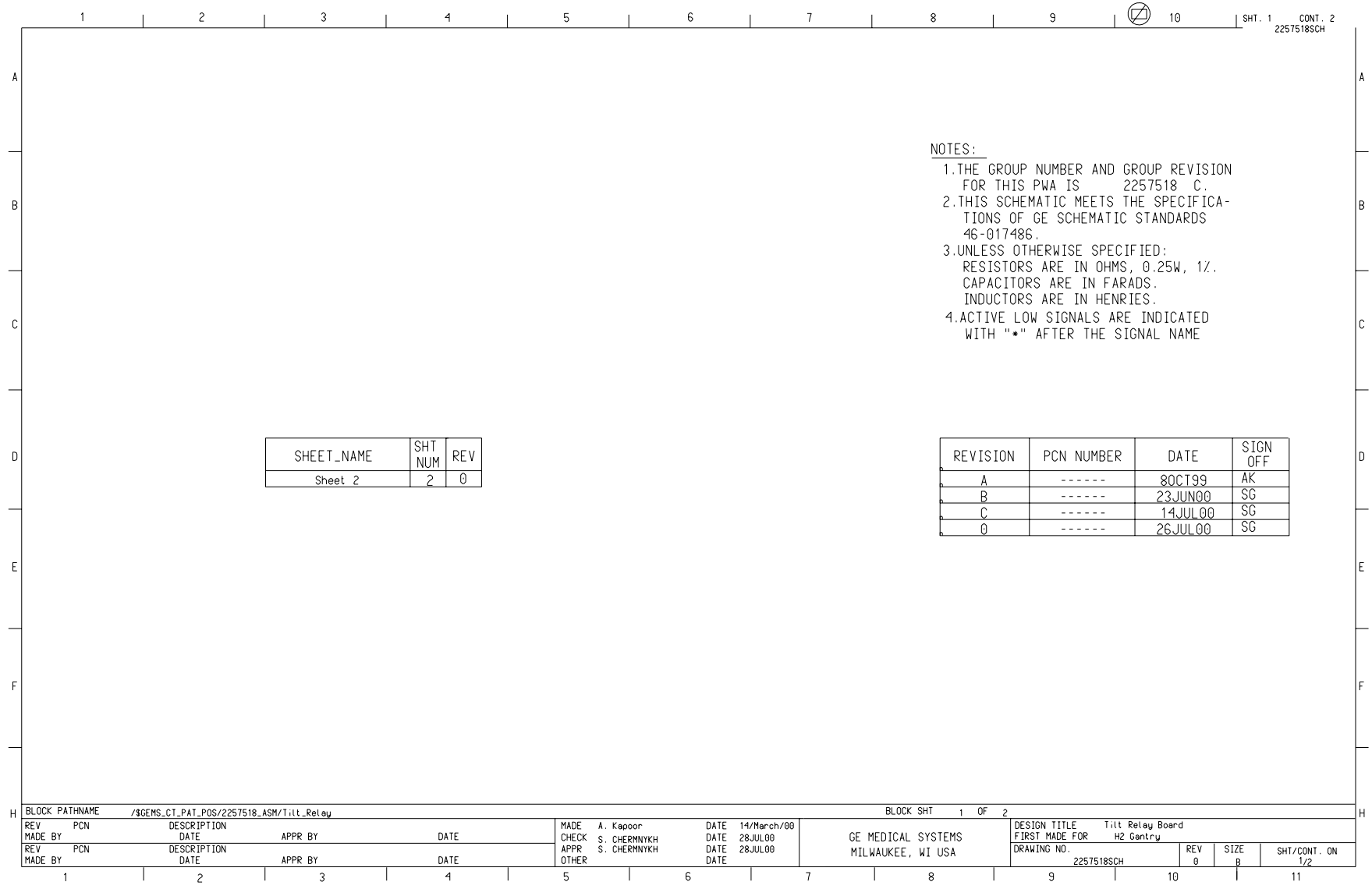


Figure 3-150 2257518, Sheet 1, Rev. 0

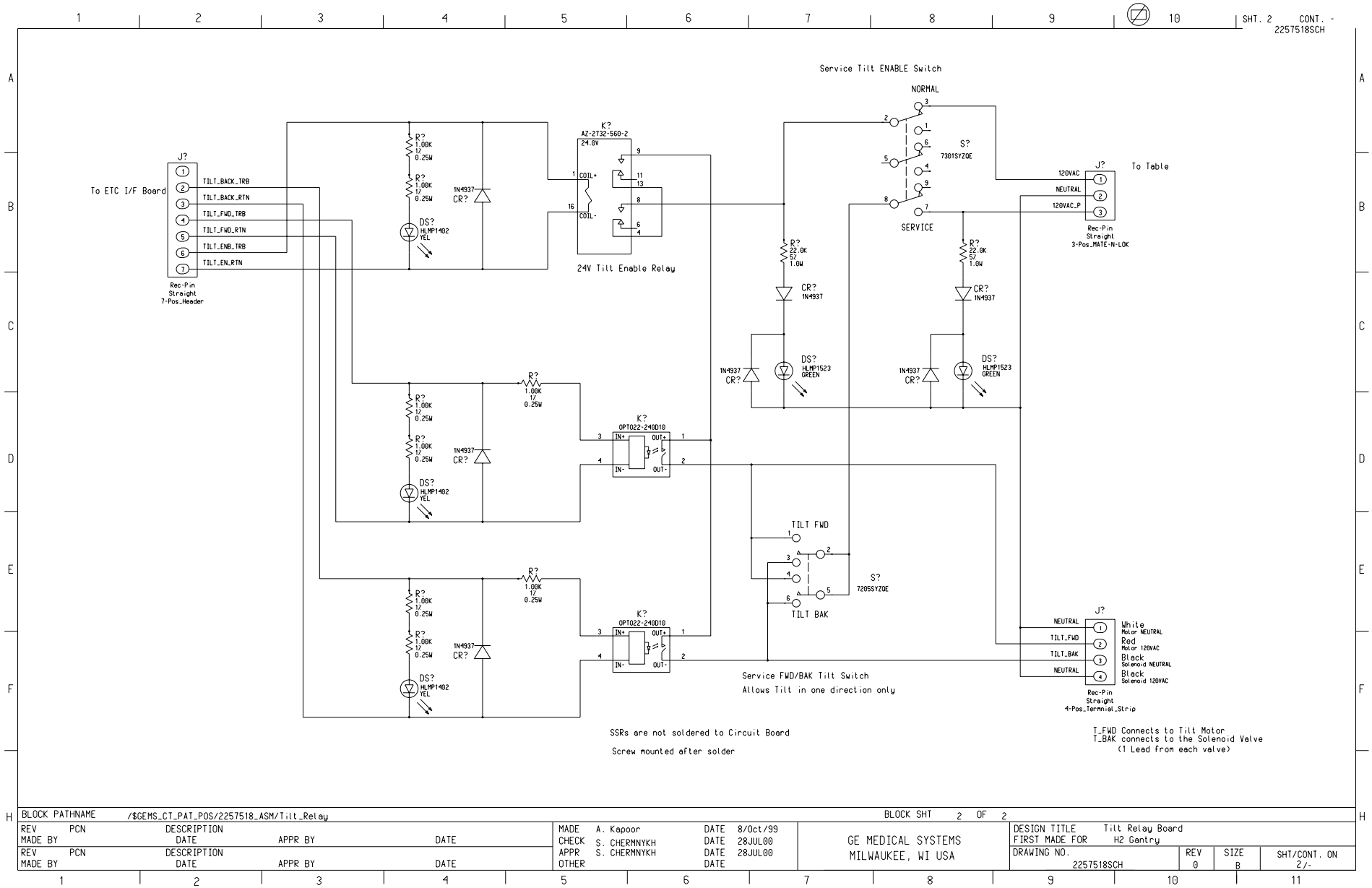


Figure 3-151 2257518, Sheet 2, Rev. 0

Section 5.0 — High Voltage System Boards

5.1 HEMRC Assembly - 2208043

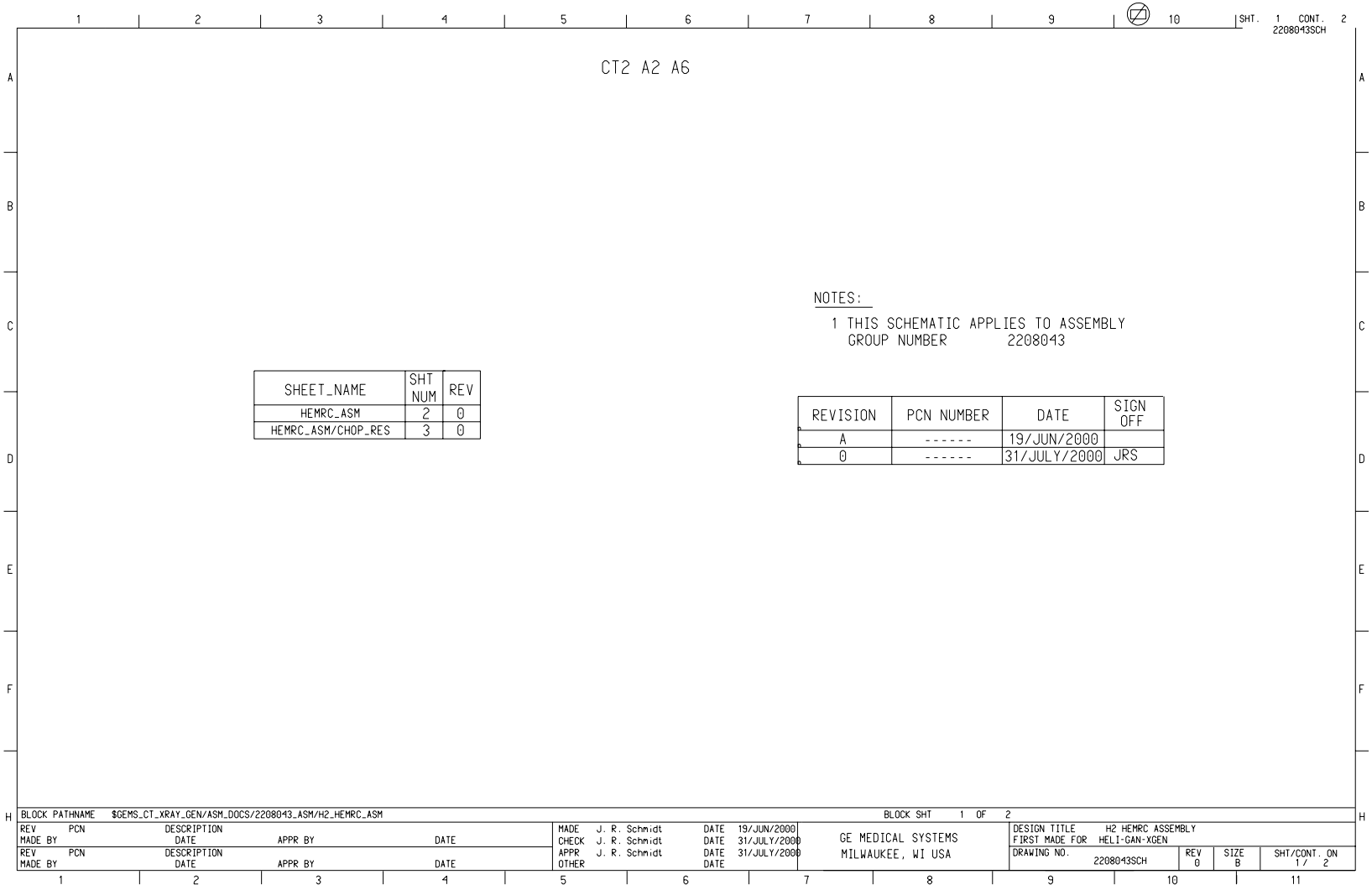


Figure 3-152 2208043, Sheet 1, Rev. 0

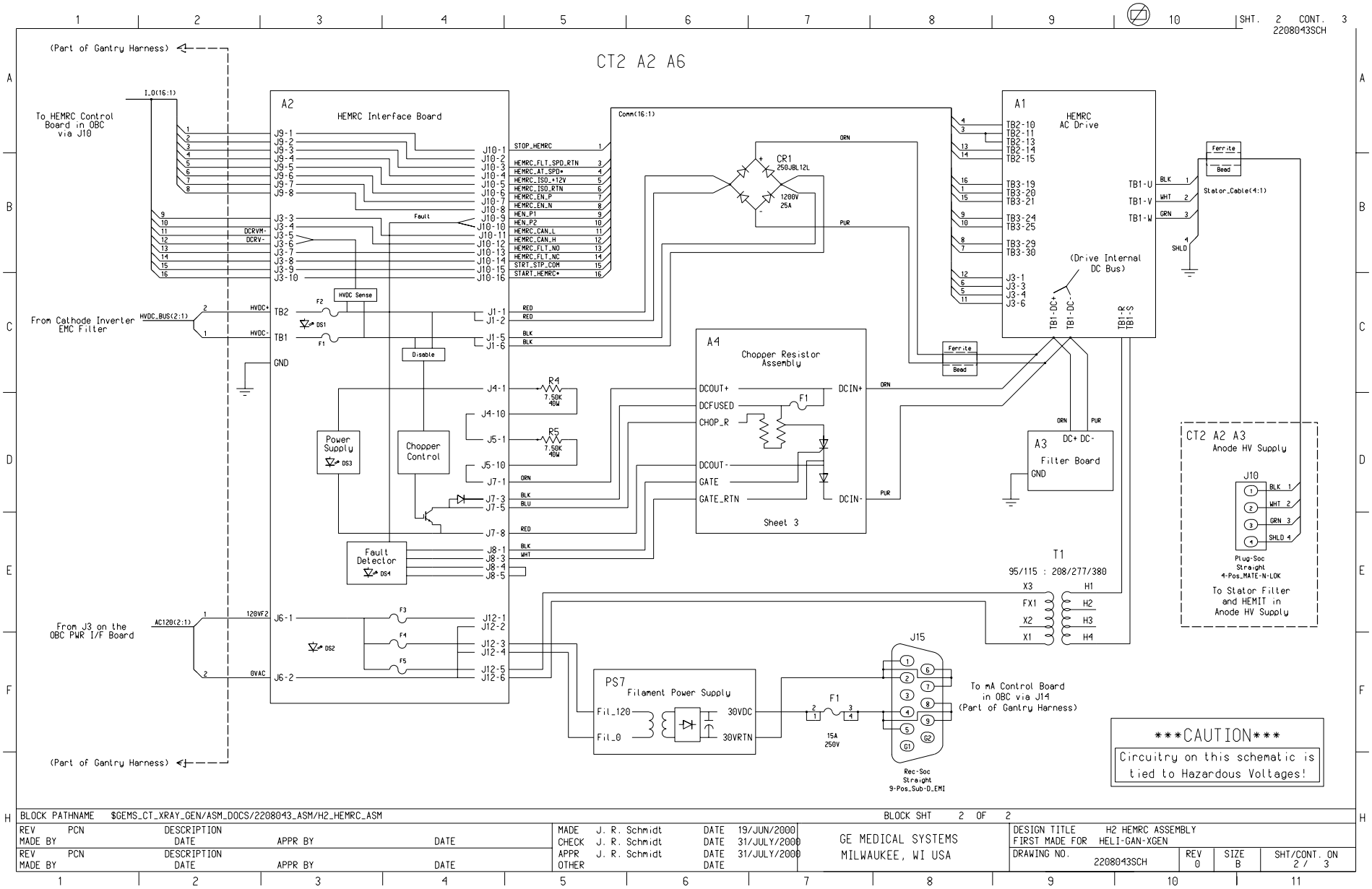


Figure 3-153 2208043, Sheet 2, Rev. 0

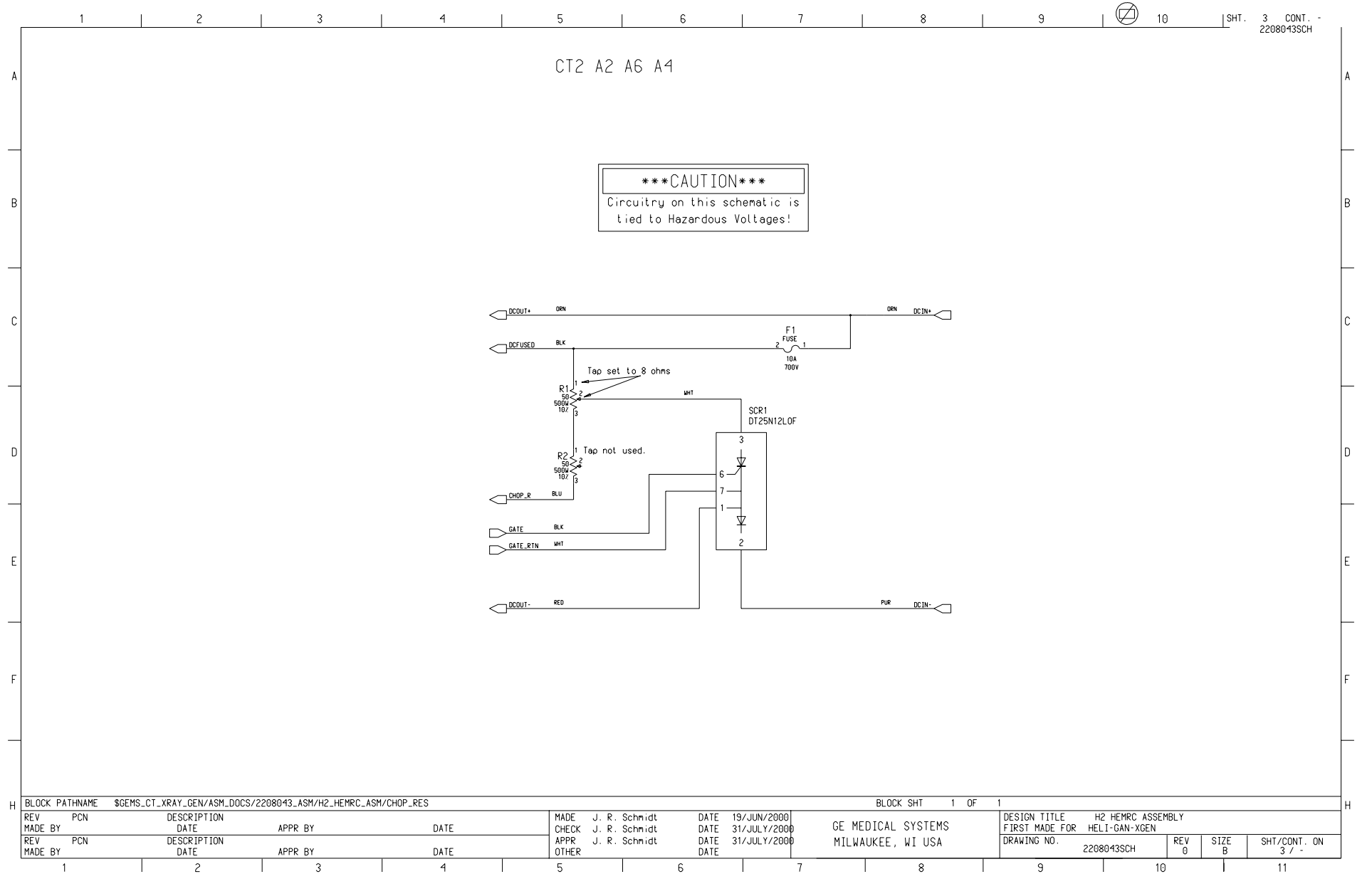


Figure 3-154 2208043, Sheet 3, Rev. 0

5.2 HEMRC Interface Board - 2145832

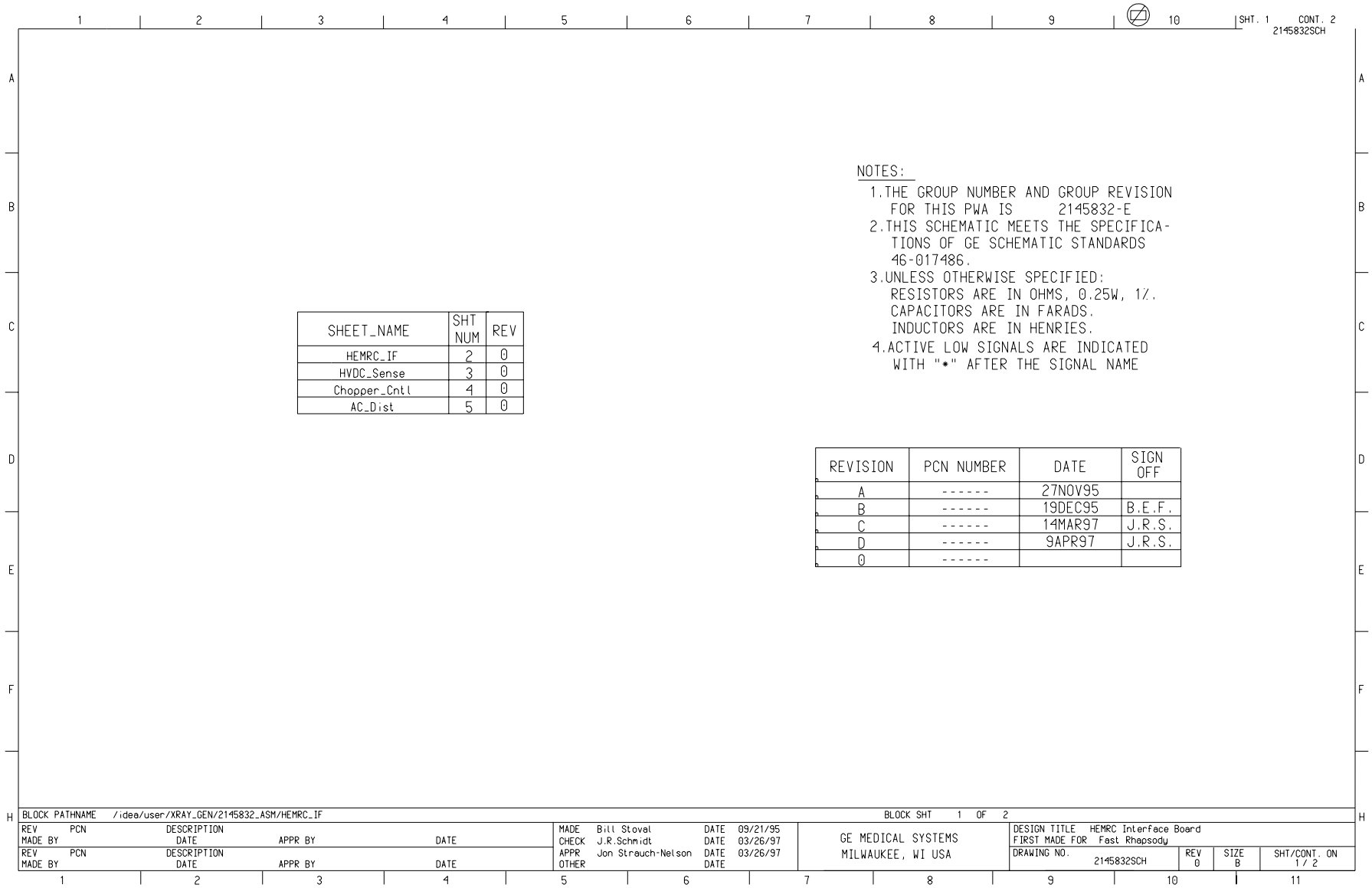


Figure 3-155 2145832 Sheet 1 Rev. 0

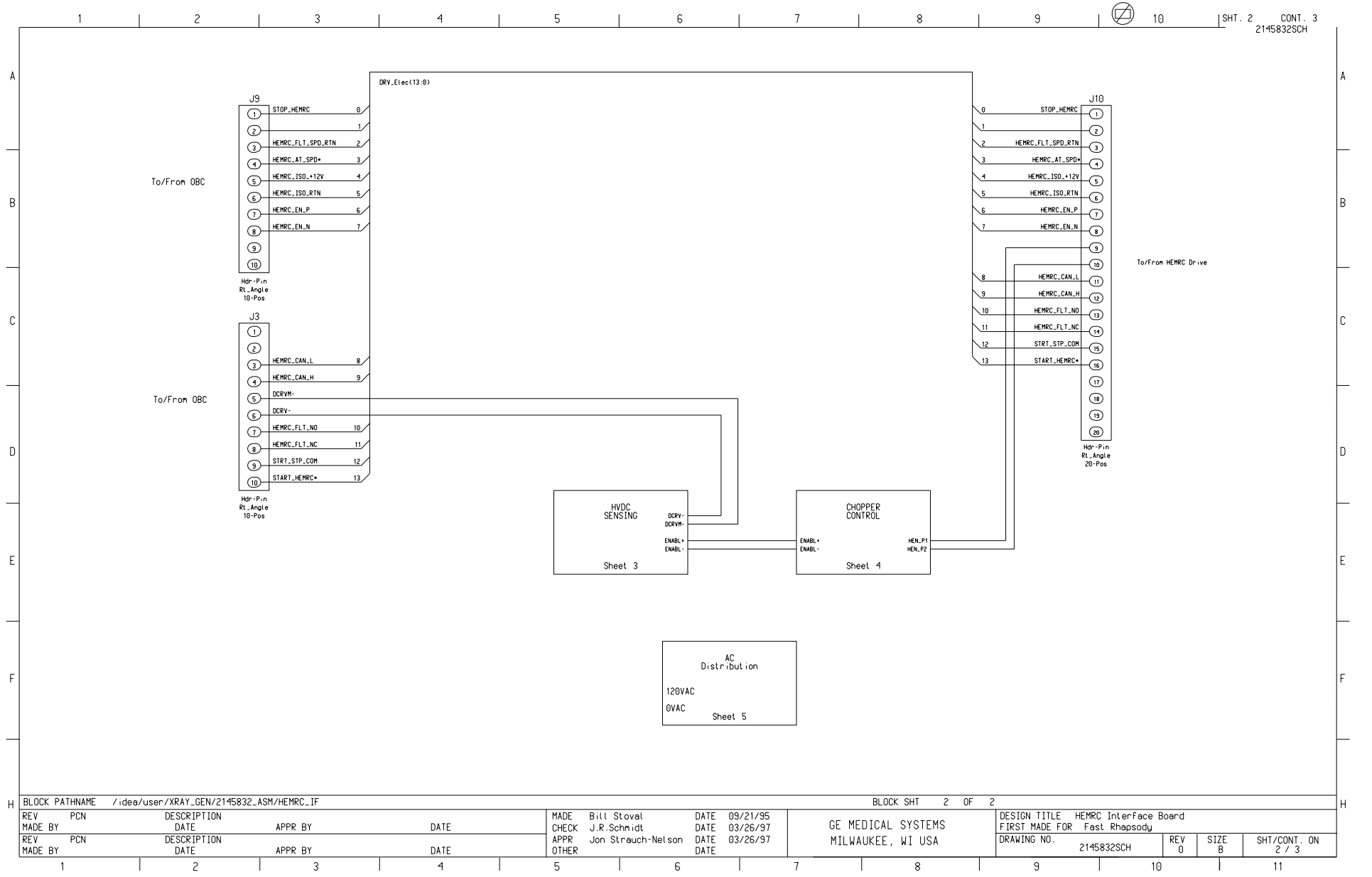


Figure 3-156 2145832 Sheet 2 Rev. 0

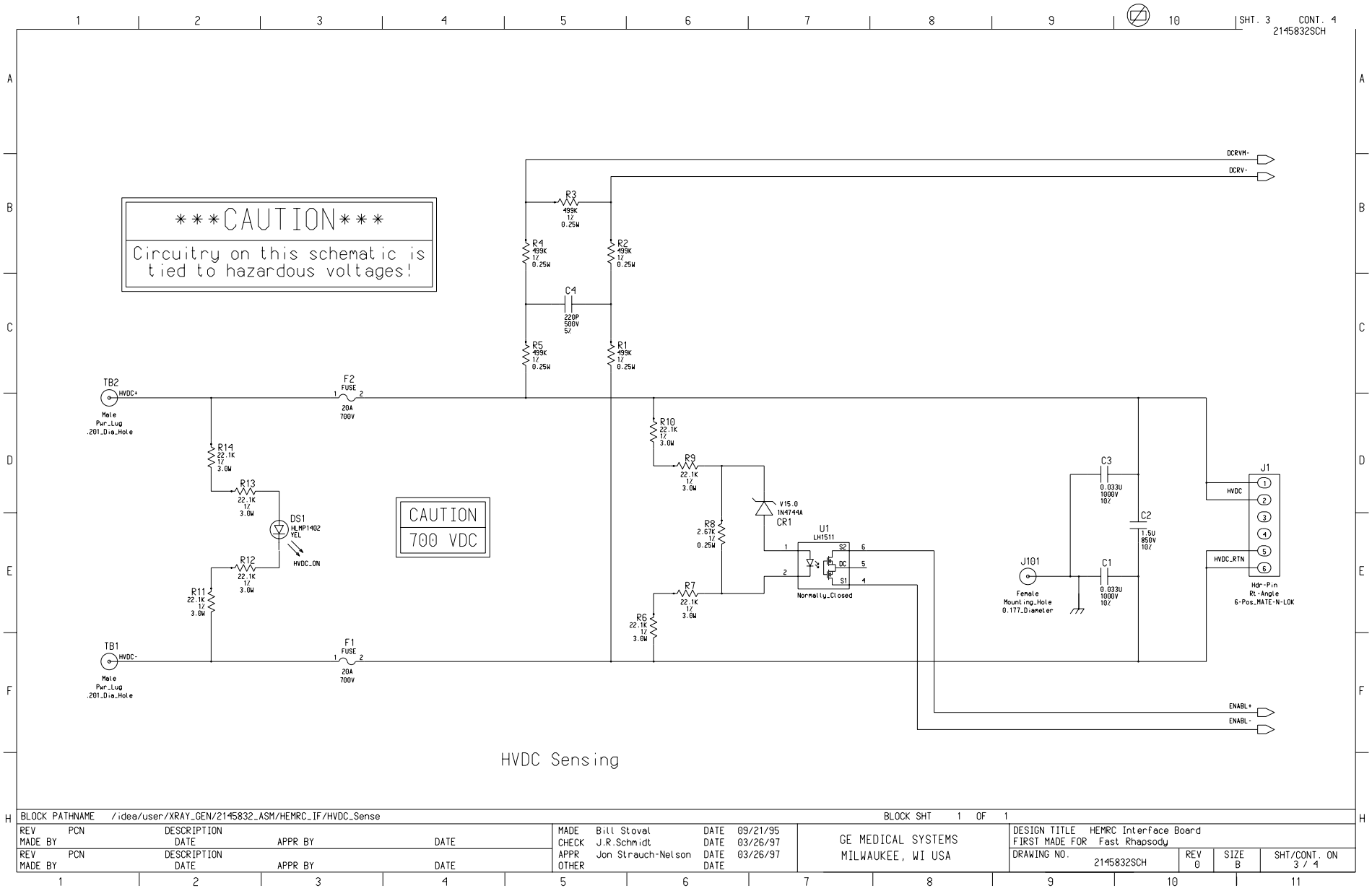


Figure 3-157 2145832 Sheet 3 Rev. 0

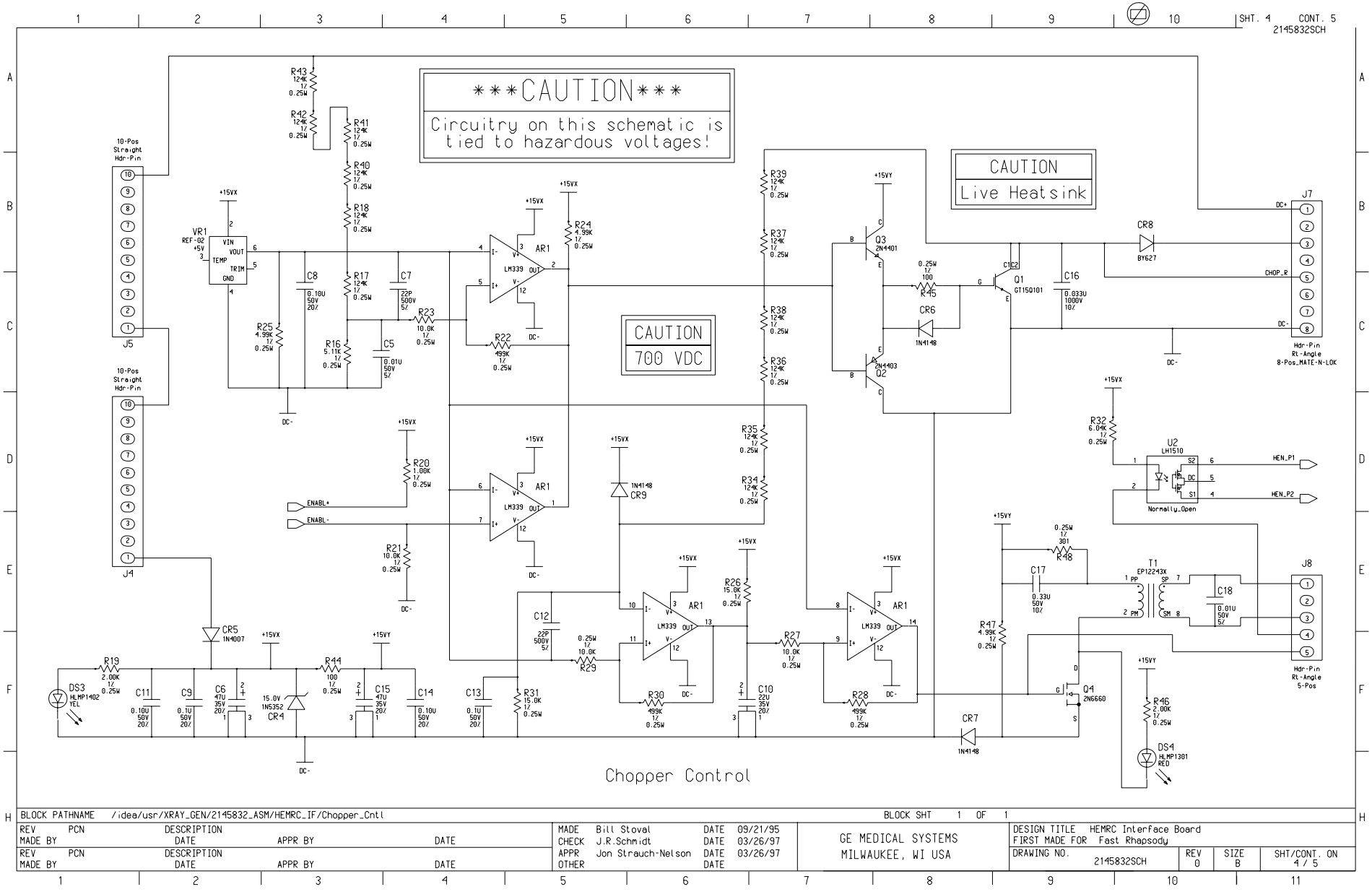


Figure 3-158 2145832 Sheet 4 Rev. 0

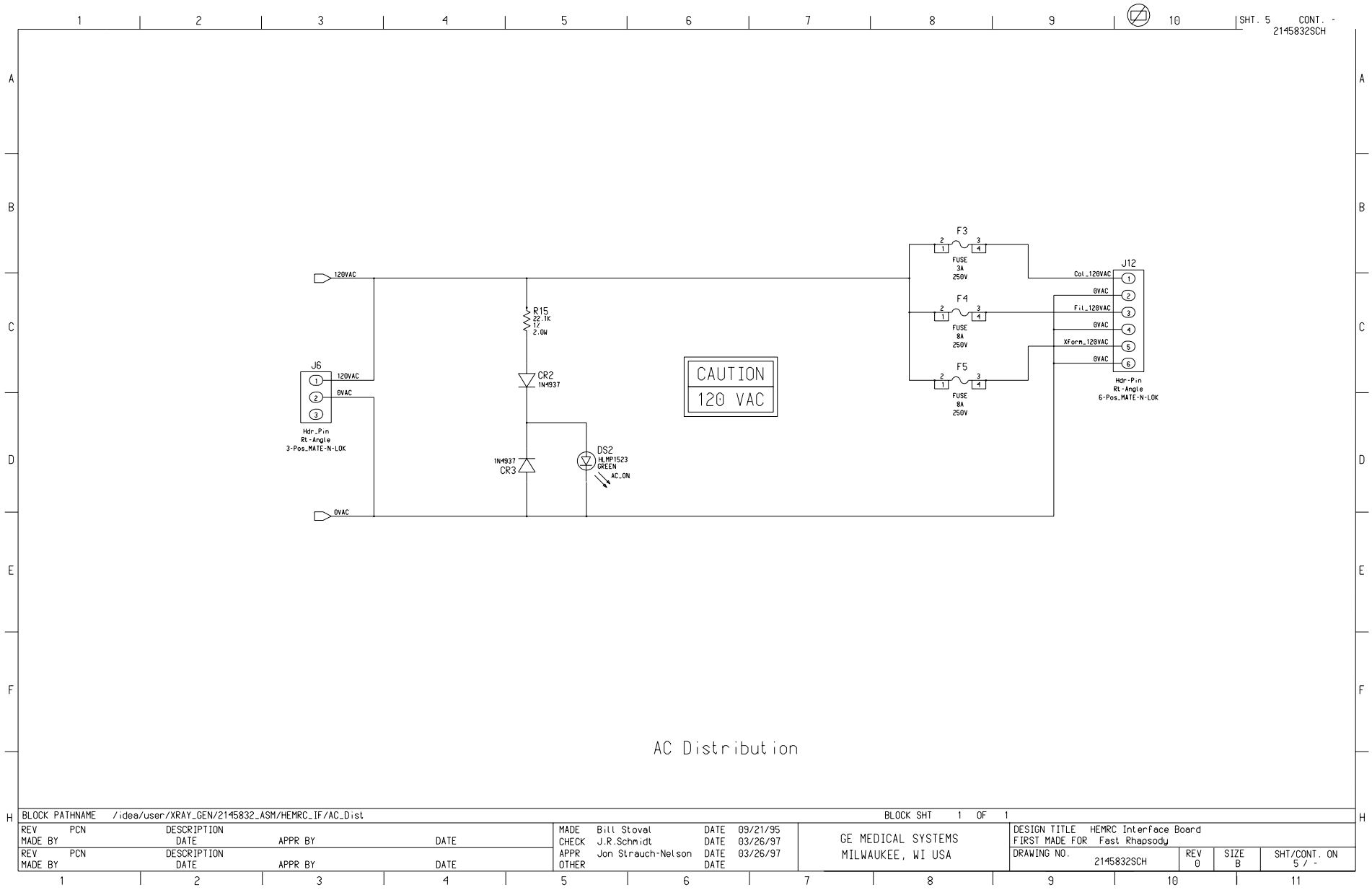


Figure 3-159 2145832 Sheet 5 Rev. 0

5.3 HEMRC Filter Board - 2168593

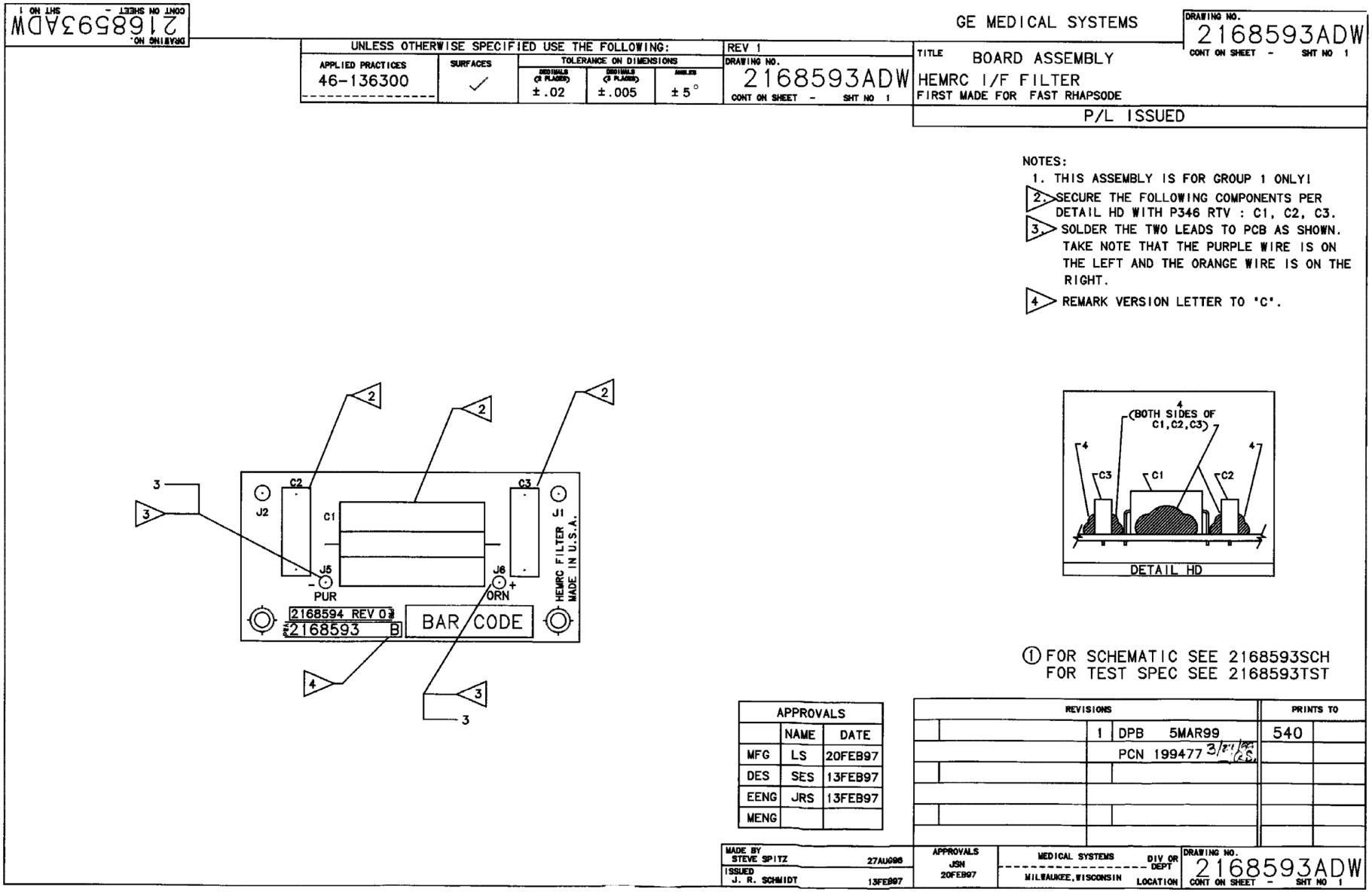


Figure 3-160 2168593 Board, rev 1

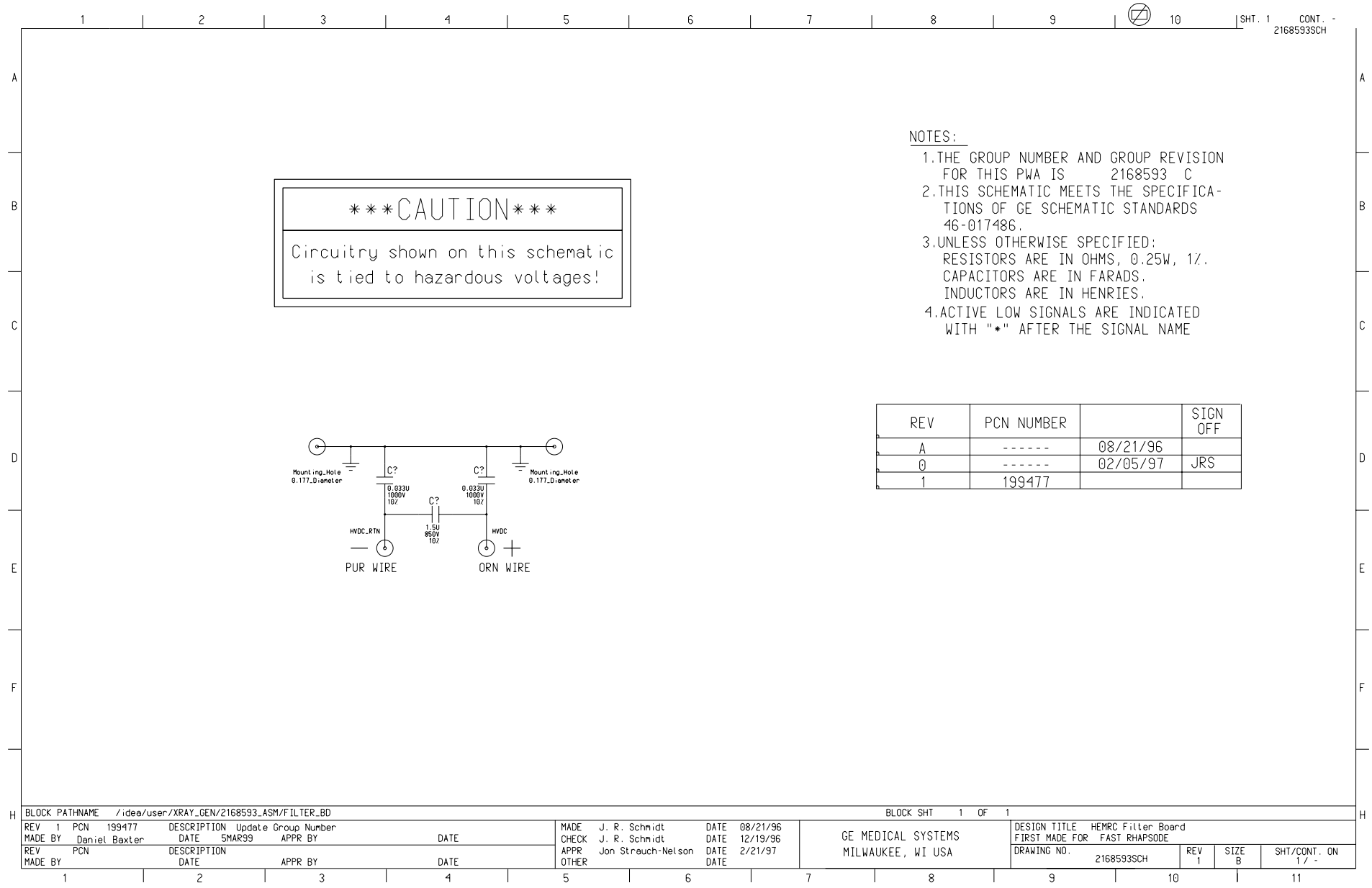


Figure 3-161 2168593, Sheet 1, Rev. 1

5.4 Inverter Gate Driver - 2107617

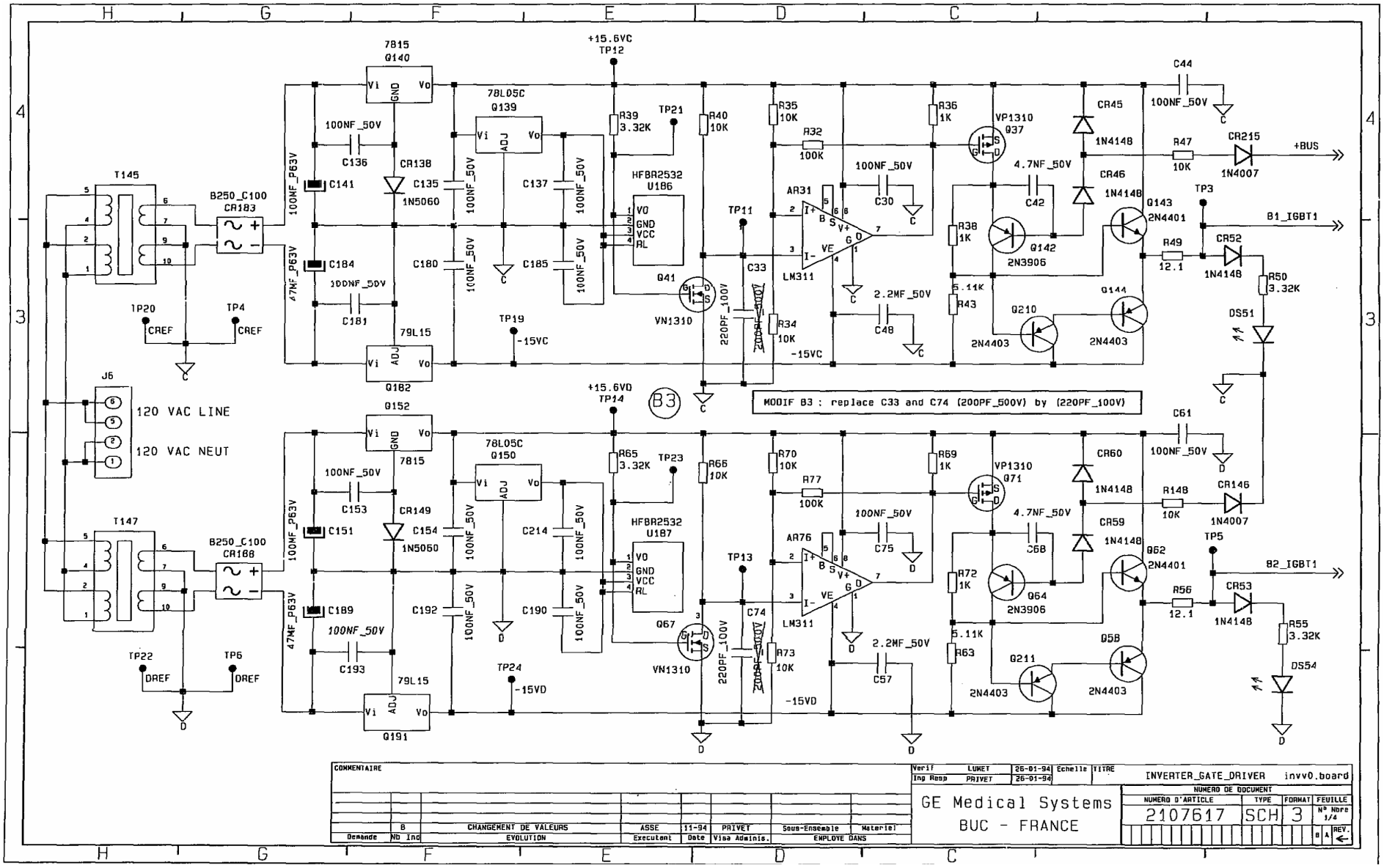


Figure 3-162 2107617, Sheet 1, Rev. B

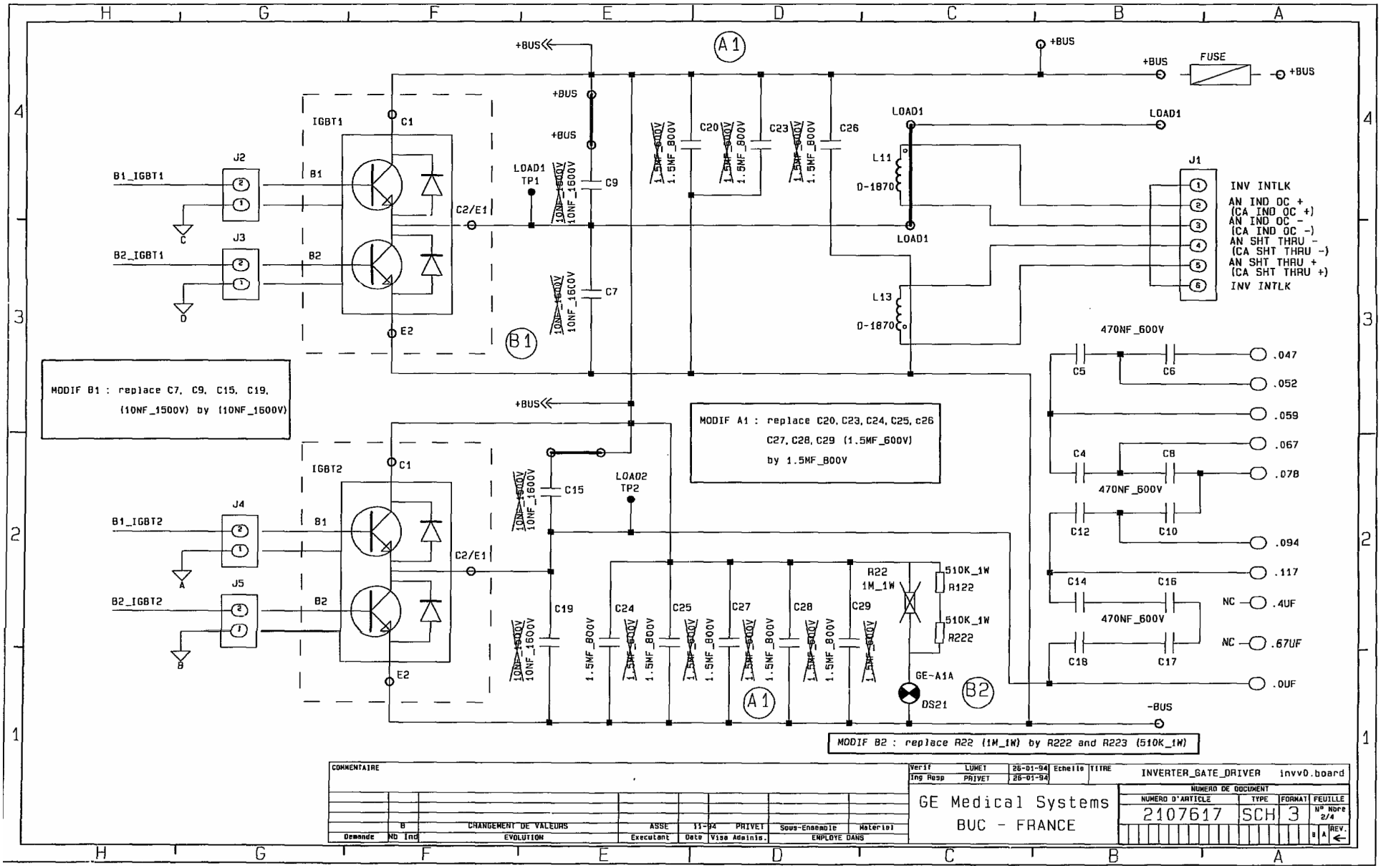


Figure 3-163 2107617, Sheet 2, Rev. B

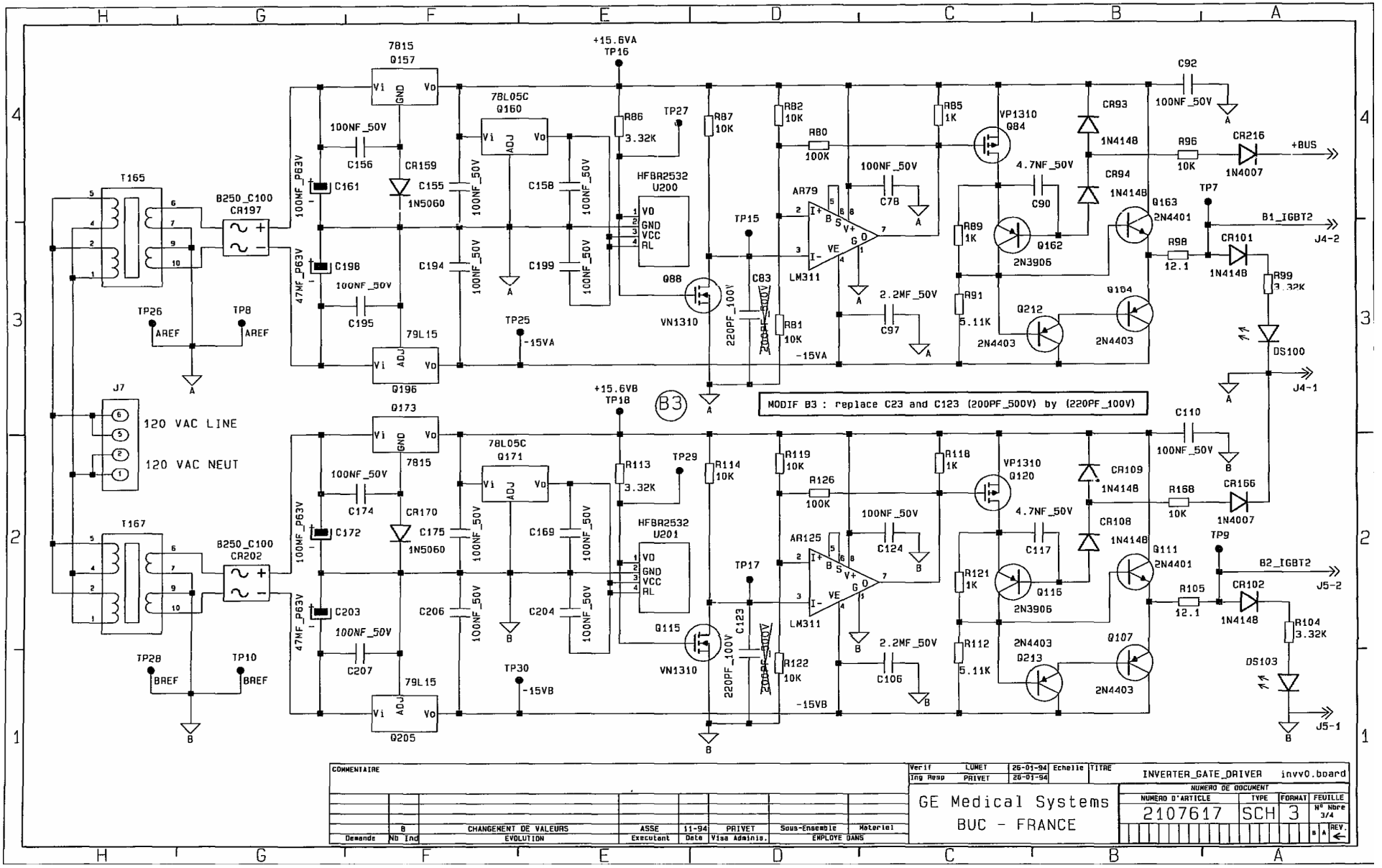


Figure 3-164 2107617, Sheet 3, Rev. B

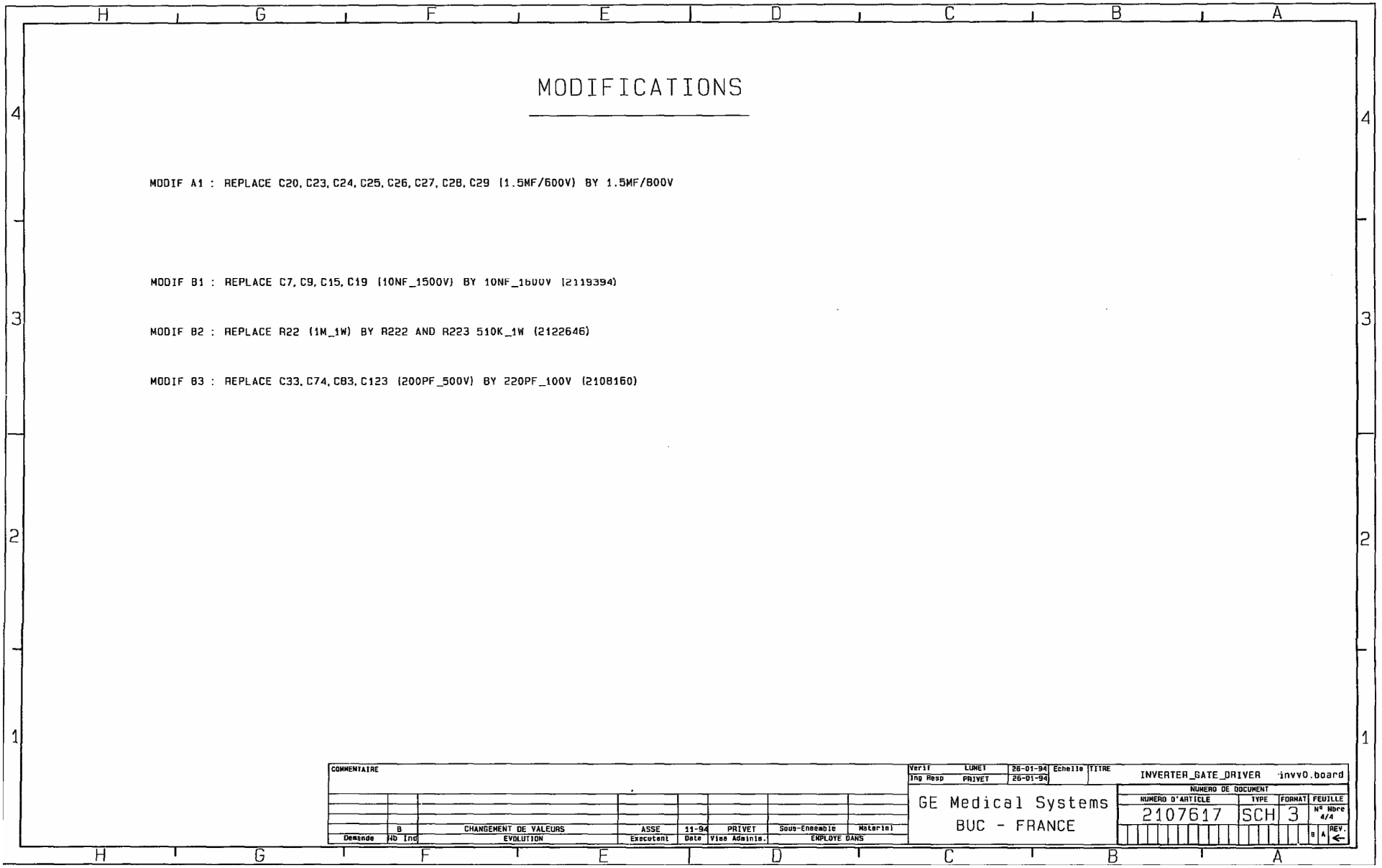


Figure 3-165 2107617, Sheet 4, Rev. B

5.5 Inverter Filter Board - 2118590

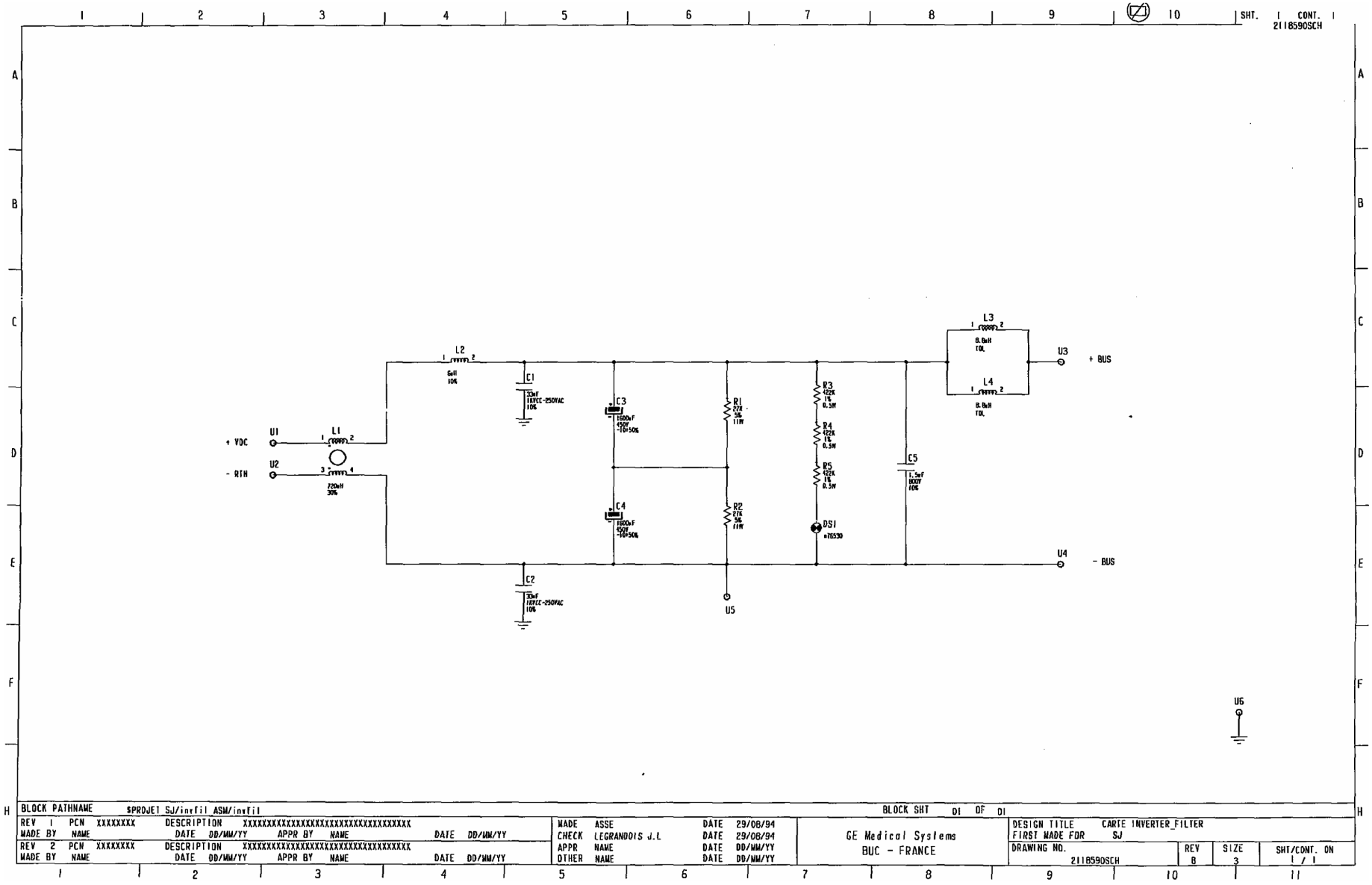


Figure 3-166 2118590, Sheet 1, Rev. B

5.6 Measurement Board - 2100553

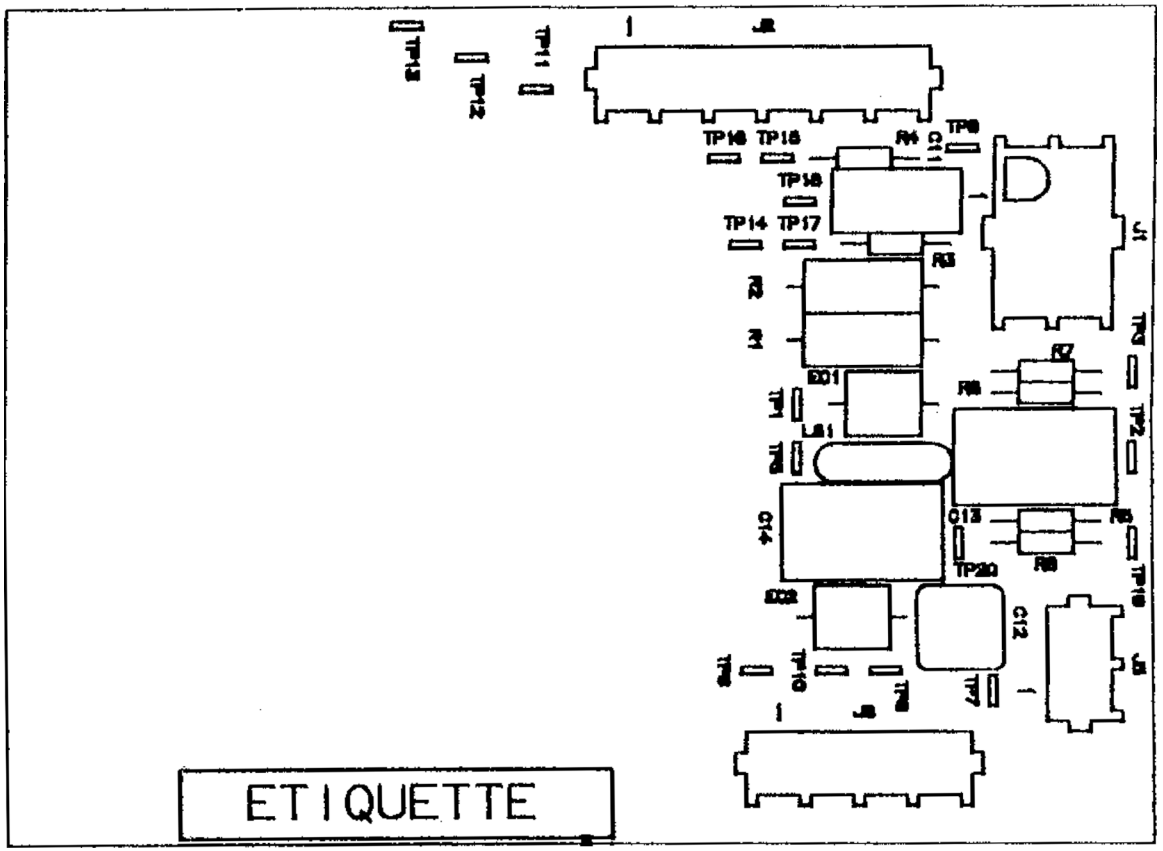


Figure 3-167 Measurement Board Layout (45554264 Rev 1)

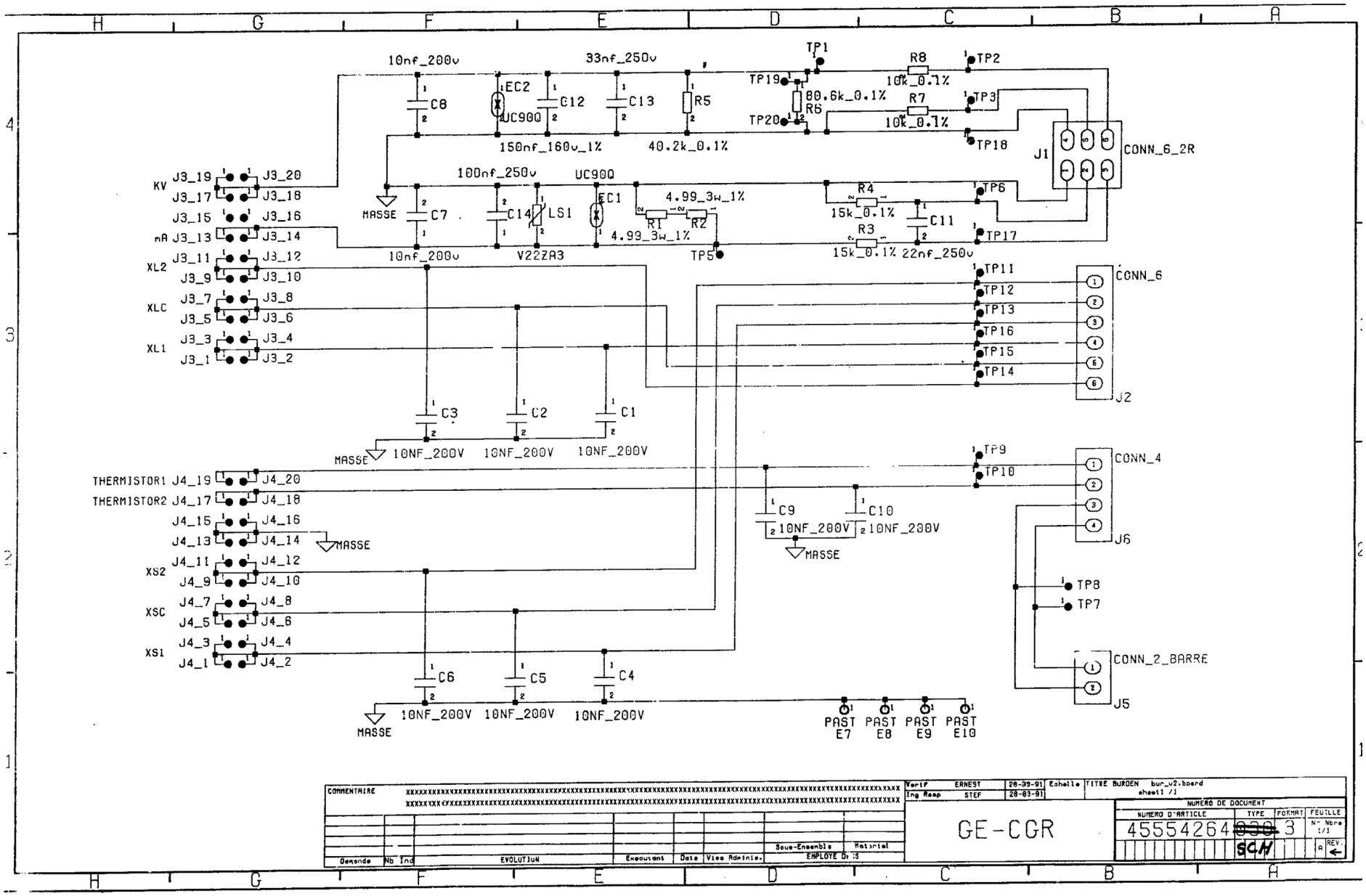


Figure 3-168 45554264, Sheet 1, Rev A

Section 6.0 — Collimator Control Bd (CCB) - 2159578

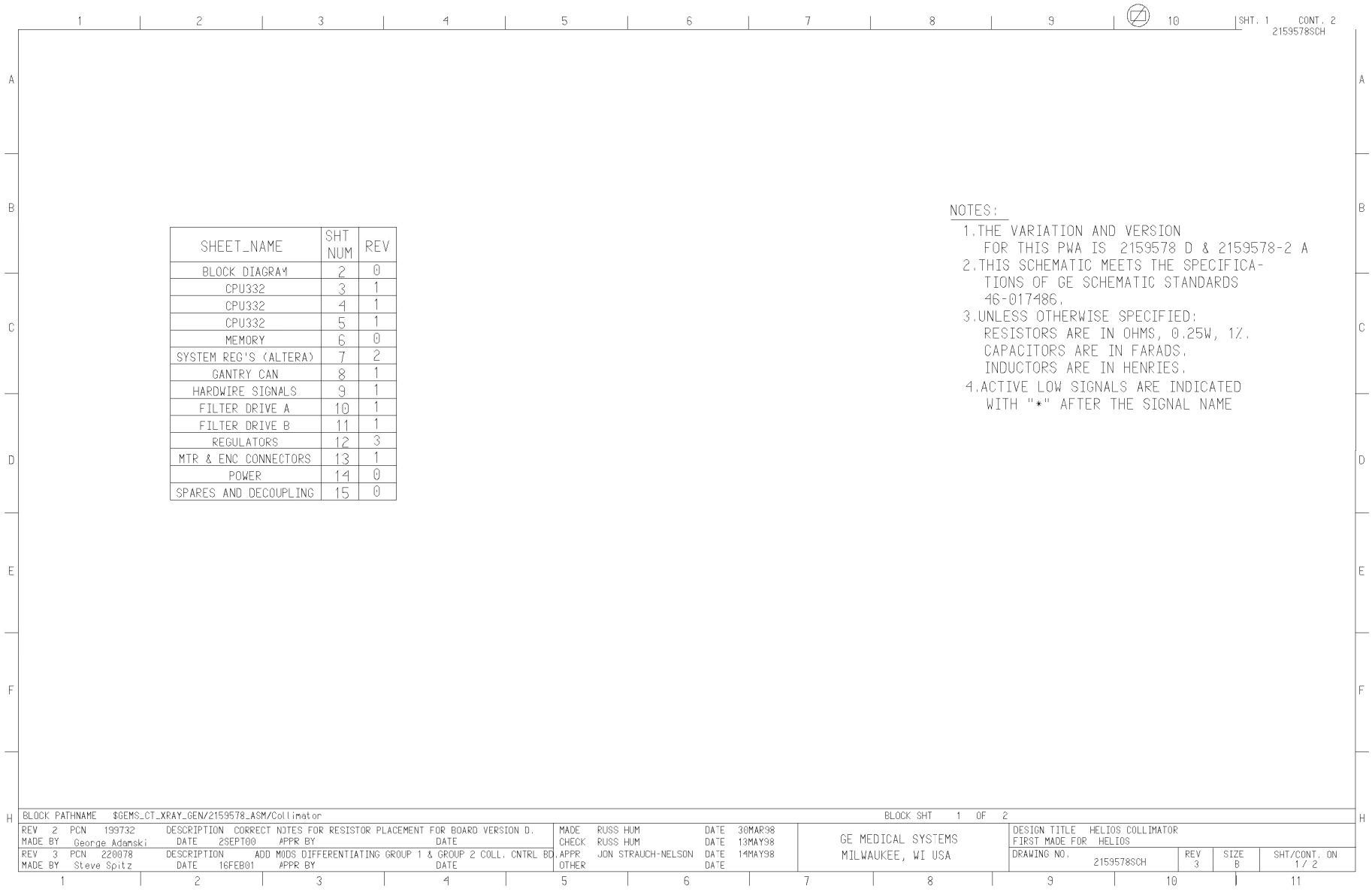


Figure 3-169 2159578, Sheet 1, Rev. 3

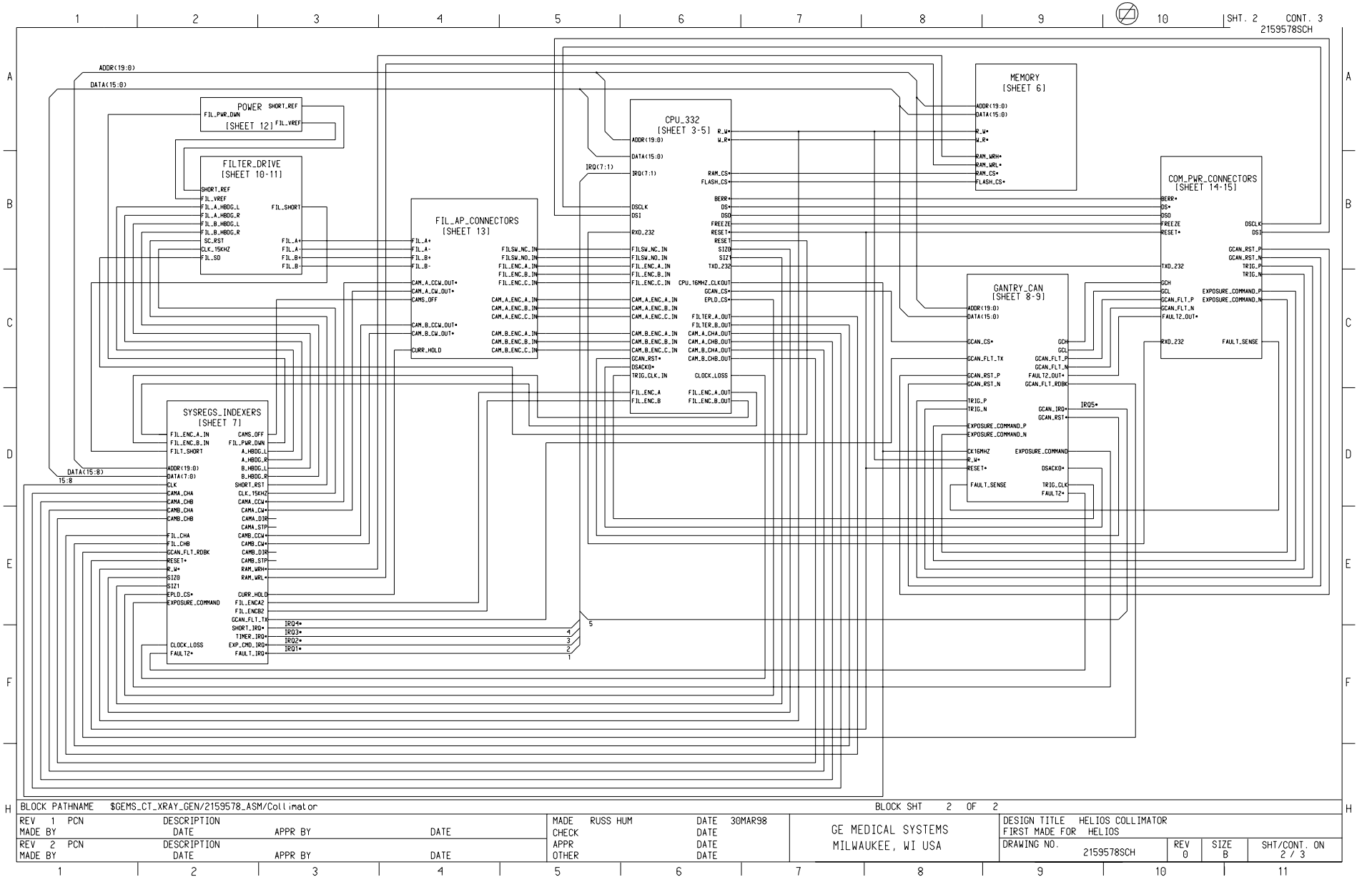


Figure 3-170 2159578, Sheet 2, Rev. 0

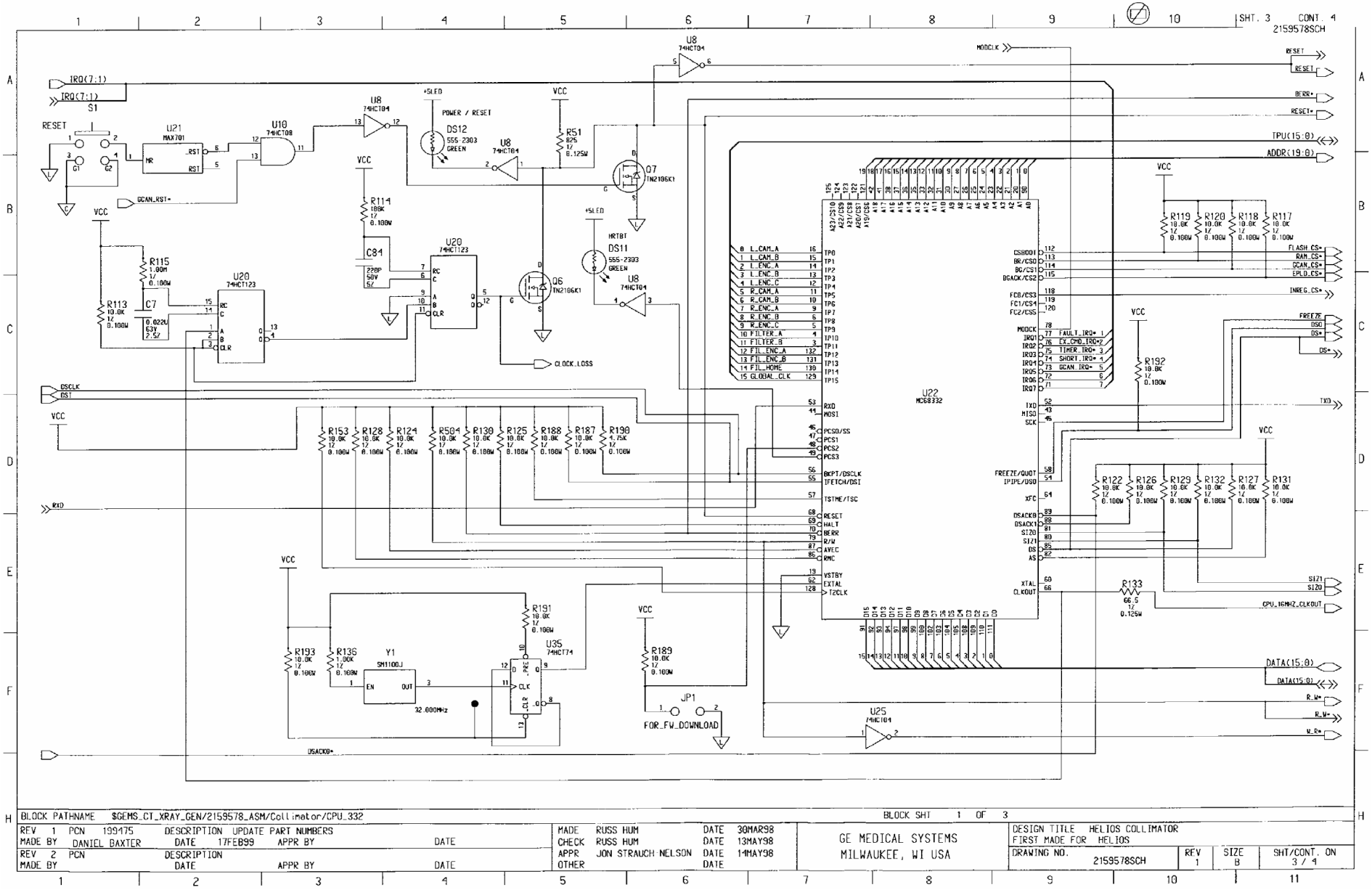


Figure 3-171 2159578, Sheet 3, Rev. 1

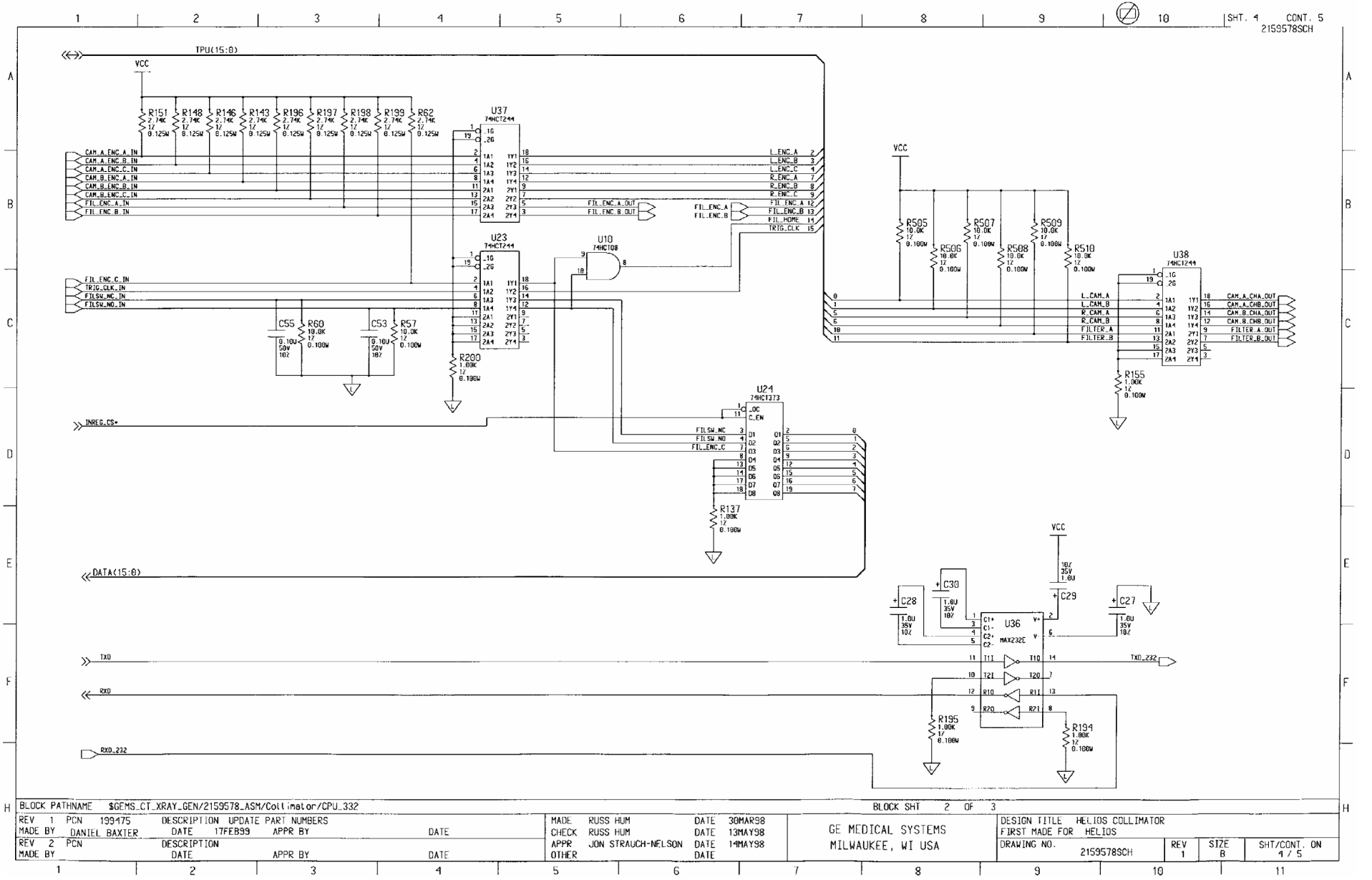


Figure 3-172 2159578, Sheet 4, Rev. 1

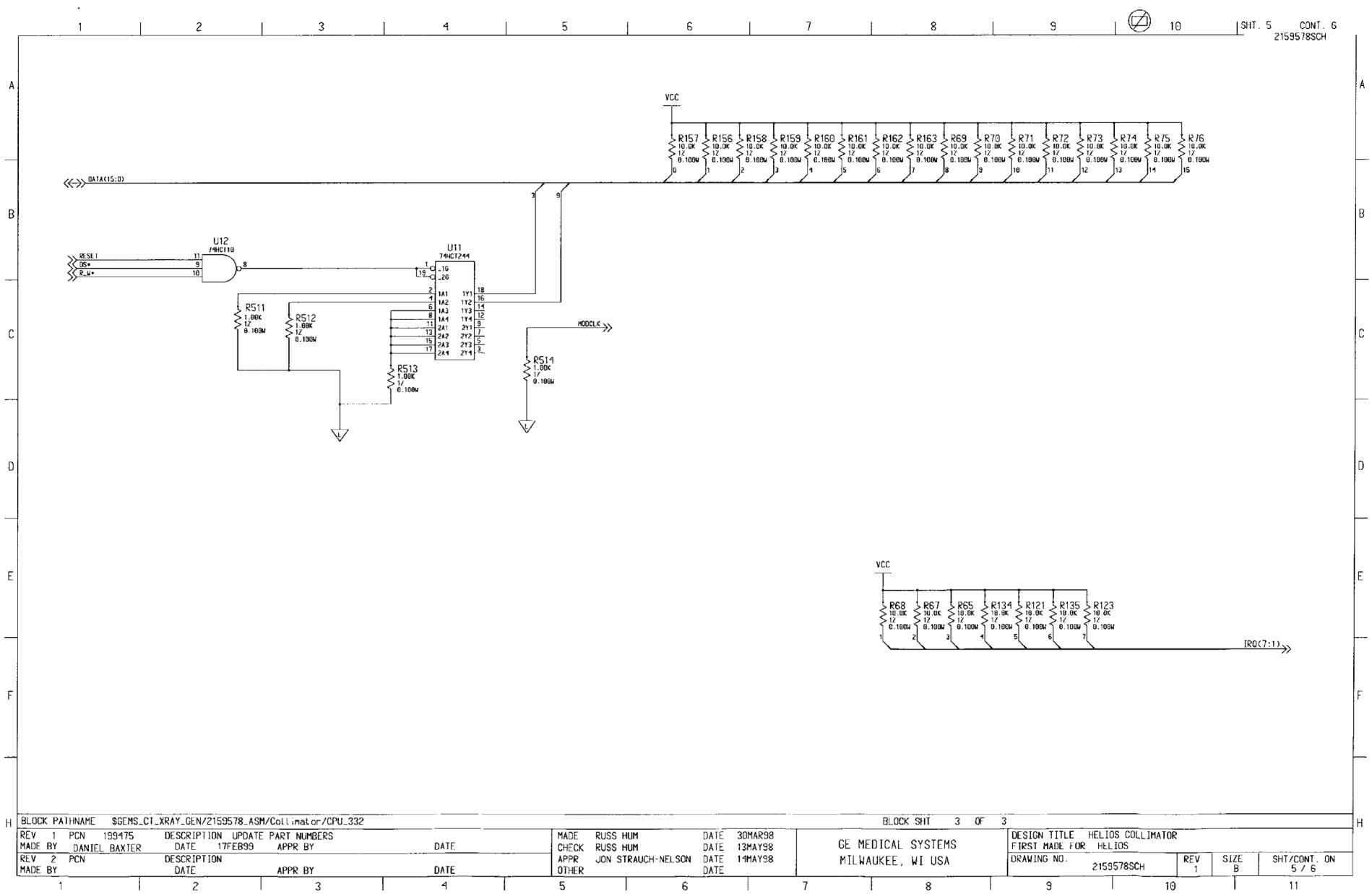


Figure 3-173 2159578, Sheet 5, Rev. 1

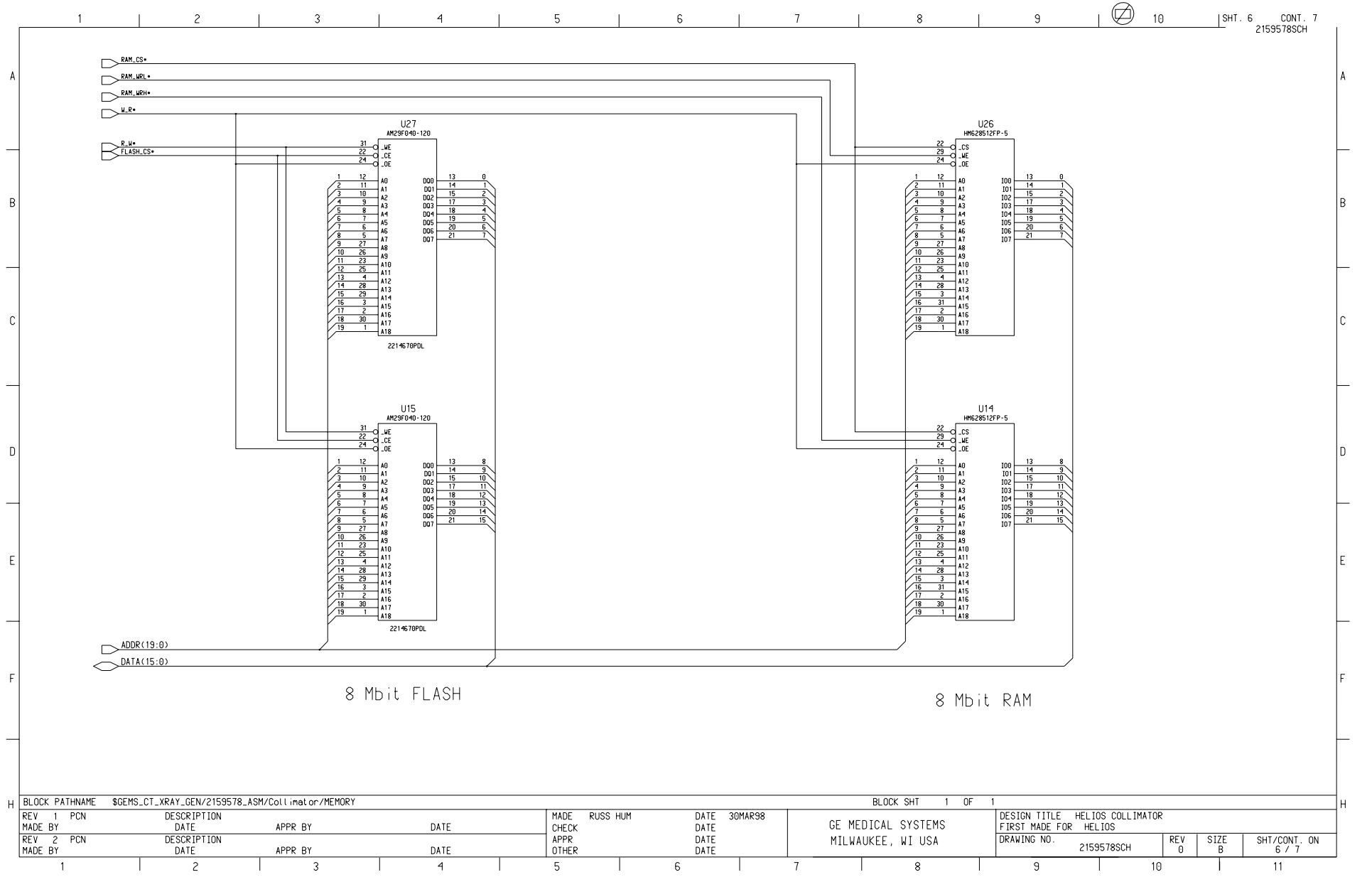


Figure 3-174 2159578 Sheet 6 Rev. 0

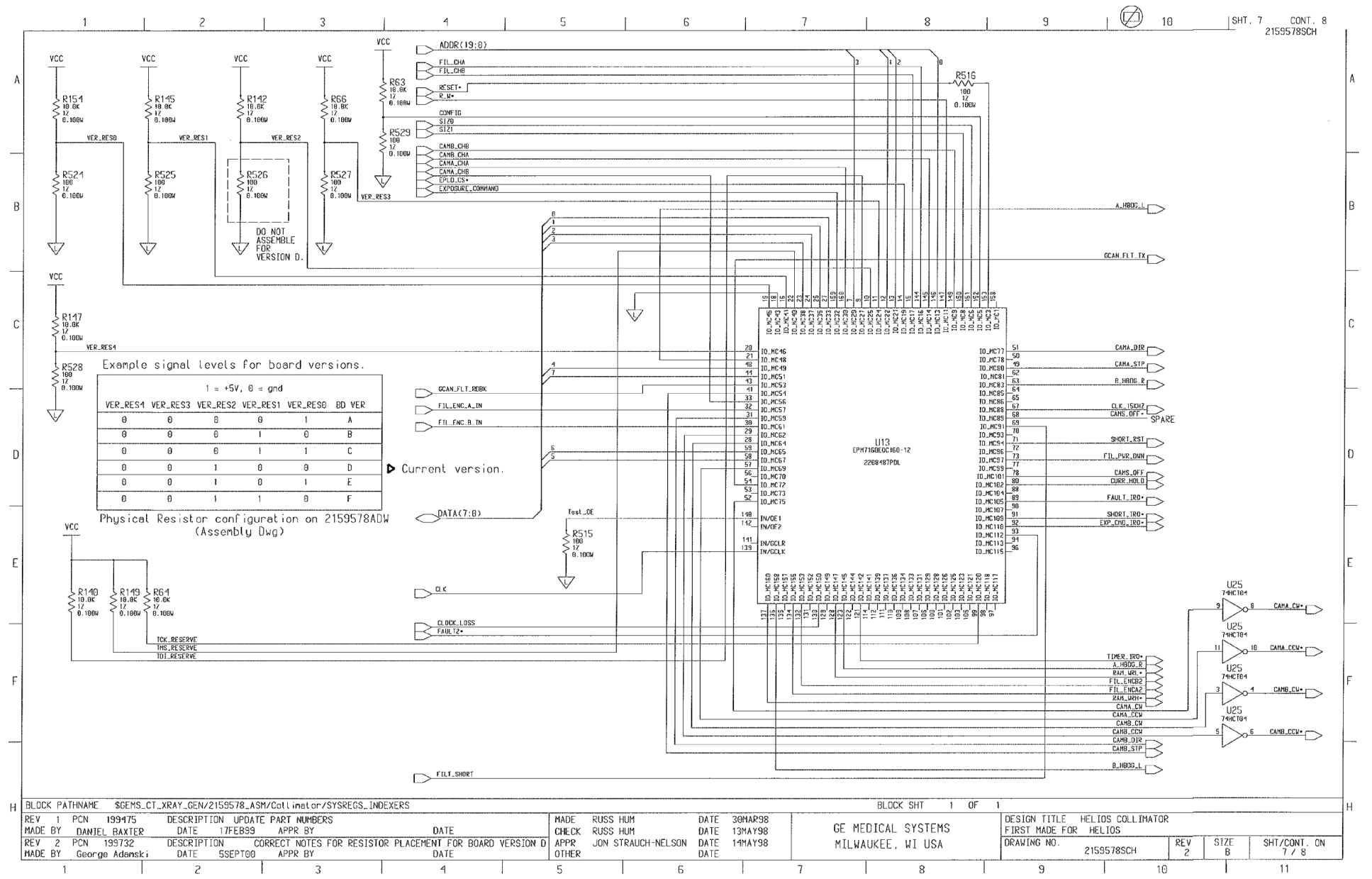


Figure 3-175 2159578, Sheet 7, Rev. 2

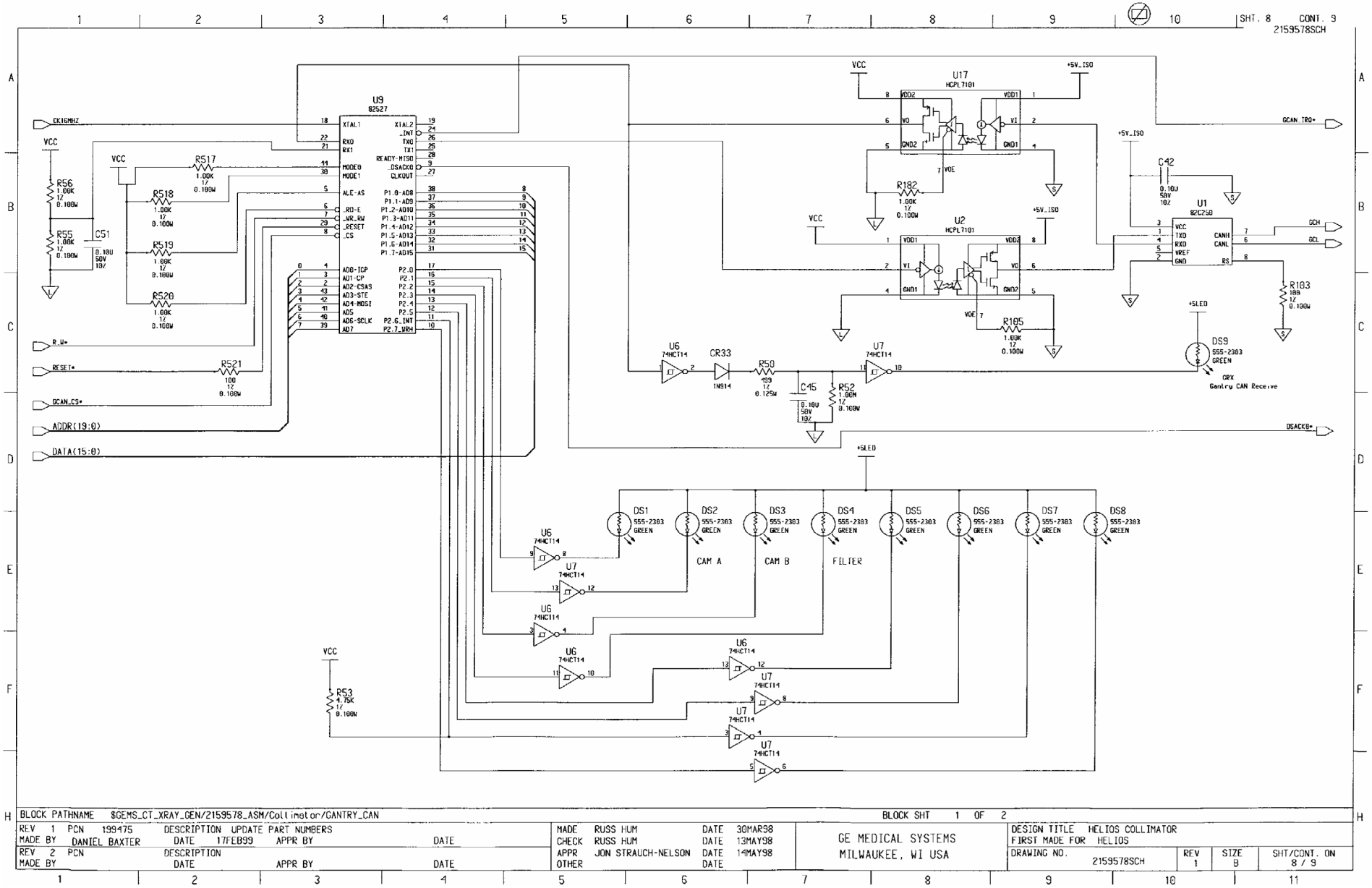


Figure 3-176 2159578, Sheet 8, Rev. 1

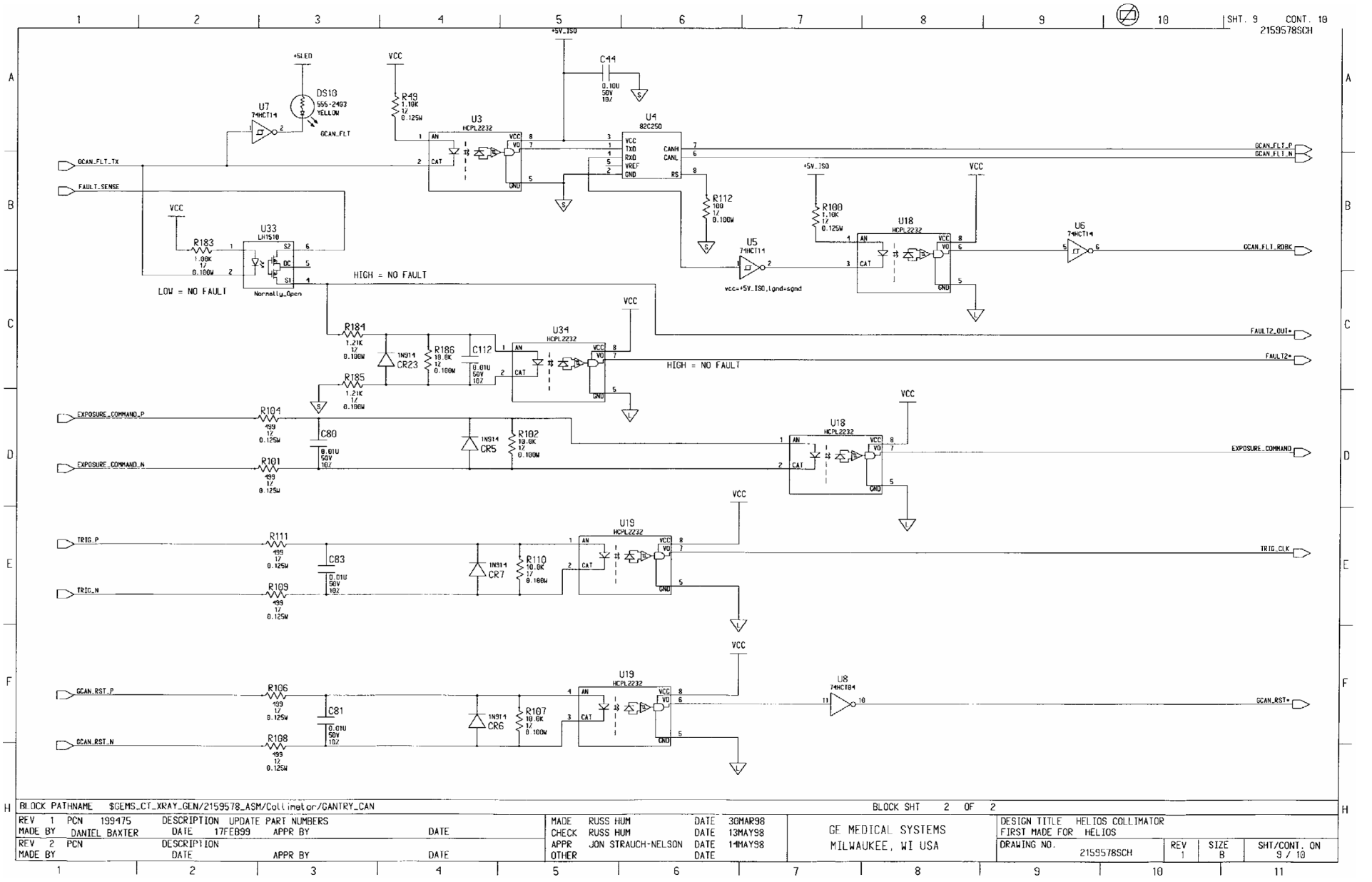


Figure 3-177 2159578, Sheet 9, Rev. 1

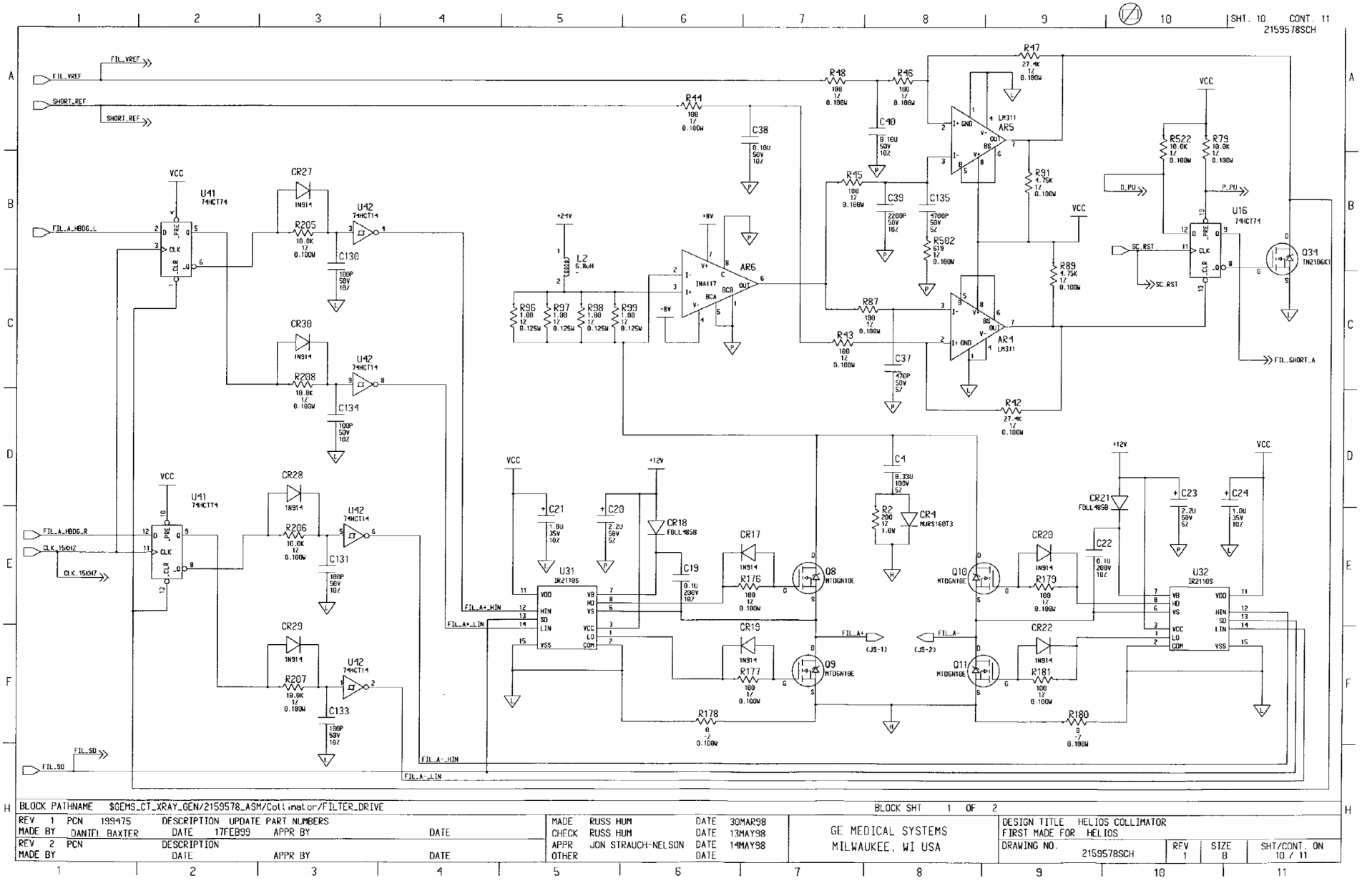


Figure 3-178 2159578, Sheet 10, Rev. 1

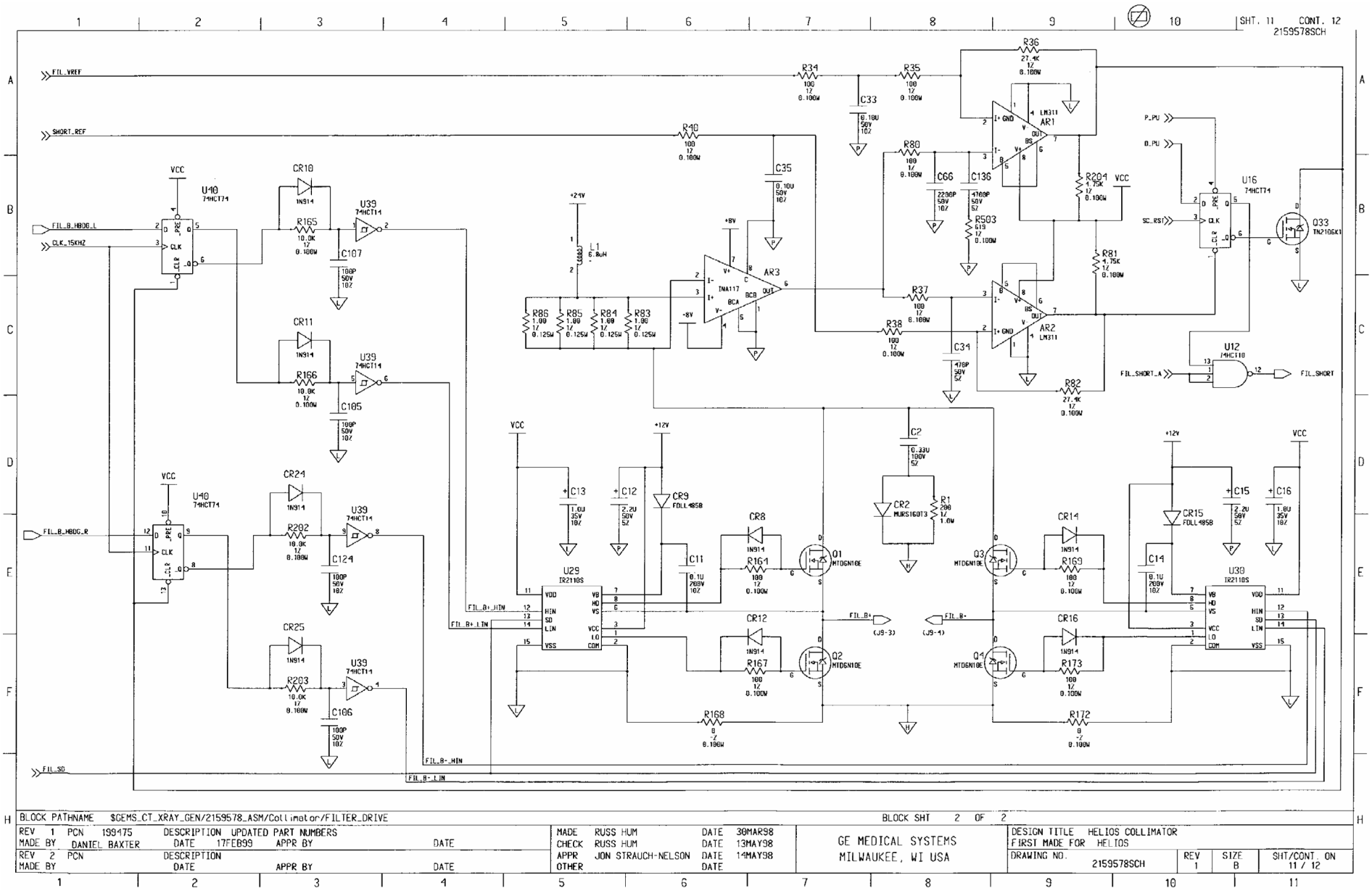


Figure 3-179 2159578, Sheet 11, Rev. 1

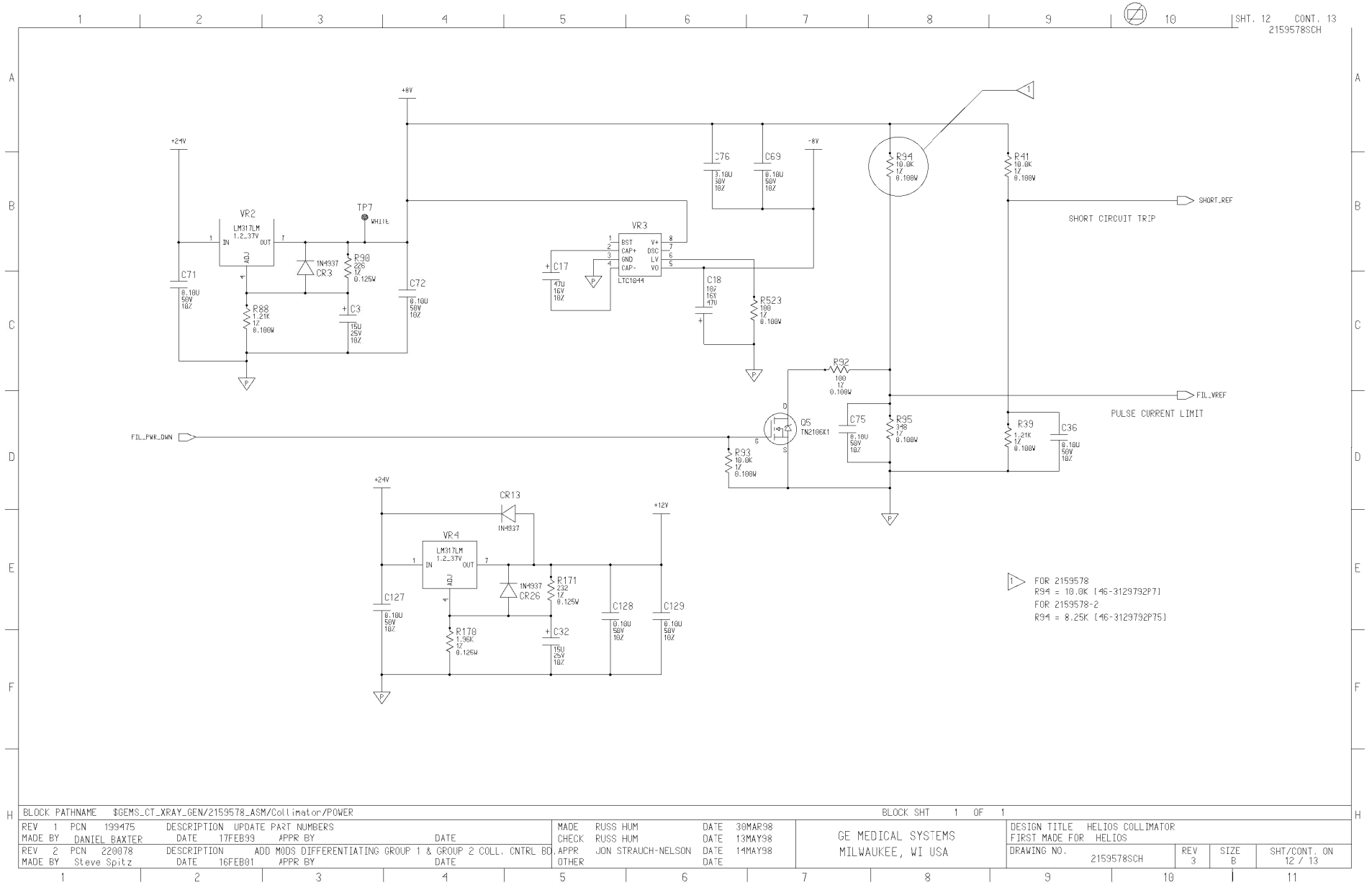


Figure 3-180 2159578, Sheet 12, Rev. 3

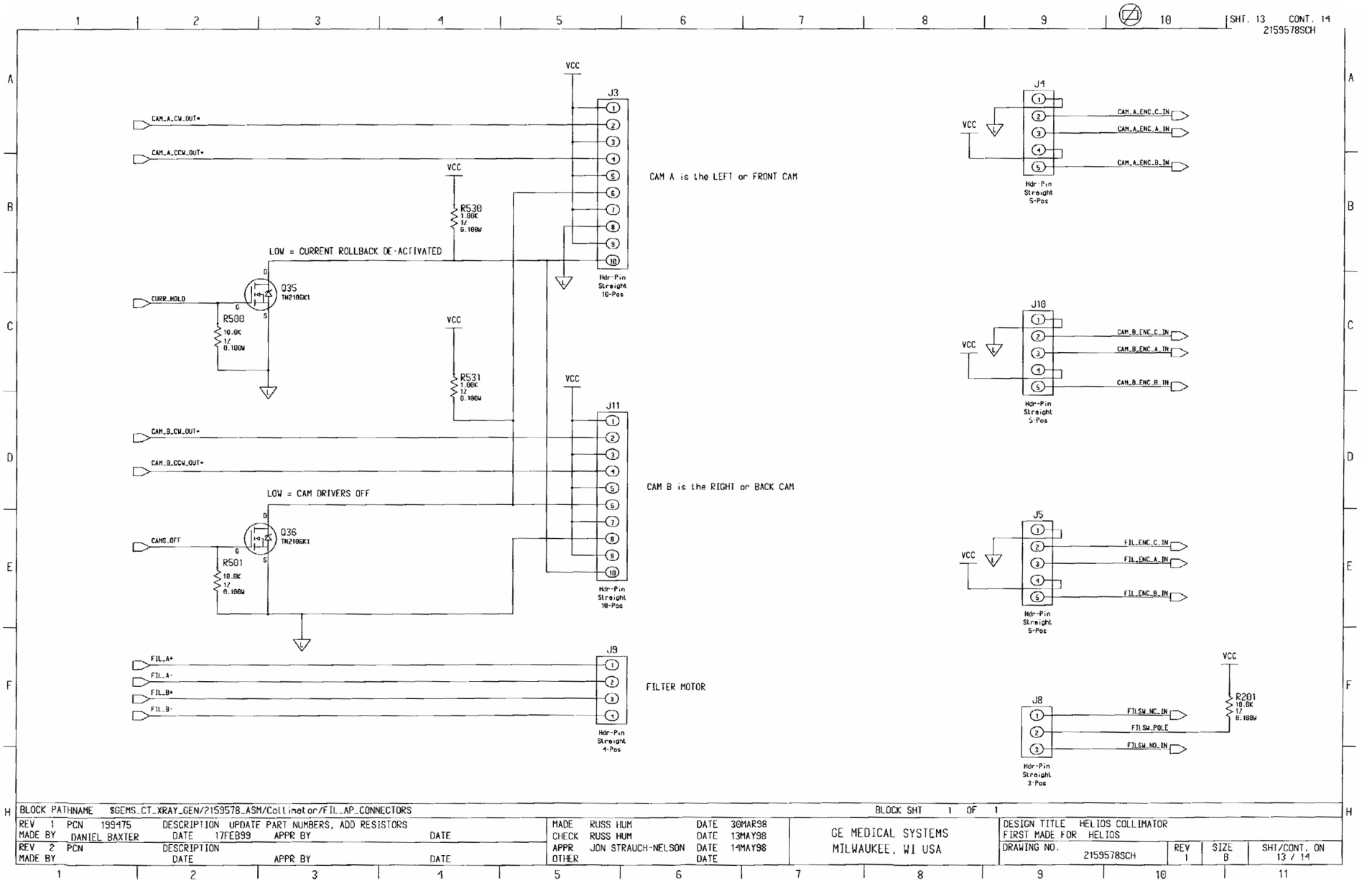


Figure 3-181 2159578, Sheet 13, Rev. 1

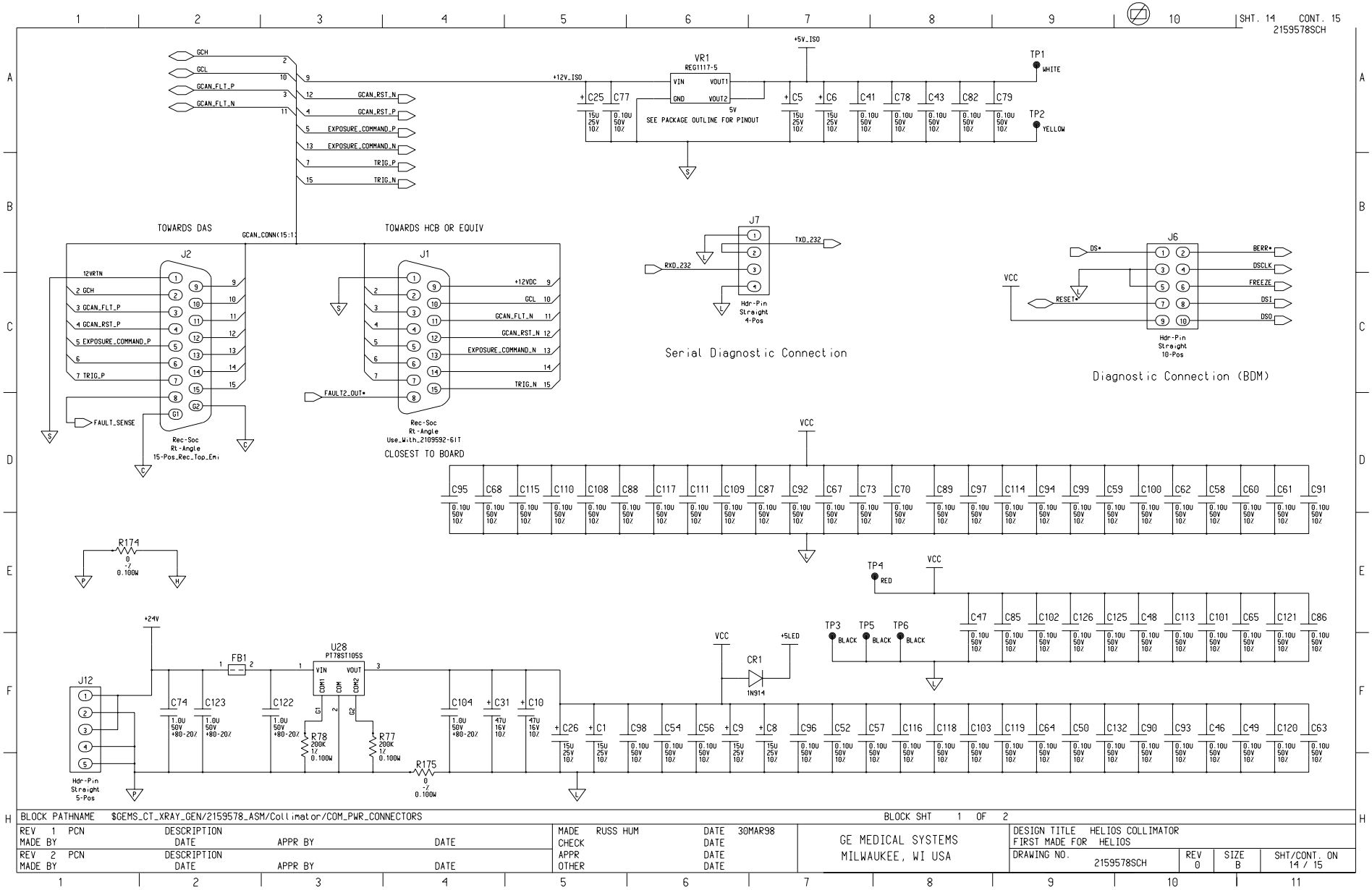


Figure 3-182 2159578 Sheet 14 Rev. 0

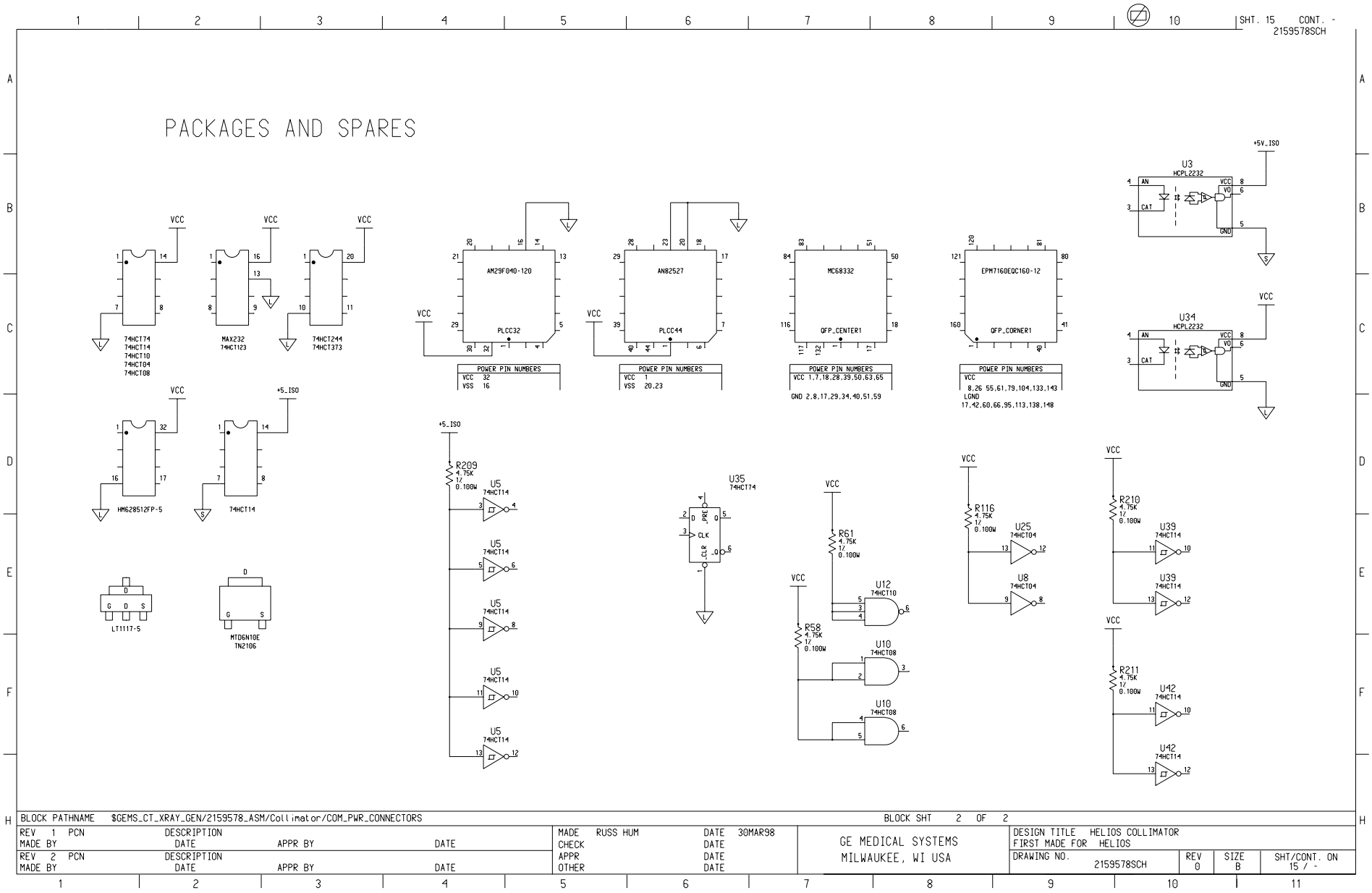


Figure 3-183 2159578 Sheet 15 Rev. 0

Chapter 4
Console

Section 1.0 — Subsystem Block Diagram - 2266832

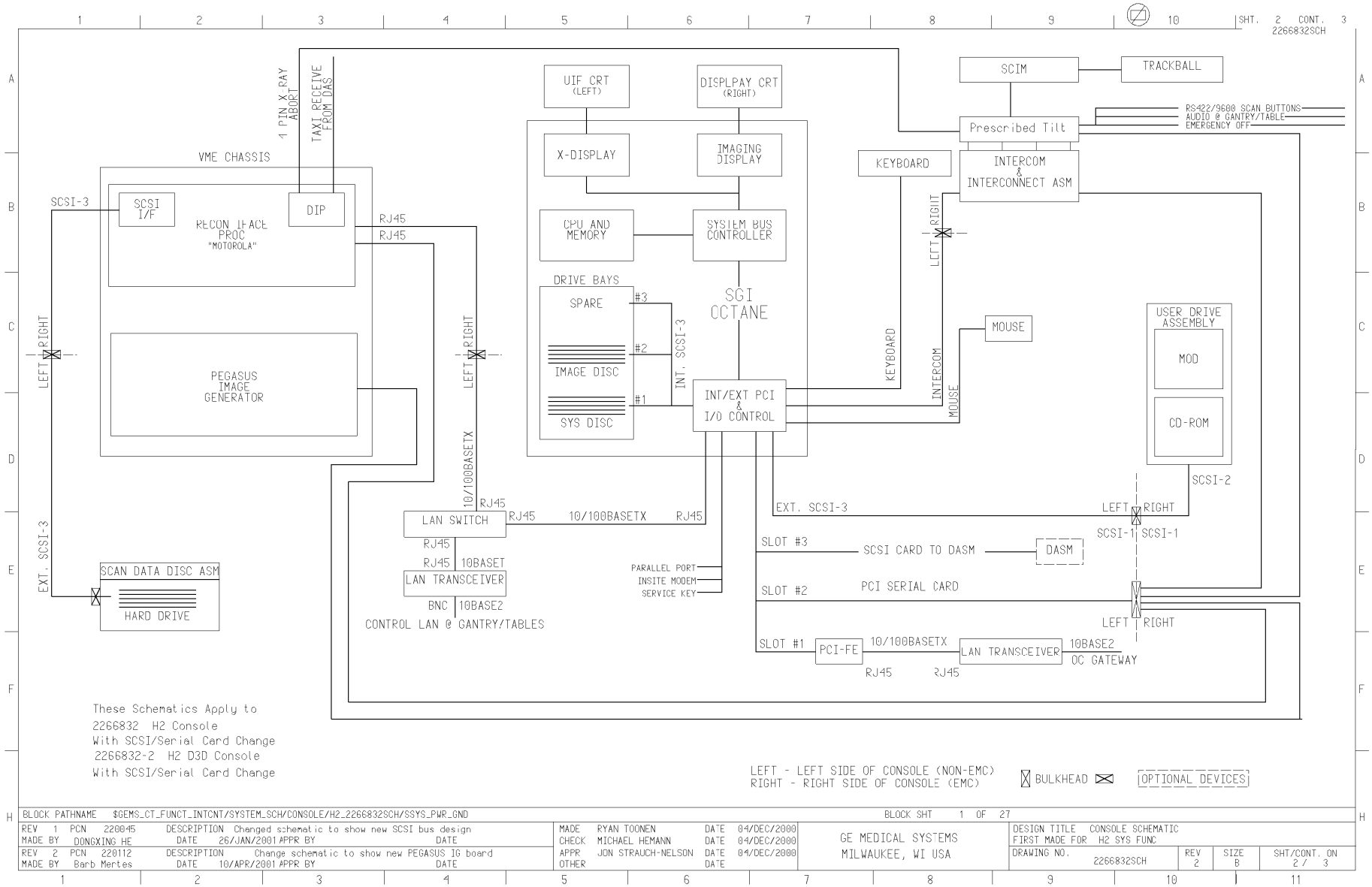


Figure 4-1 2266832 Block Diagram (sheet 2, rev 2)

Section 2.0 — Interconnects & Power/Gnd - 2266832

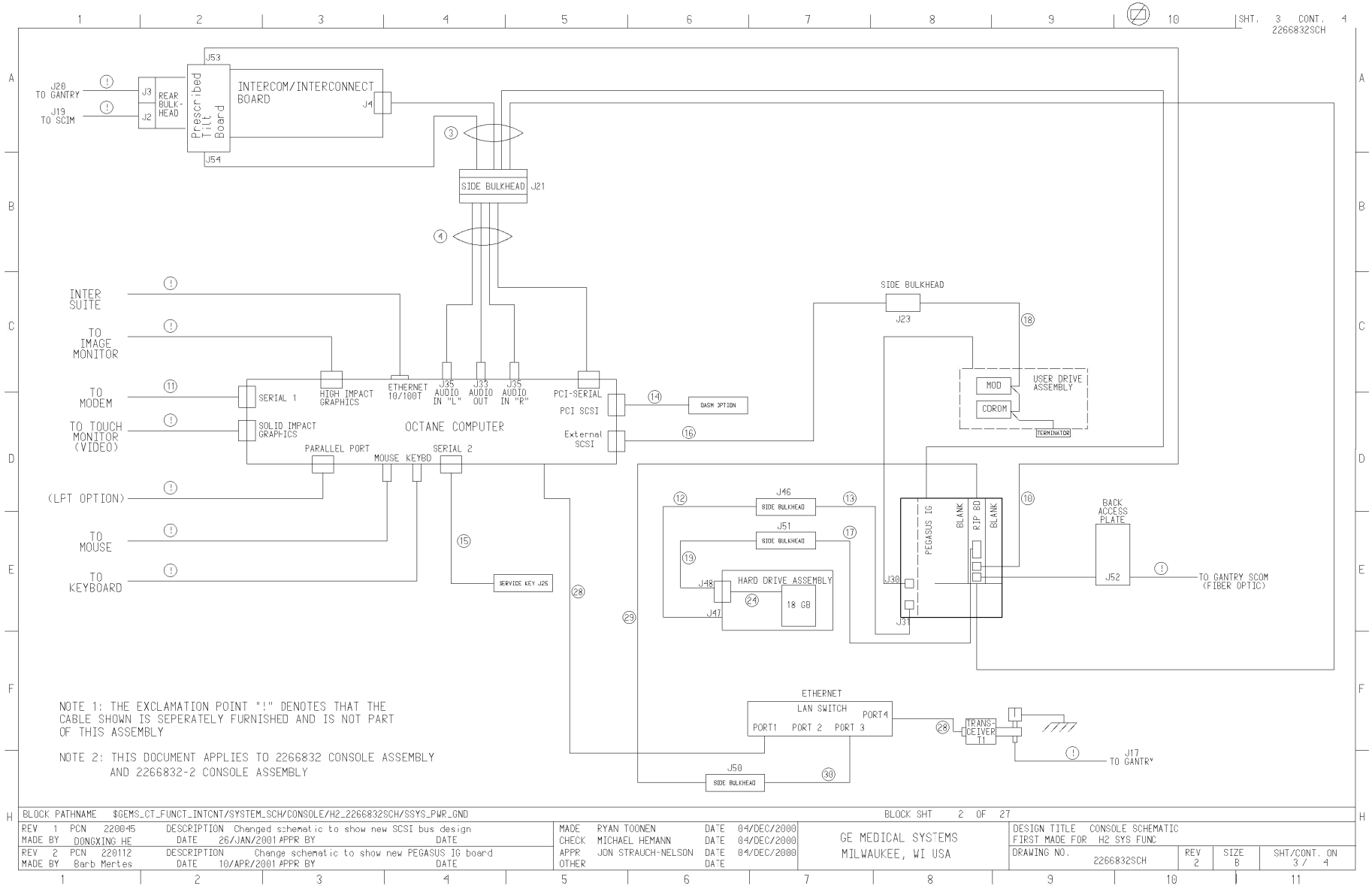


Figure 4-2 2266832, Sheet 3, Rev. 2

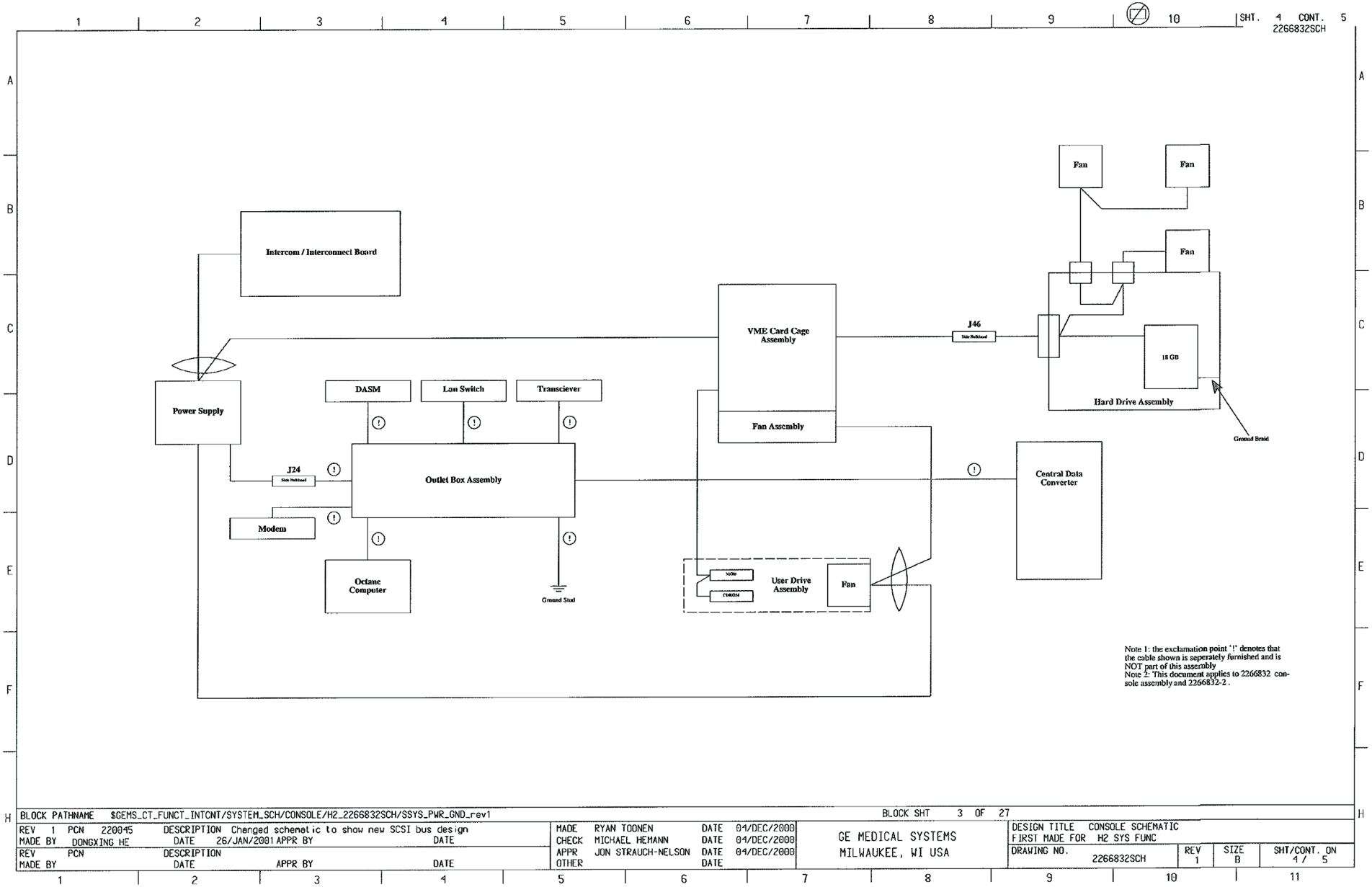


Figure 4-3 2266832, Sheet 4, Rev. 1

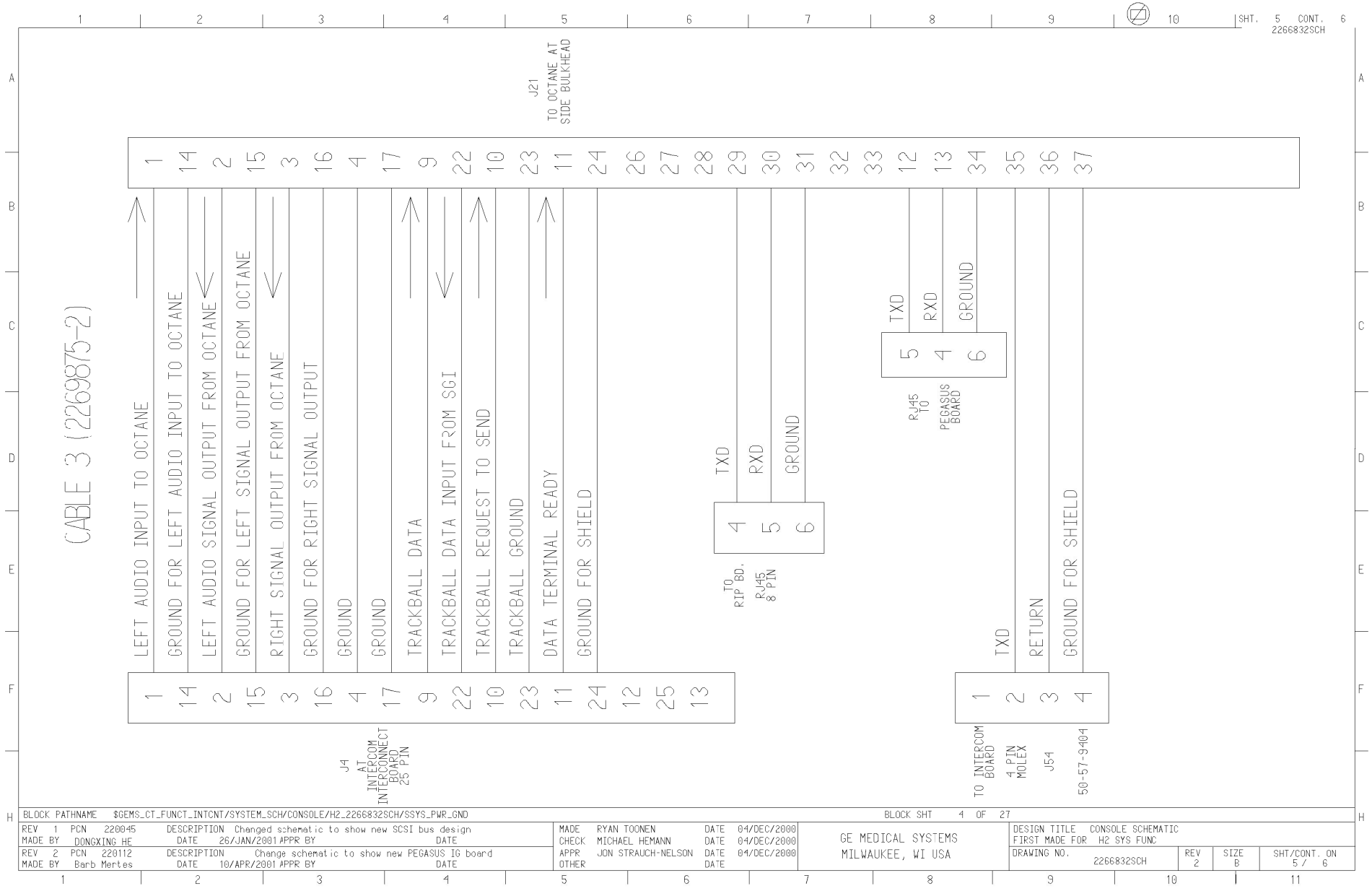


Figure 4-4 2266832, Sheet 5, Rev. 2

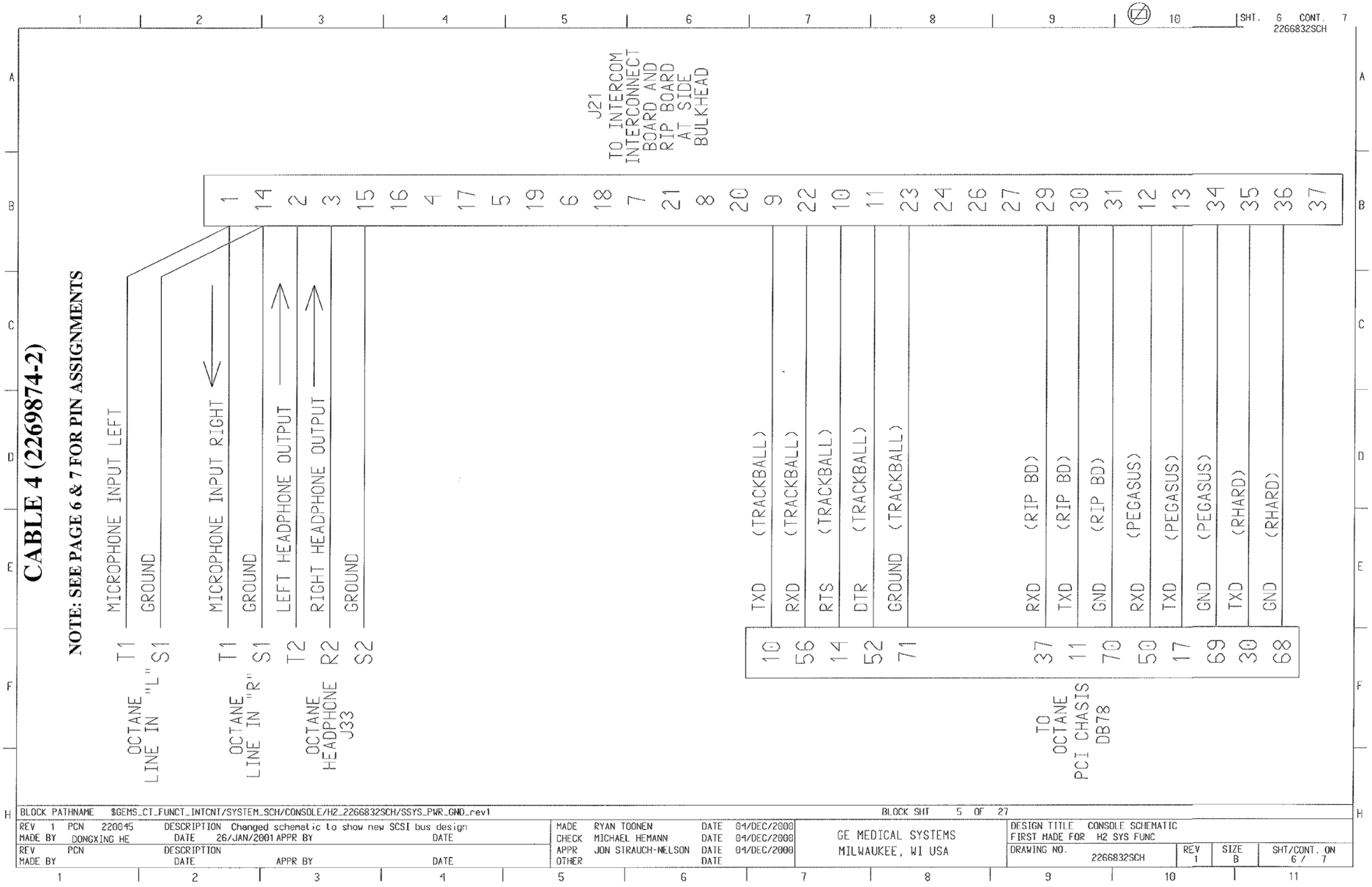


Figure 4-5 2266832, Sheet 6, Rev. 1

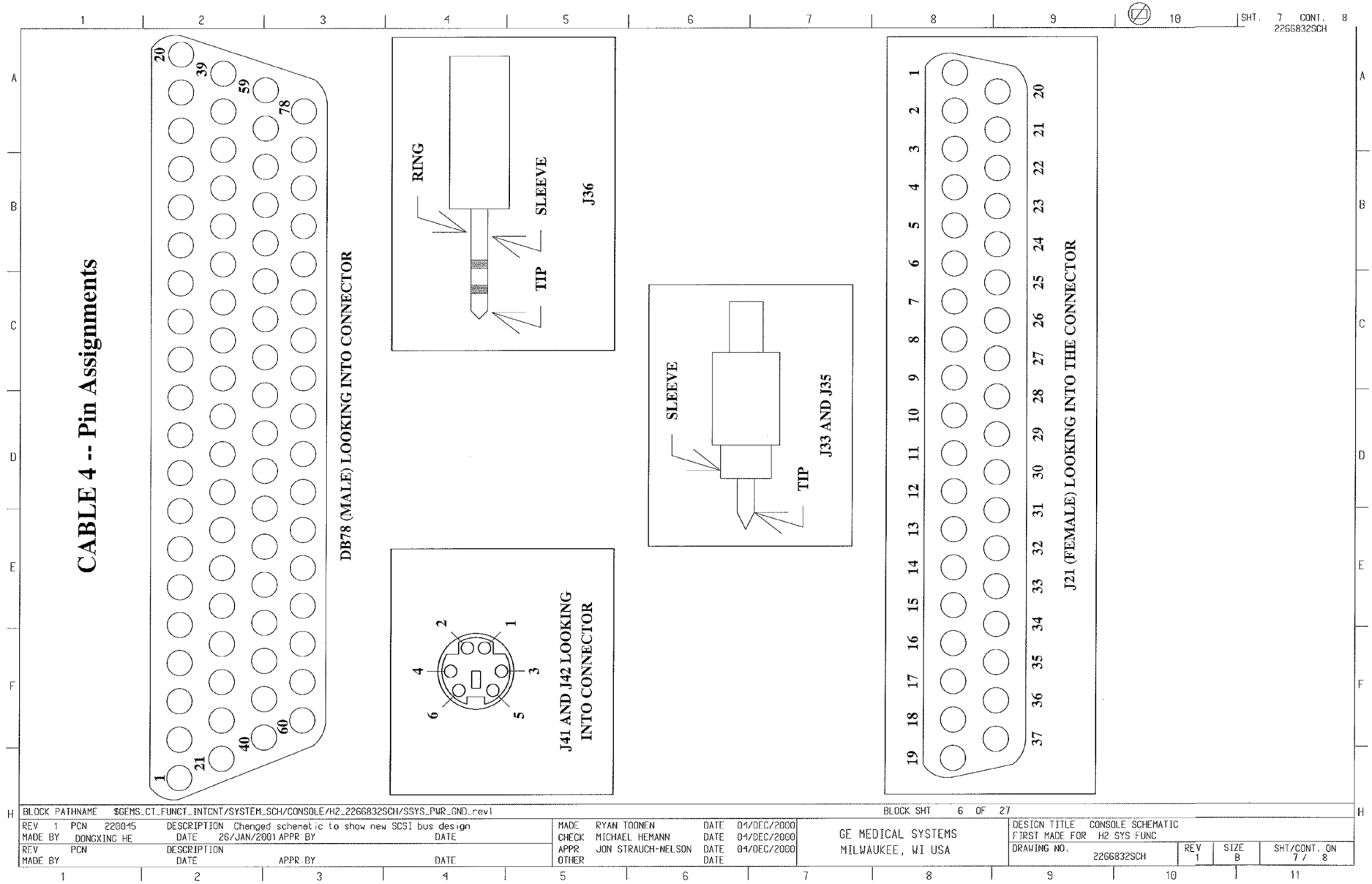


Figure 4-6 2266832, Sheet 7, Rev. 1

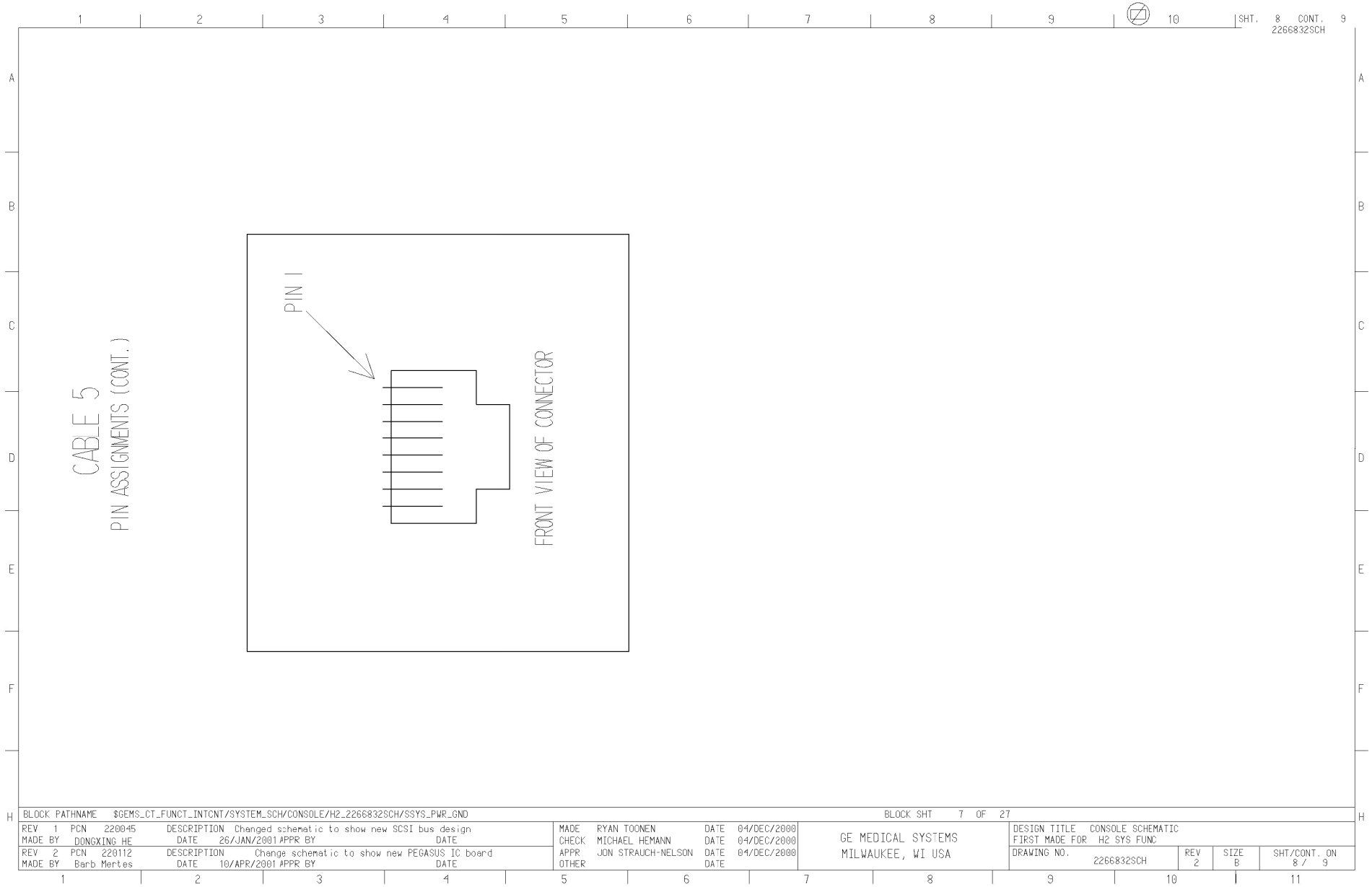


Figure 4-7 2266832, Sheet 8, Rev. 2

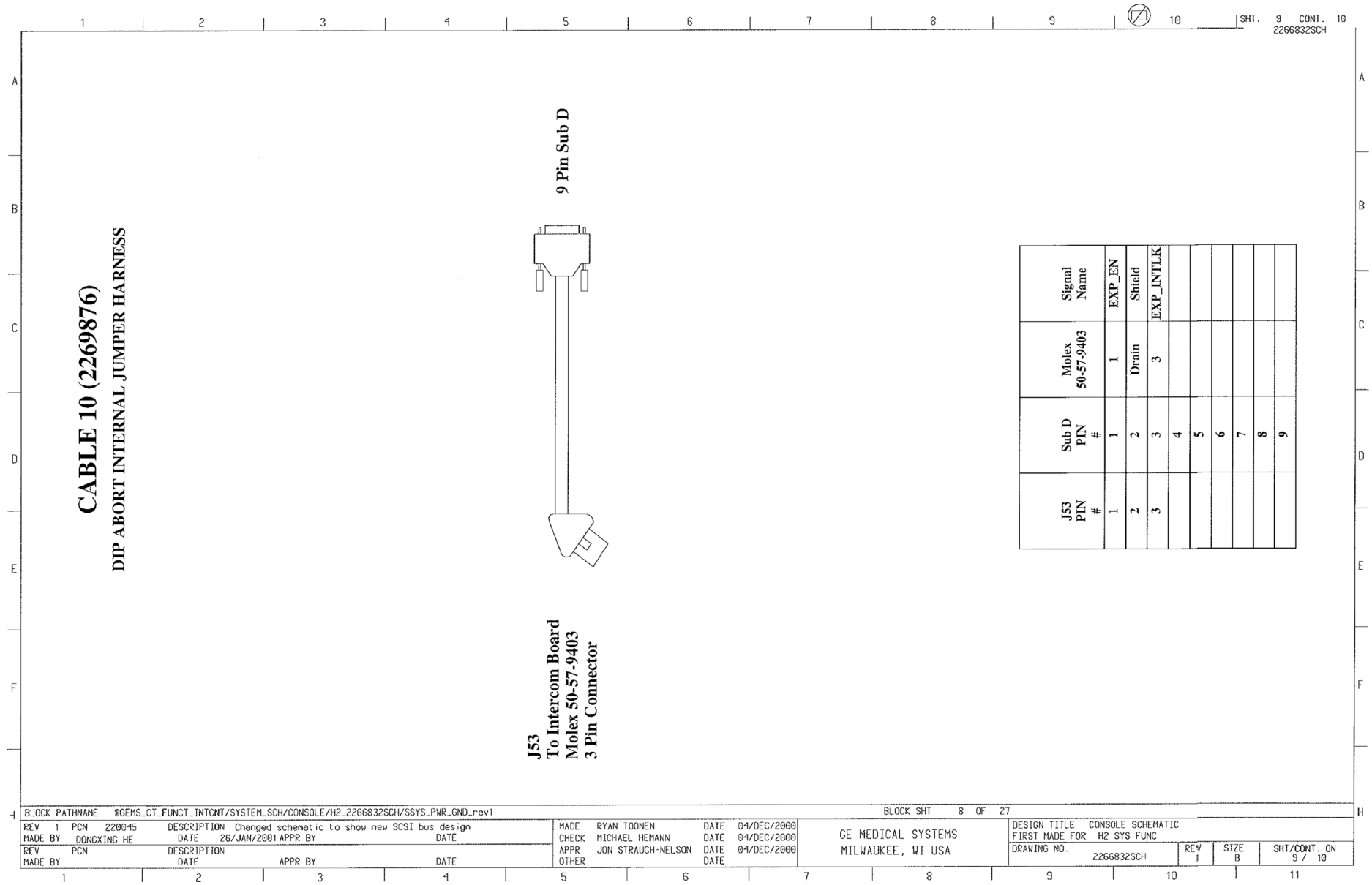


Figure 4-8 2266832, Sheet 9, Rev. 1

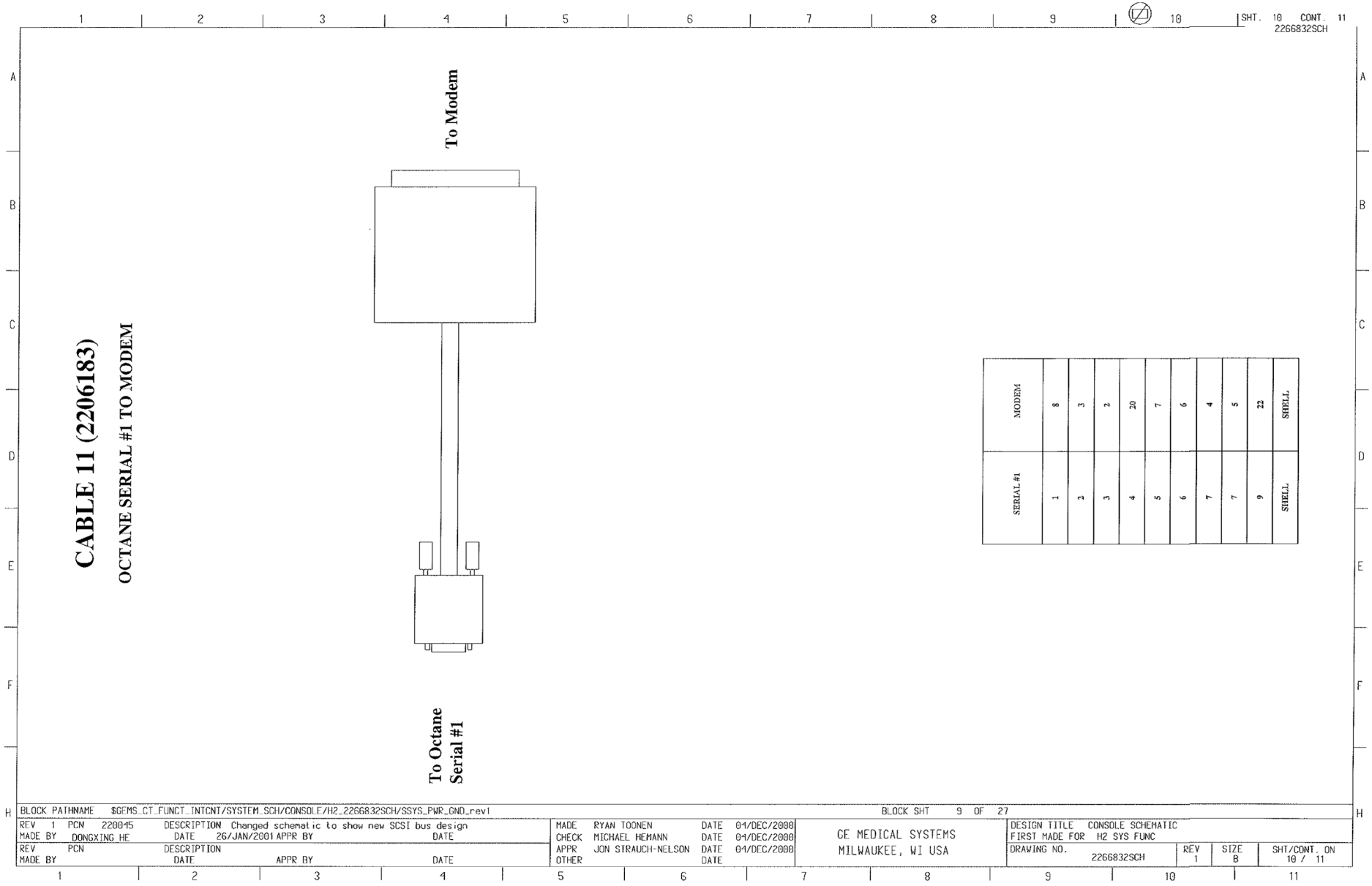


Figure 4-9 2266832, Sheet 10, Rev. 1

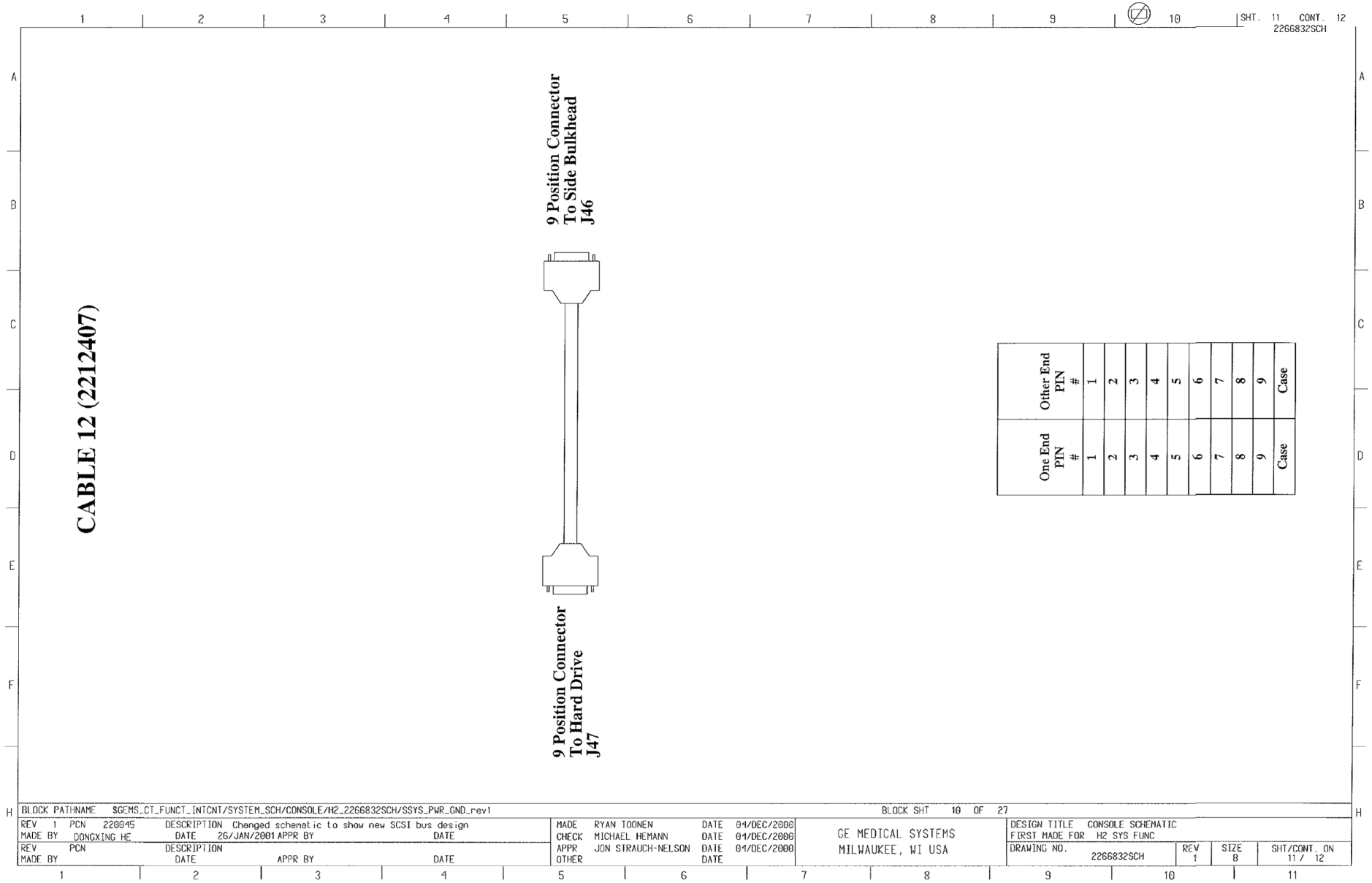


Figure 4-10 2266832, Sheet 11, Rev. 1

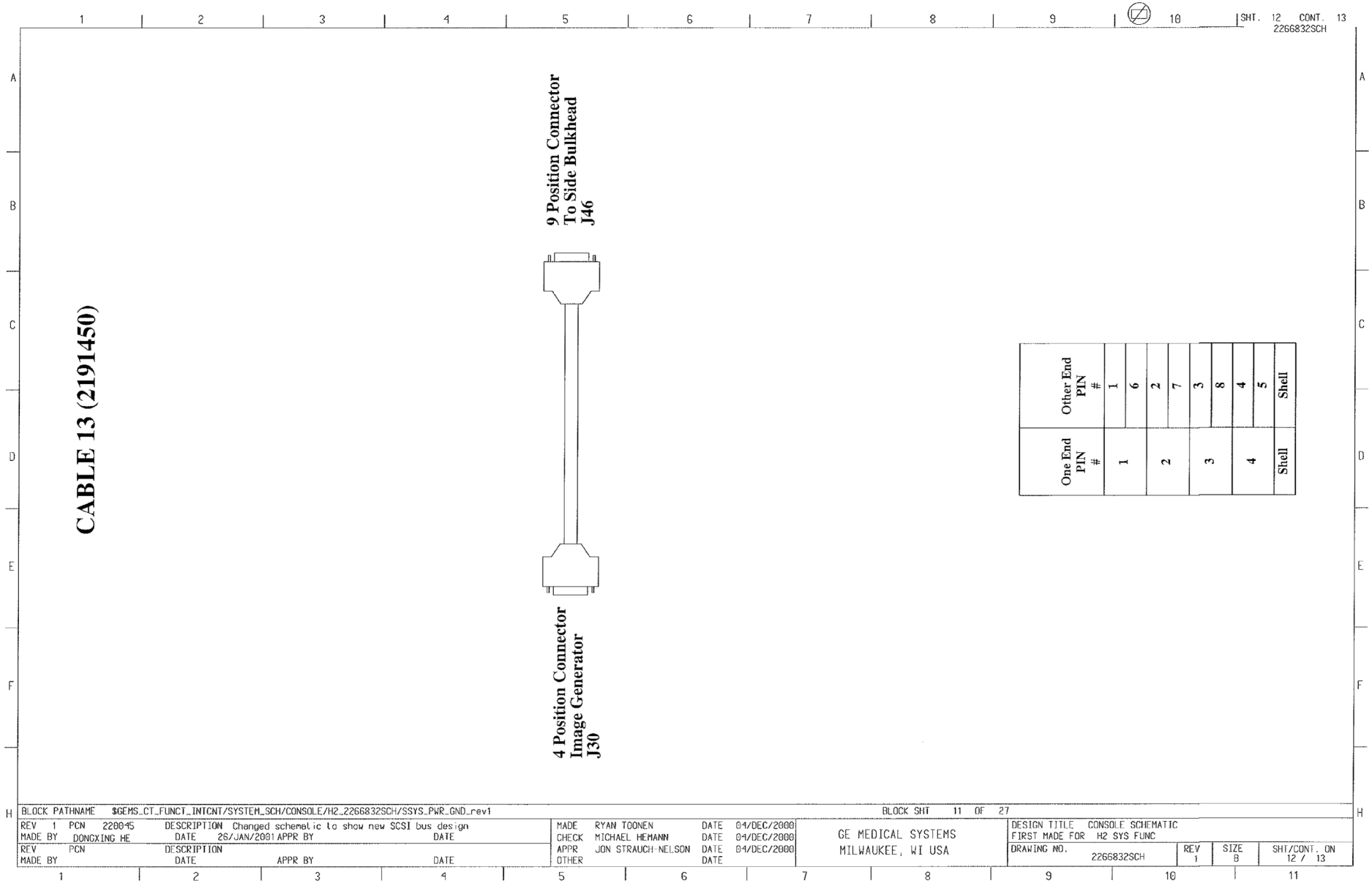


Figure 4-11 2266832, Sheet 12, Rev. 1

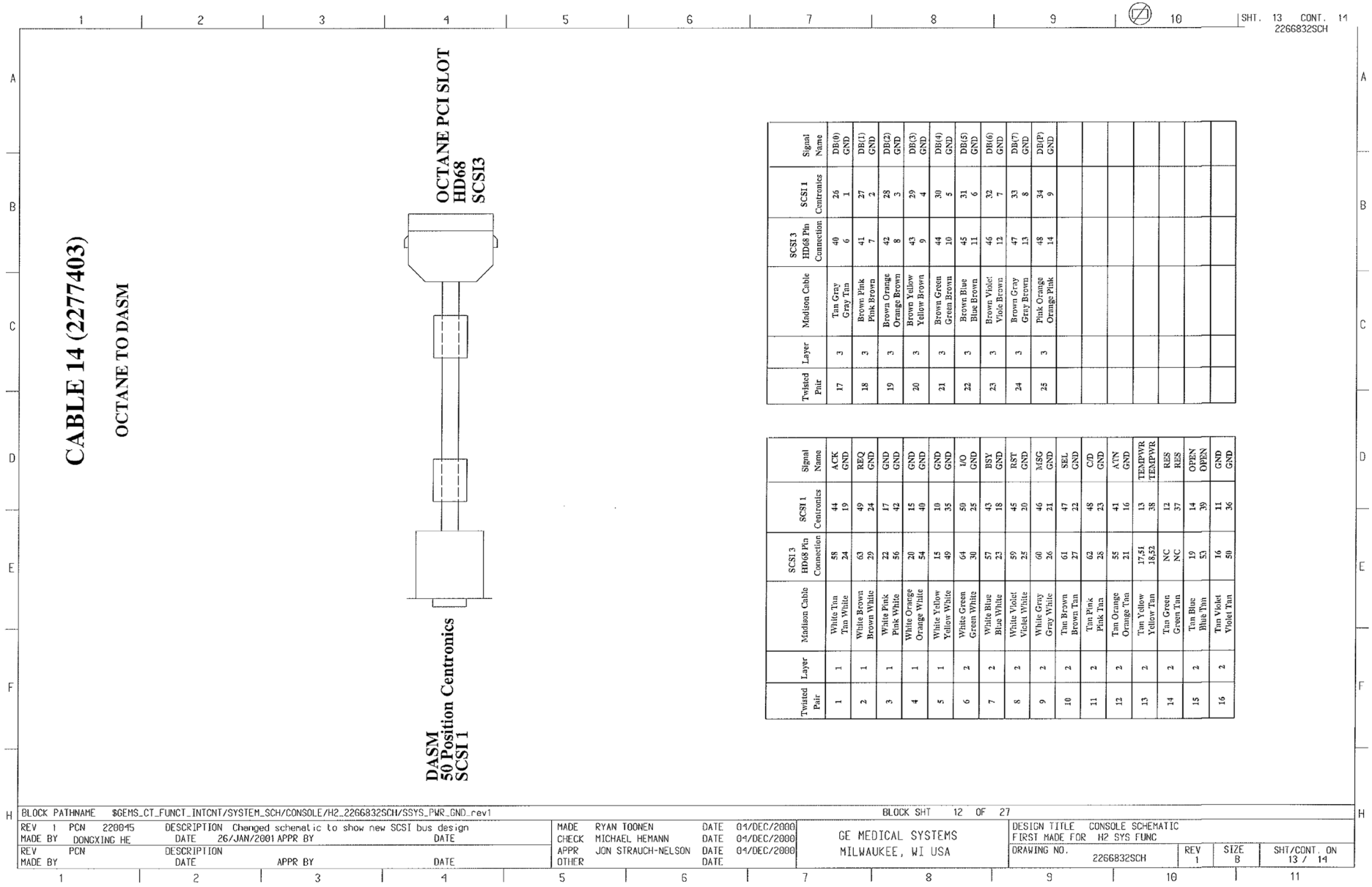


Figure 4-12 2266832, Sheet 13, Rev. 1

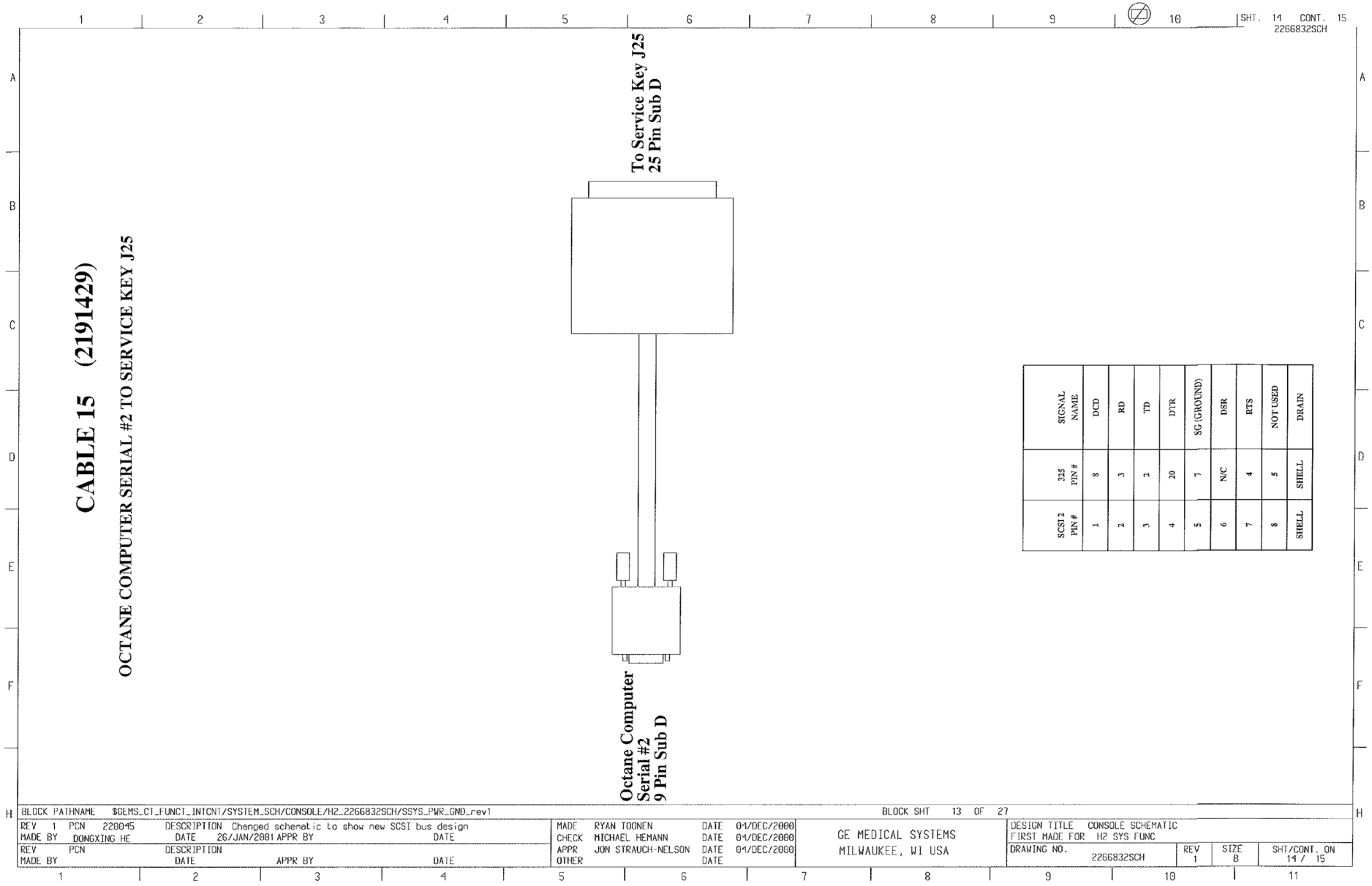


Figure 4-13 2266832, Sheet 14, Rev. 1

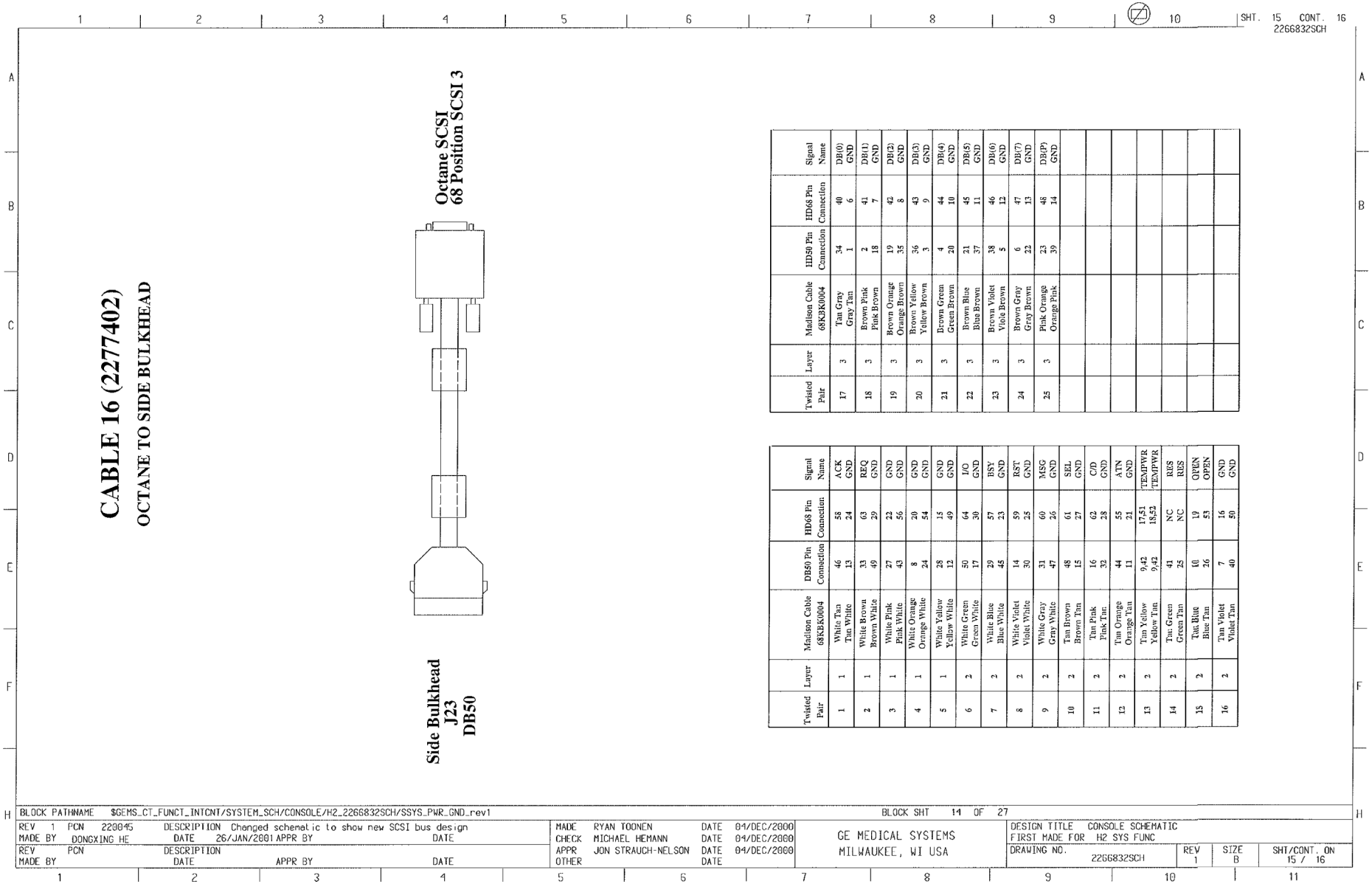


Figure 4-14 2266832, Sheet 15, Rev. 1

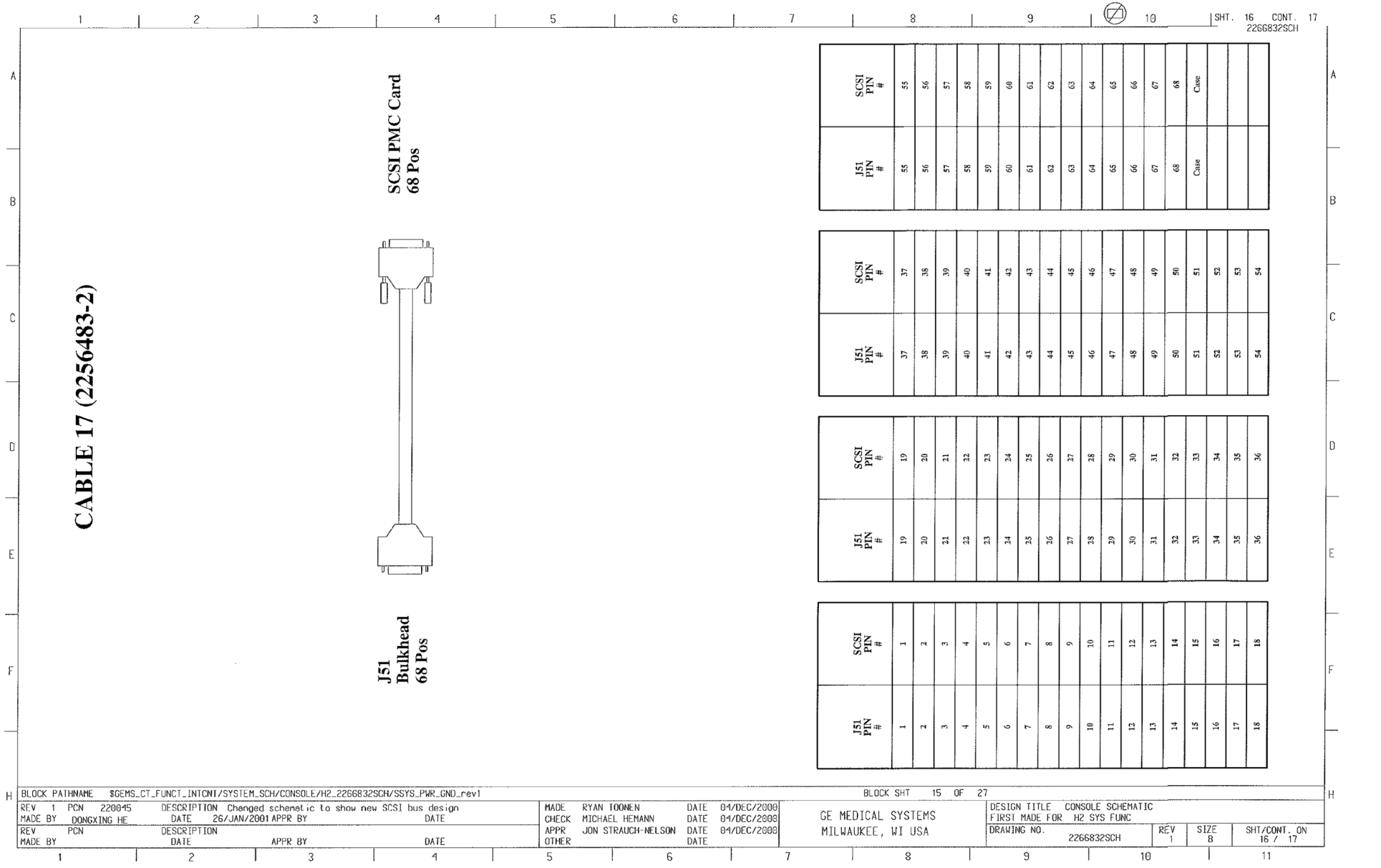


Figure 4-15 2266832, Sheet 16, Rev. 1

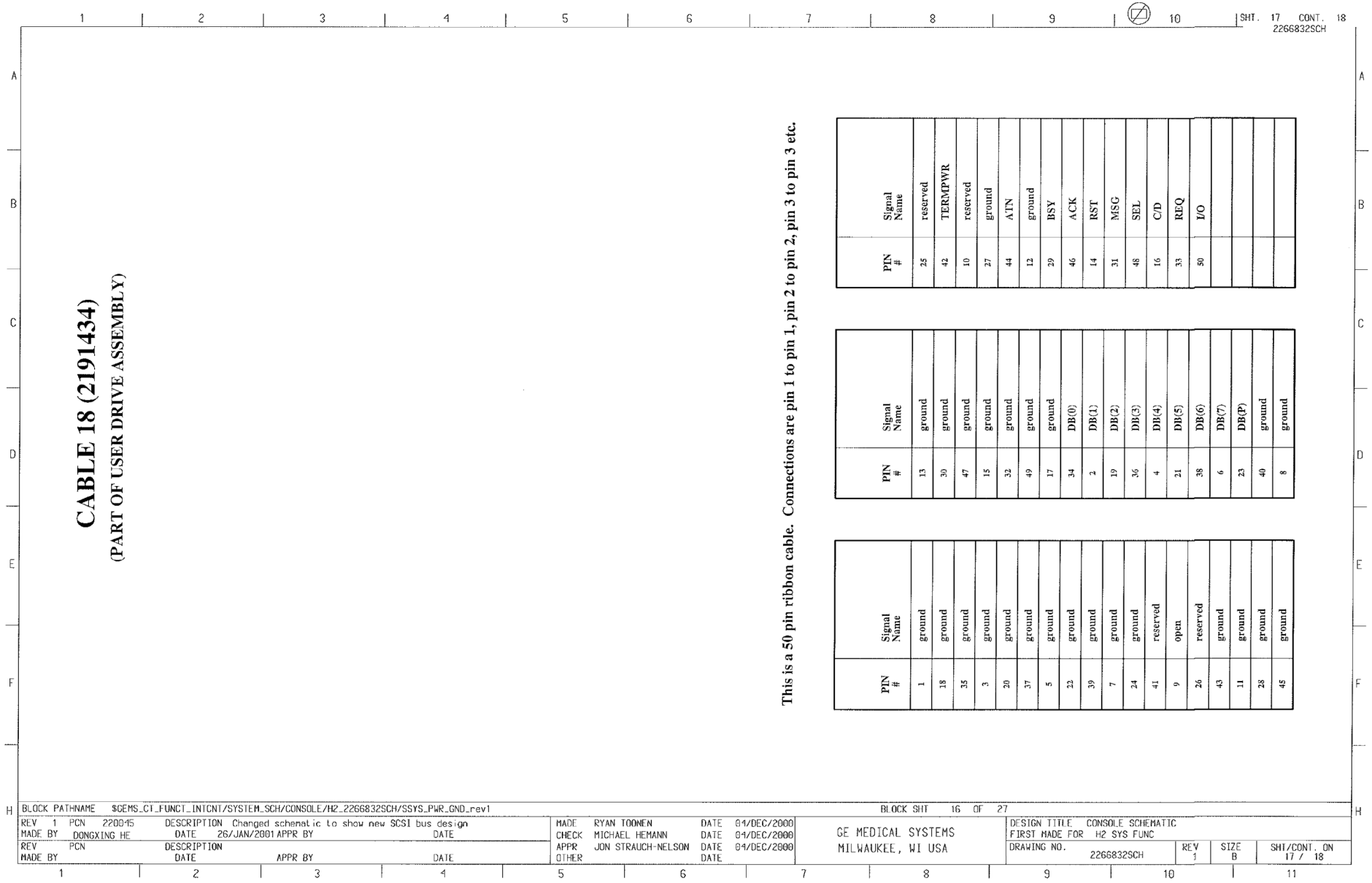


Figure 4-16 2266832, Sheet 17, Rev. 1

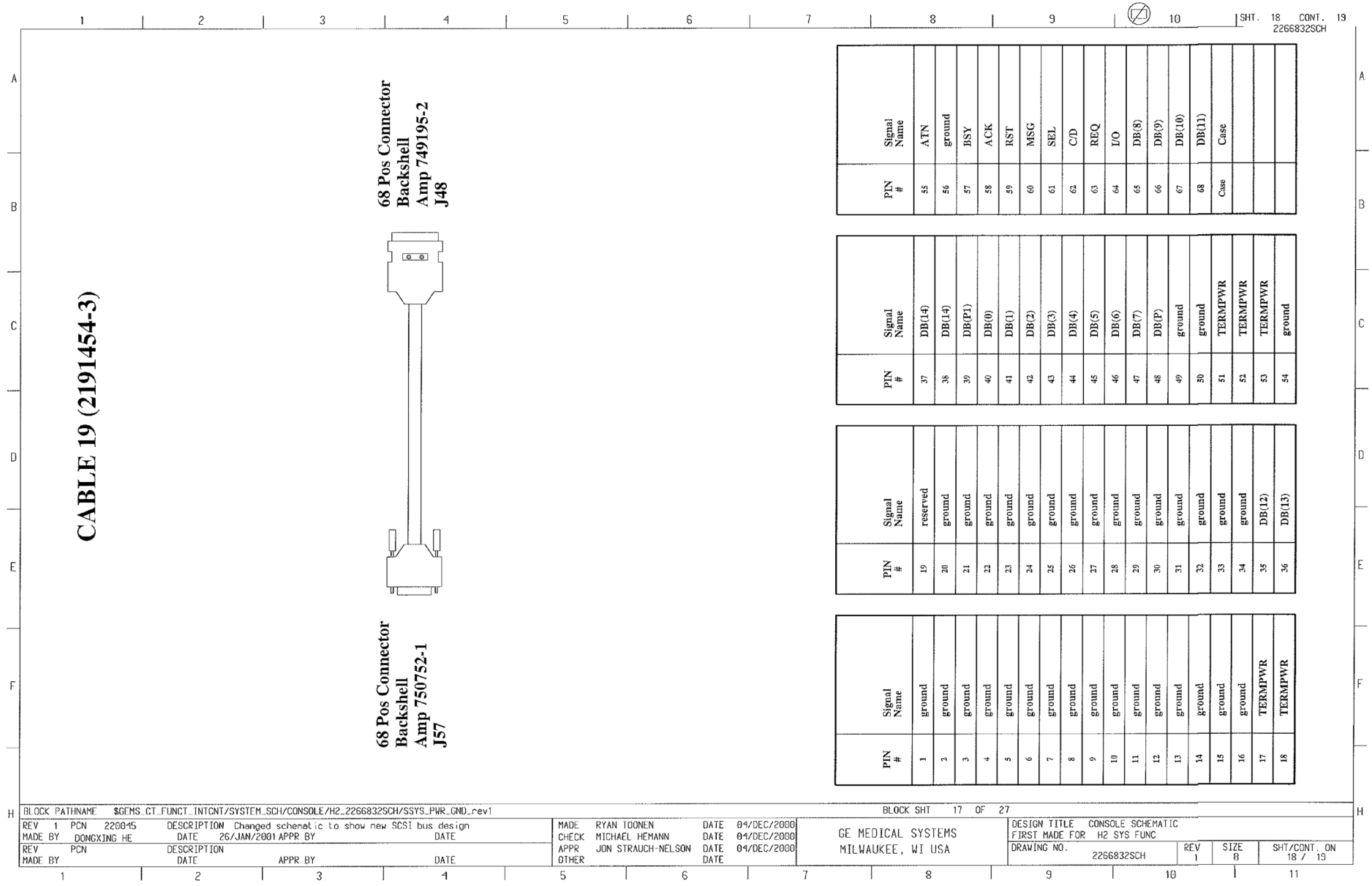


Figure 4-17 2266832, Sheet 18, Rev. 1

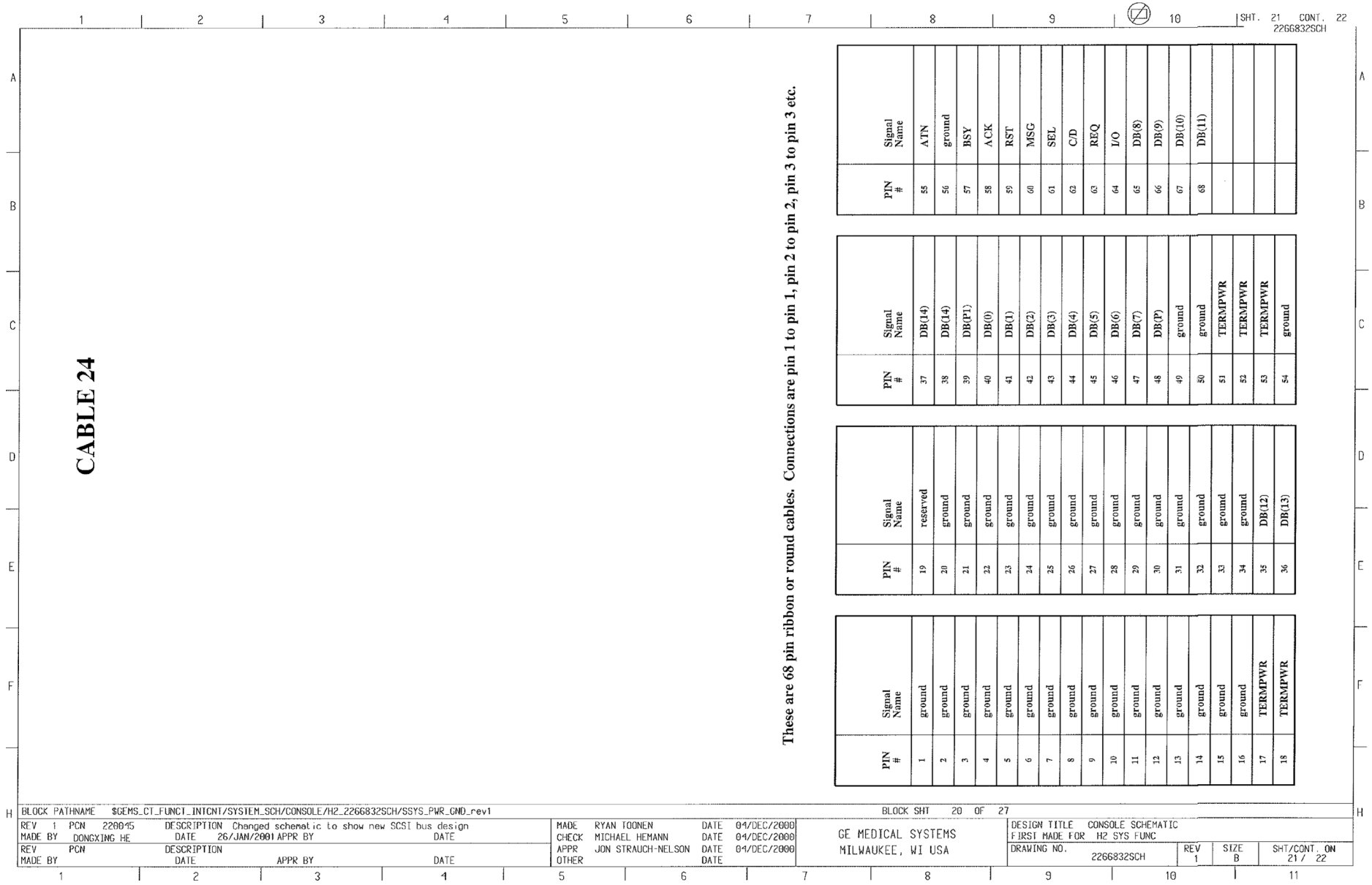


Figure 4-18 2266832, Sheet 21, Rev. 1

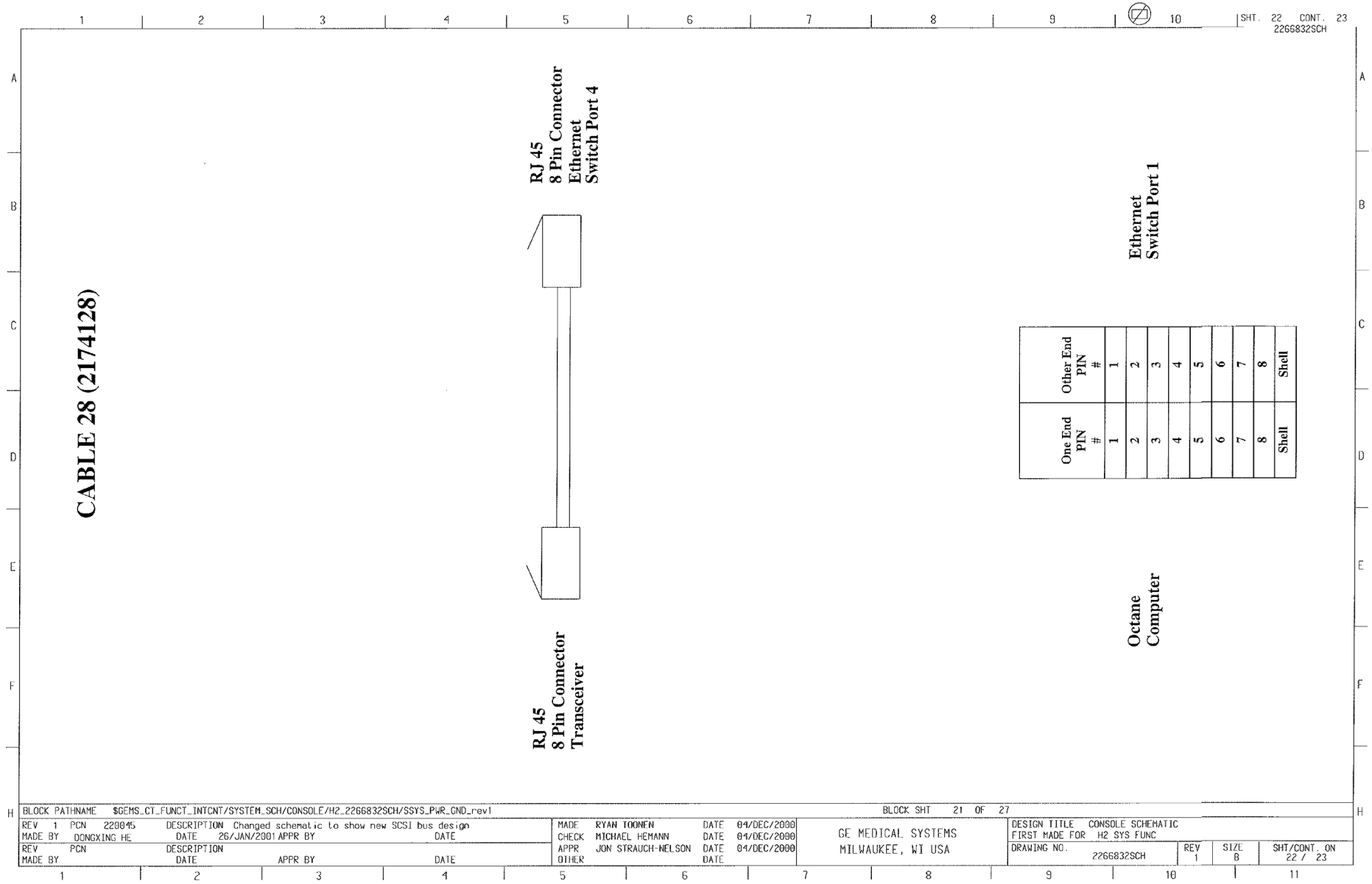


Figure 4-19 2266832, Sheet 22, Rev. 1

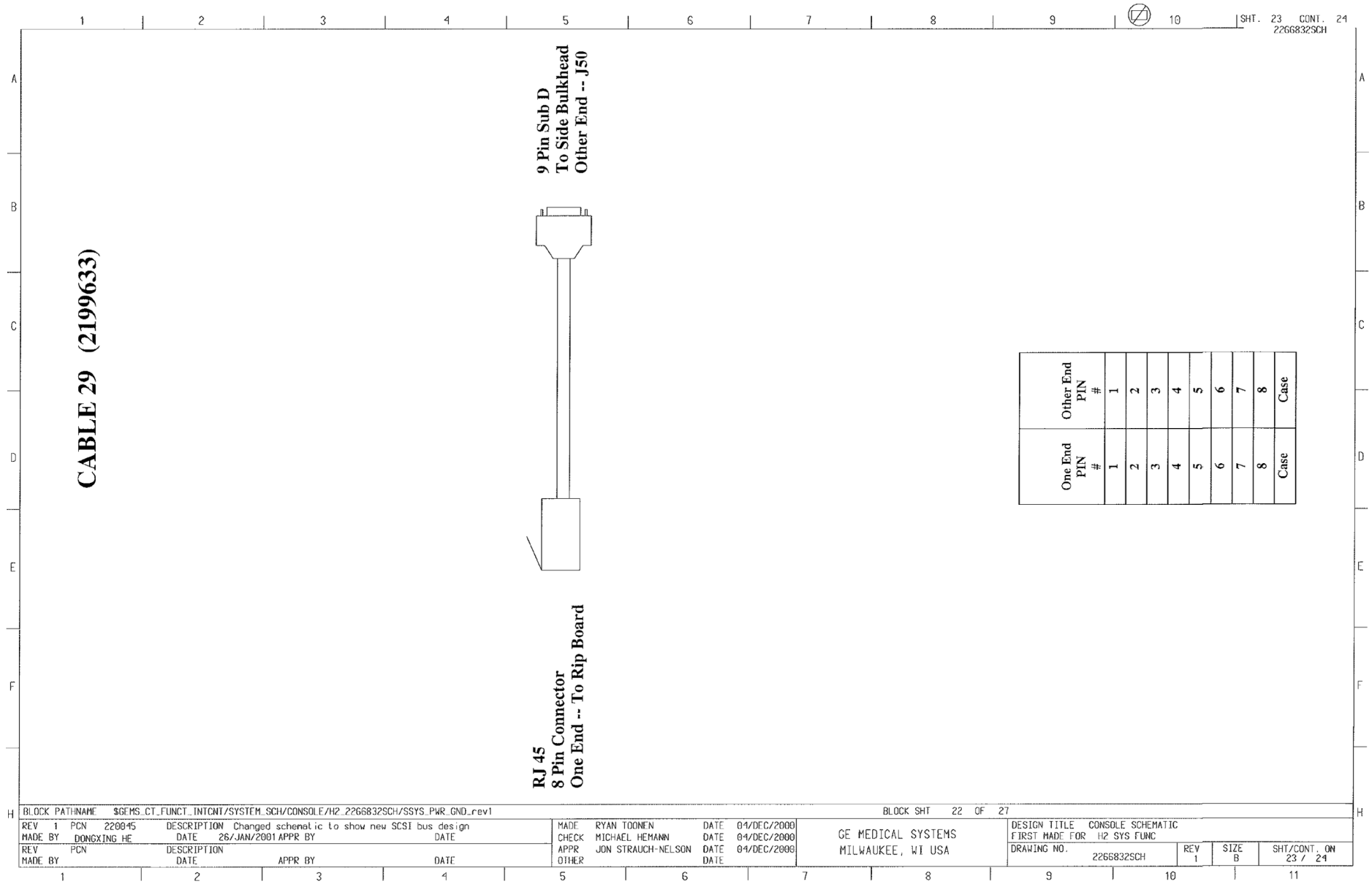


Figure 4-20 2266832, Sheet 23, Rev. 1

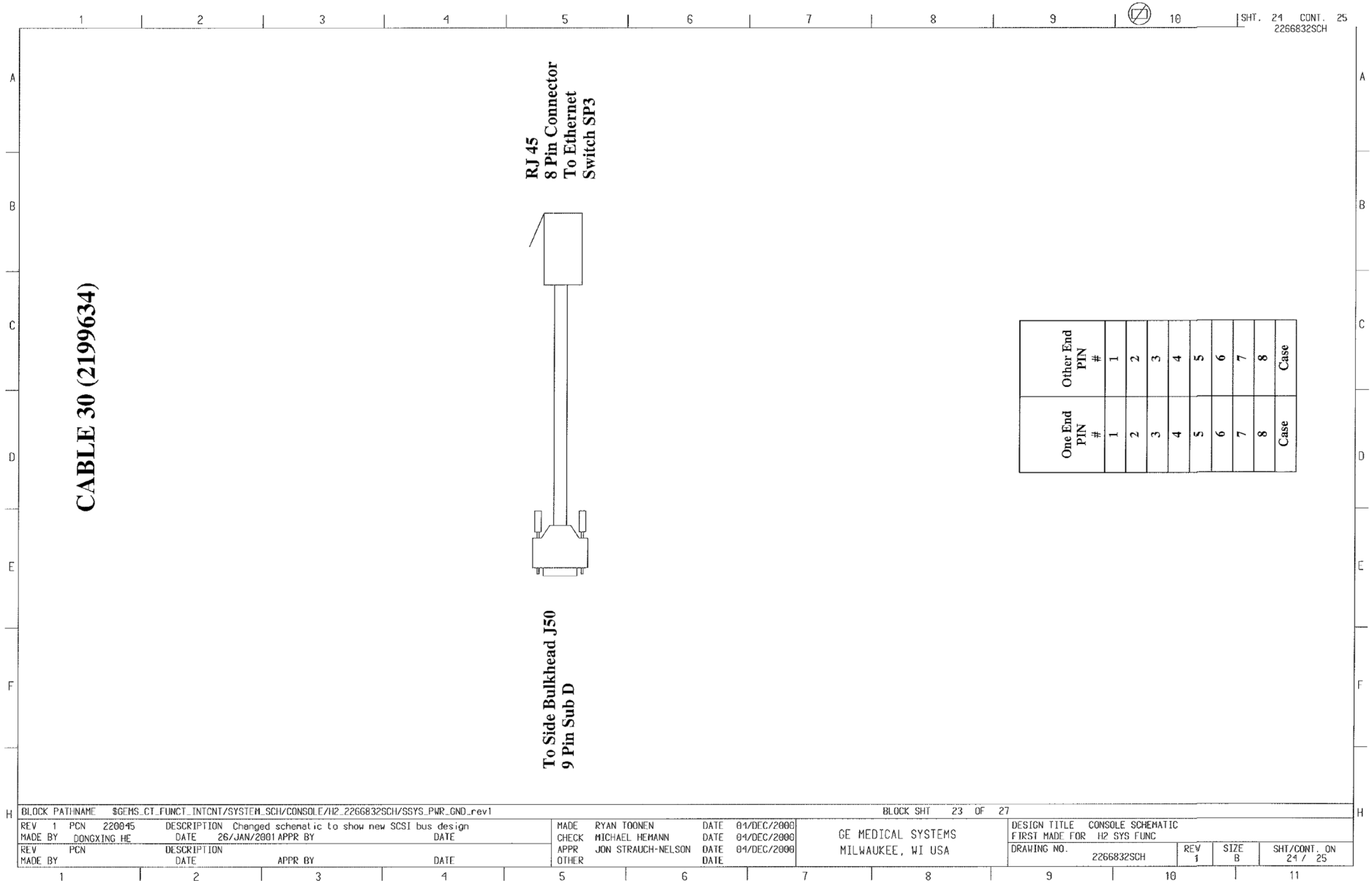


Figure 4-21 2266832, Sheet 24, Rev. 1

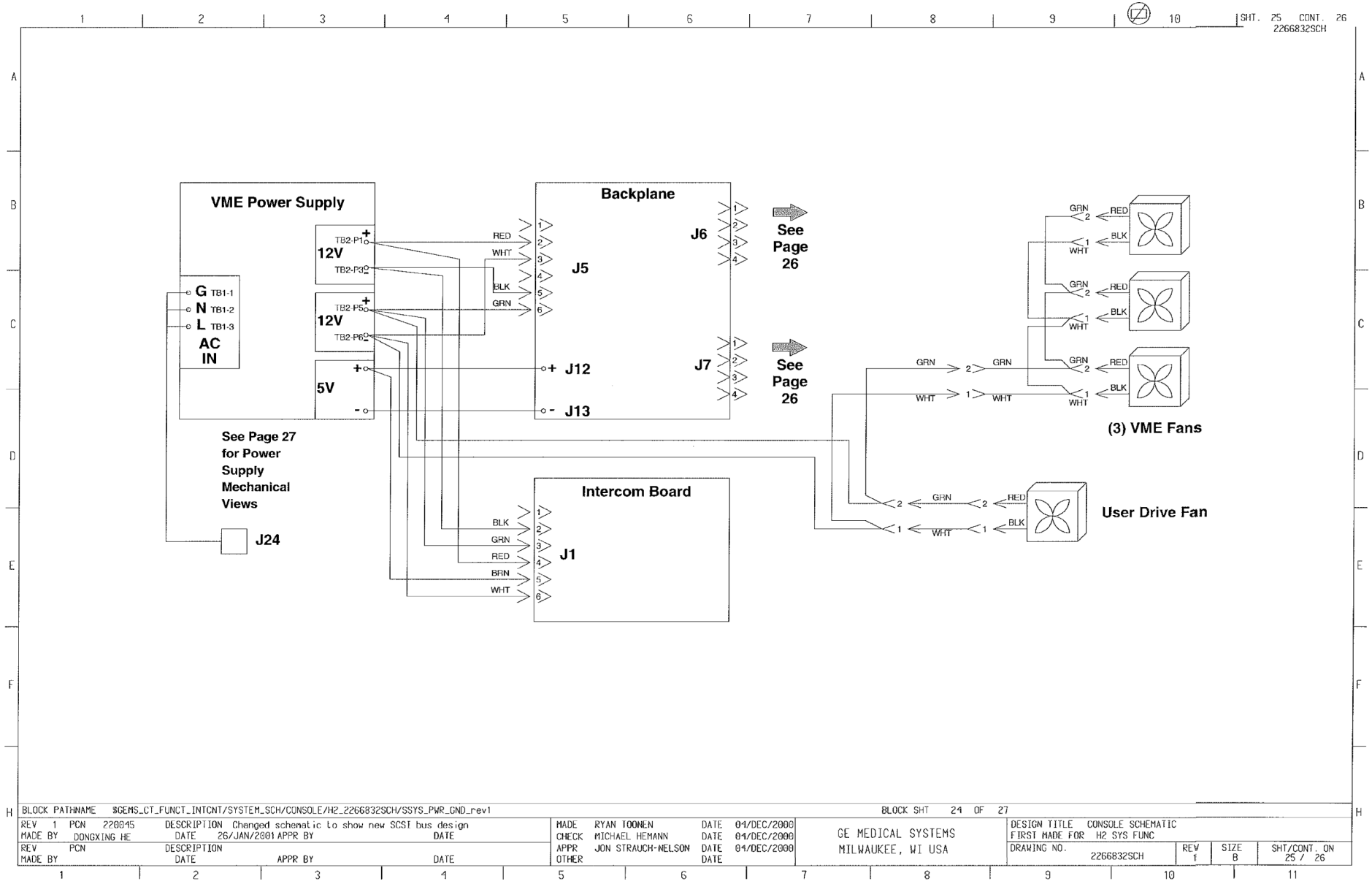


Figure 4-22 2266832, Sheet 25, Rev. 1

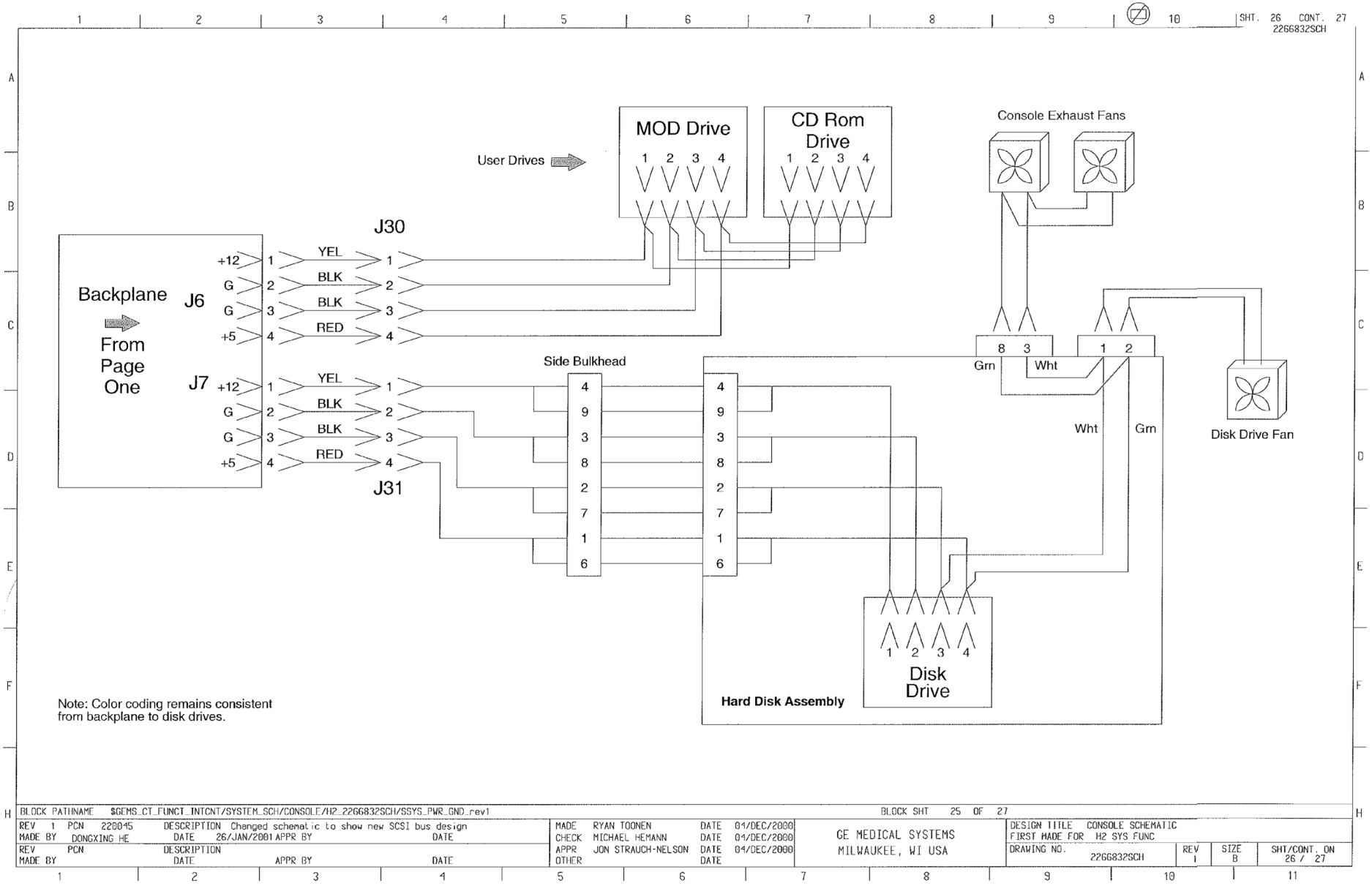


Figure 4-23 2268832, Sheet 26, Rev. 1

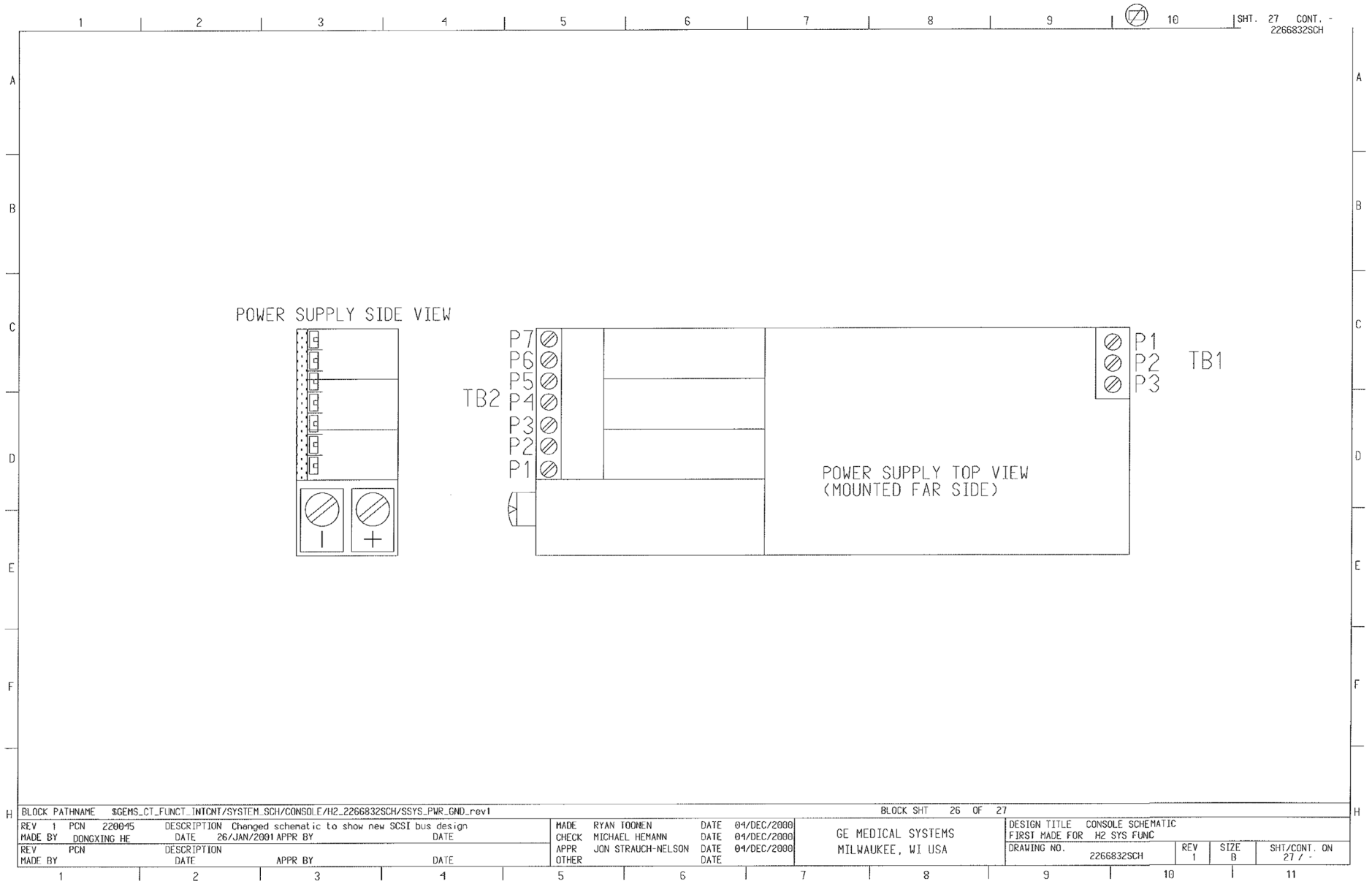


Figure 4-24 2266832, Sheet 27, Rev. 1

Section 3.0 — Motorola Board - 2197234-2

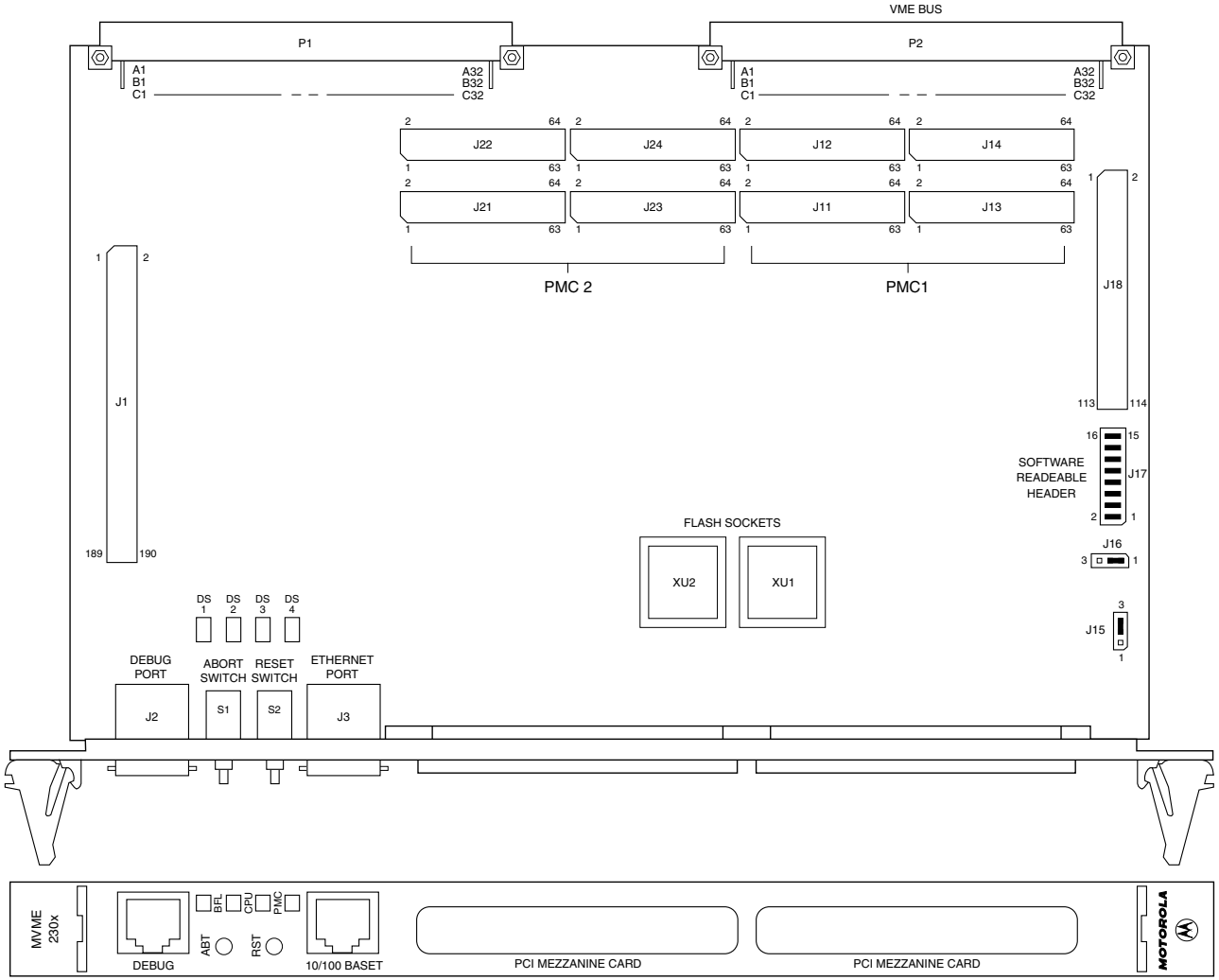


Figure 4-25 Motorola Board Layout

Section 4.0 — Pegasus IG Board - 2216467

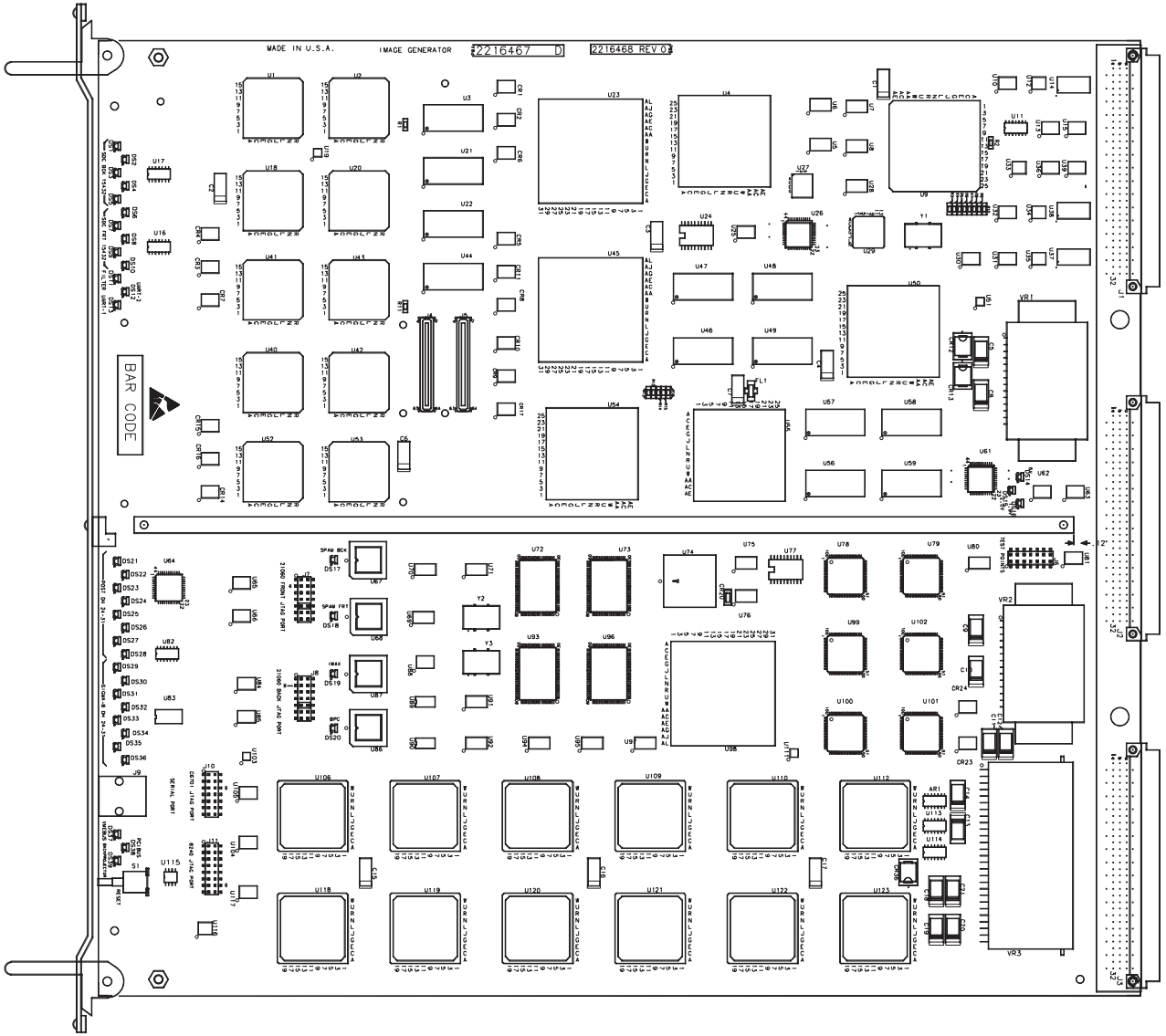


Figure 4-26 Pegasus IG Board Layout (Sheet 1, Rev 0)

Section 5.0 — DAS Interface Processor - 2245261

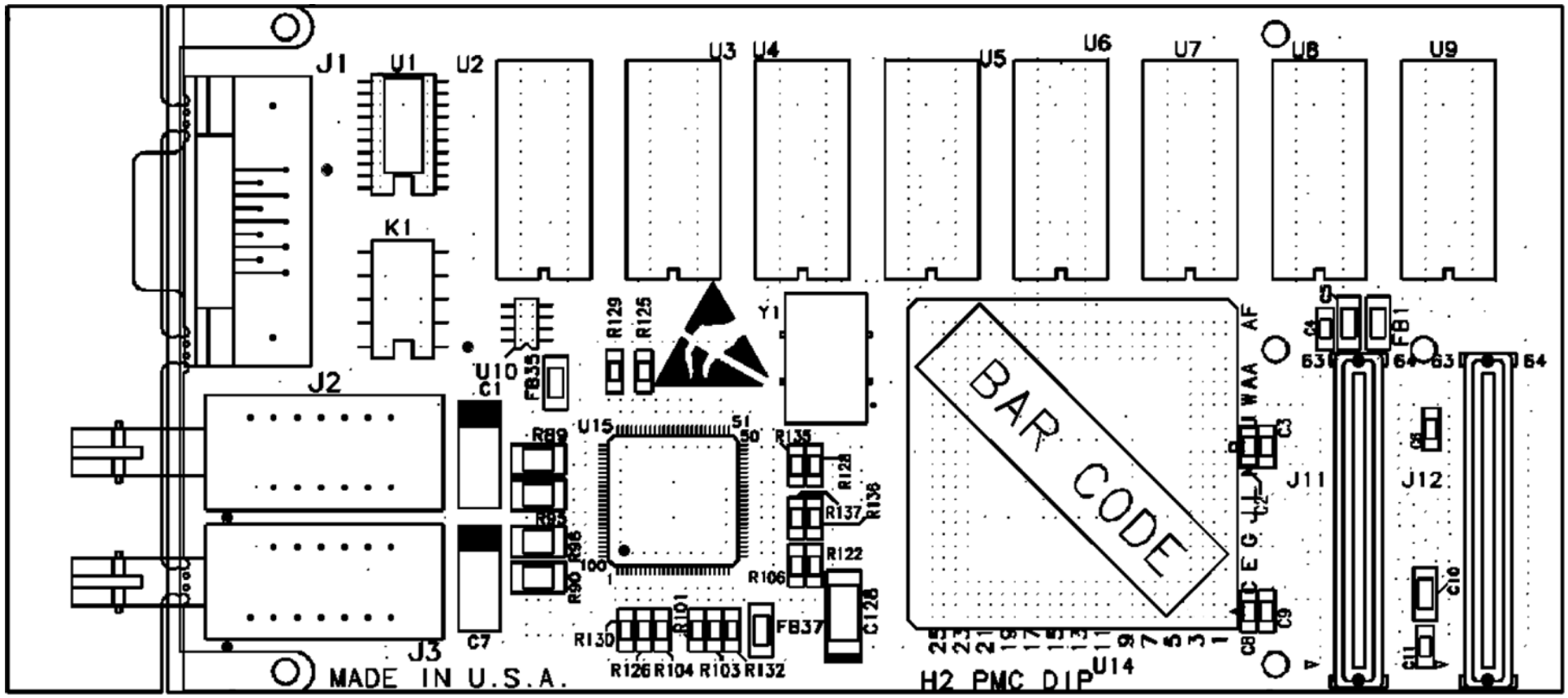


Figure 4-27 DIP Board Layout (Sheet 1, Rev 0)

2245261SCH

SHEET_NAME	SHT NUM	REV
H2_PCI_AT_DIP(2)	2	0
H2_PCI_AT_DIP(3)	3	1
H2_PCI_AT_DIP(4)	4	0
H2_PCI_AT_DIP(5)	5	0
H2_PCI_AT_DIP/DIP_CTL(1)	6	0
H2_PCI_AT_DIP/PCI_CONN(1)	7	0
H2_PCI_AT_DIP/CYPRESS_TRX(1)	8	0
H2_PCI_AT_DIP/SCAN_BUF_0(1)	9	0
H2_PCI_AT_DIP/SCAN_BUF_1(1)	10	0
H2_PCI_AT_DIP/ABT_INTF(1)	11	0

NOTES:

1. THE GROUP NUMBER AND GROUP REVISION FOR THIS PWA IS 2245261 C.
2. THIS SCHEMATIC MEETS THE SPECIFICATIONS OF GE SCHEMATIC STANDARDS 46-017486.
3. UNLESS OTHERWISE SPECIFIED:
   RESISTORS ARE IN OHMS, 0.100W, 1%.
   CAPACITORS ARE IN FARADS.
   INDUCTORS ARE IN HENRIES.
4. ACTIVE LOW SIGNALS ARE INDICATED WITH "*" AFTER THE SIGNAL NAME

REVISION CONTROL

BLOCK PATHNAME $GEMS_CT_SD_PROC/2245261_ASM/H2_PMC_DIP BLOCK SHT 1 OF 5

REV 1 PCN 220416 DESCRIPTION Replace FB's 1,18,24 and 25 with 46-312066P4 MADE BY Barb Mertes DATE 29Jan02 APPR BY DATE	MADE Dongxing He DATE 9 June 00 CHECK DATE APPR DATE OTHER DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE H2_PMC DAS Interface Processor FIRST MADE FOR H2-SRU		
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2245261SCH	REV 1	SIZE B	SHT/CONT. ON 1 / 2

Figure 4-28 2245261, Sheet 1, Rev 1

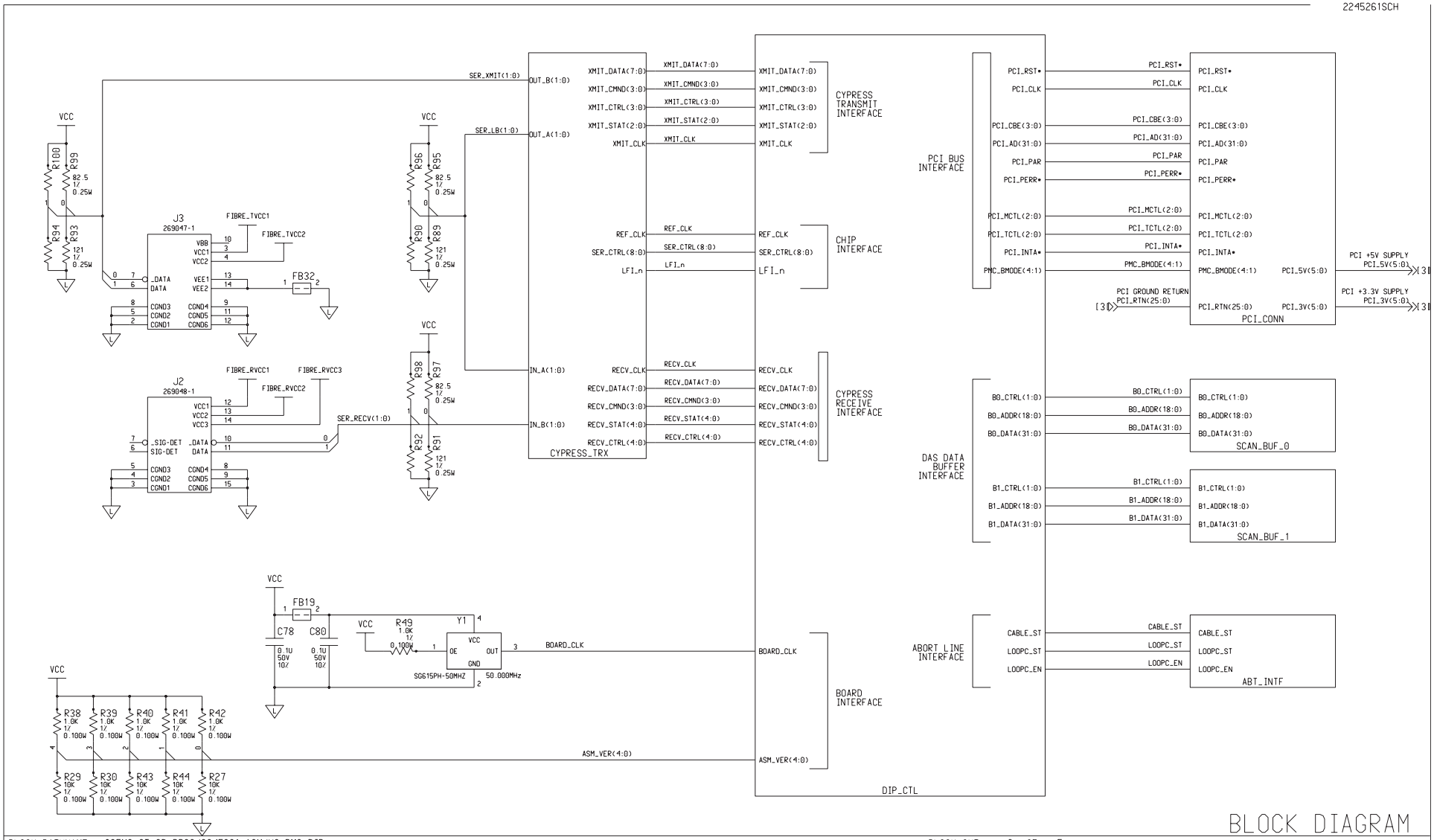


Figure 4-29 2245261, Sheet 2, Rev 0

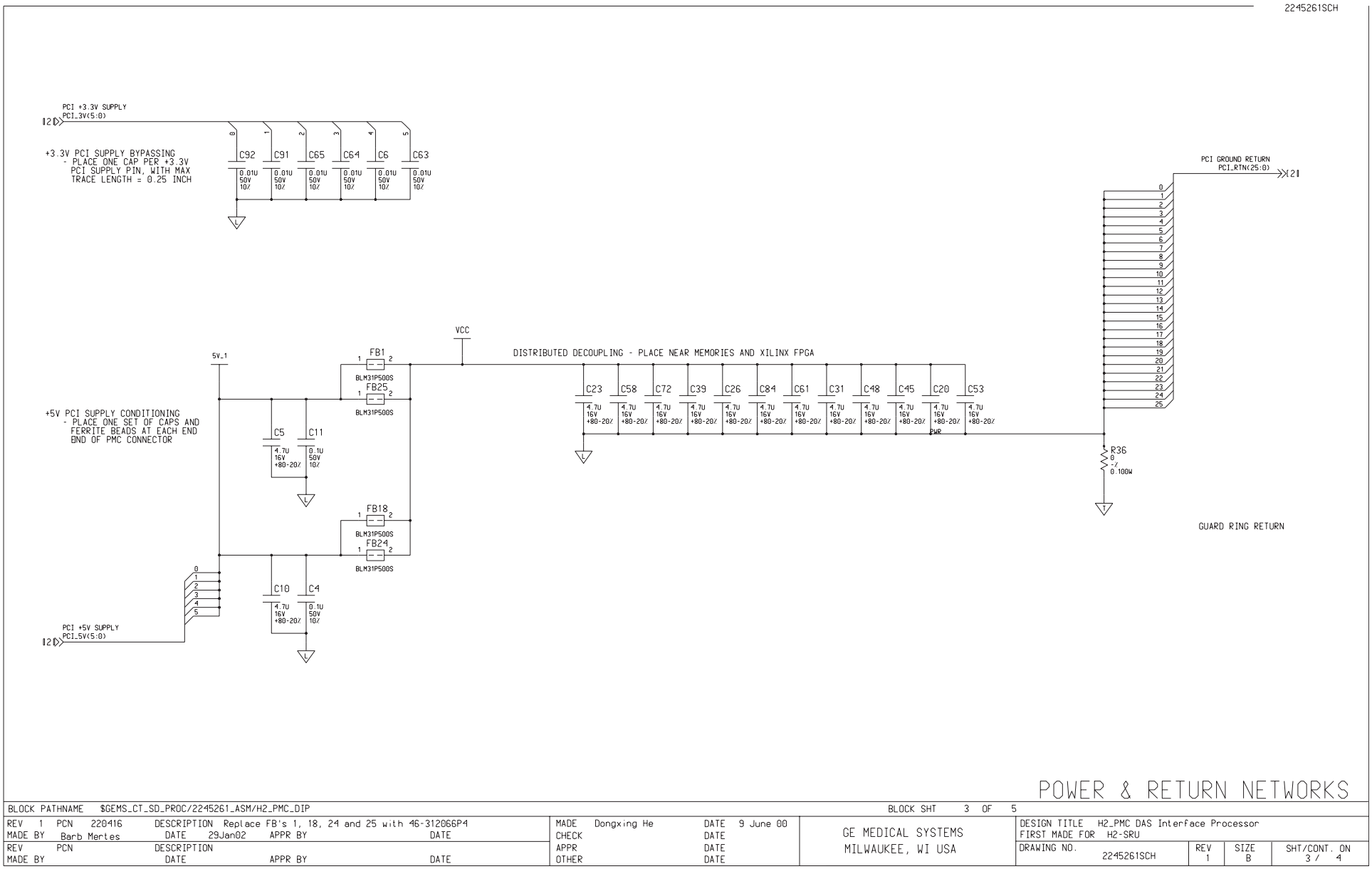


Figure 4-30 2245261, Sheet 3, Rev 1

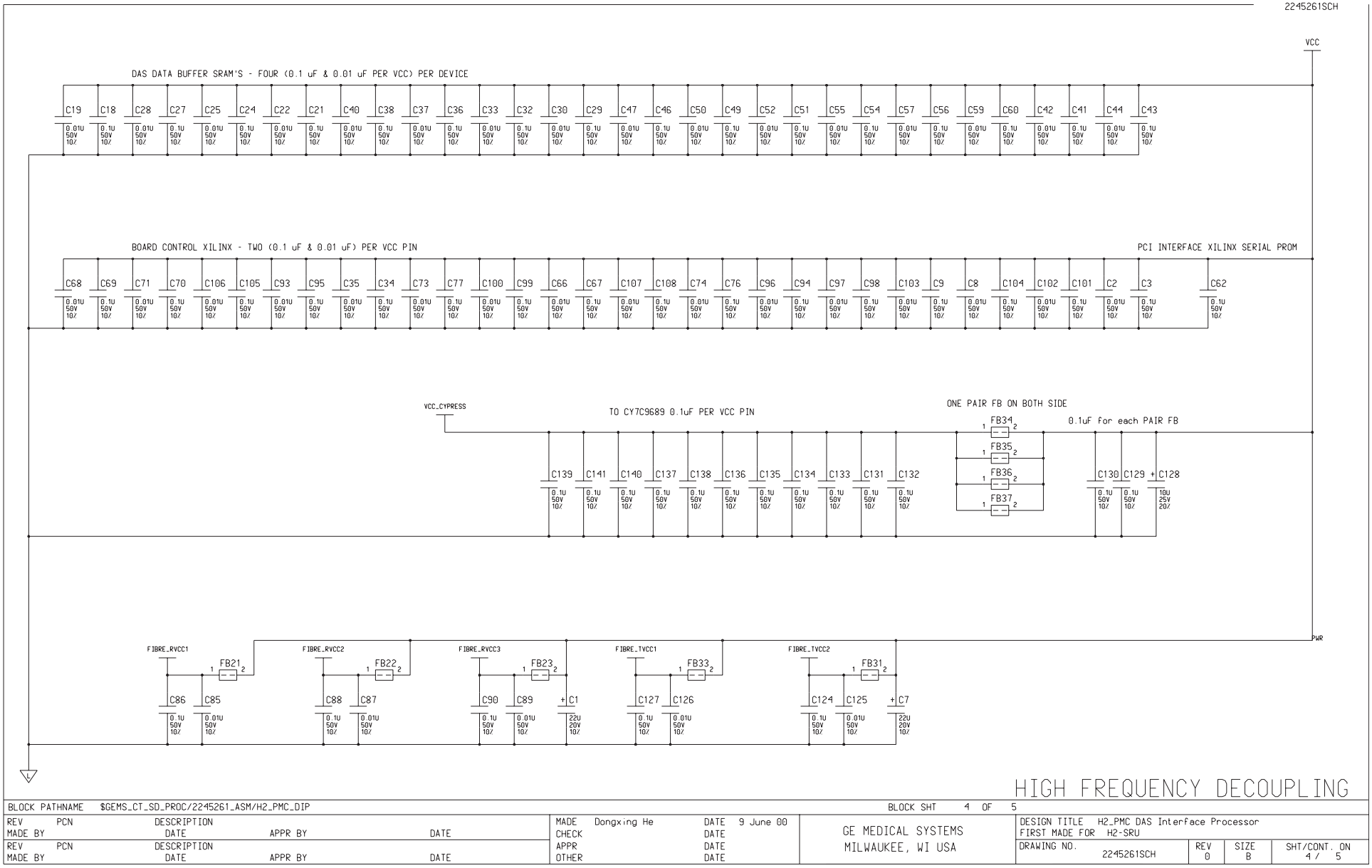


Figure 4-31 2245261, Sheet 4, Rev 0

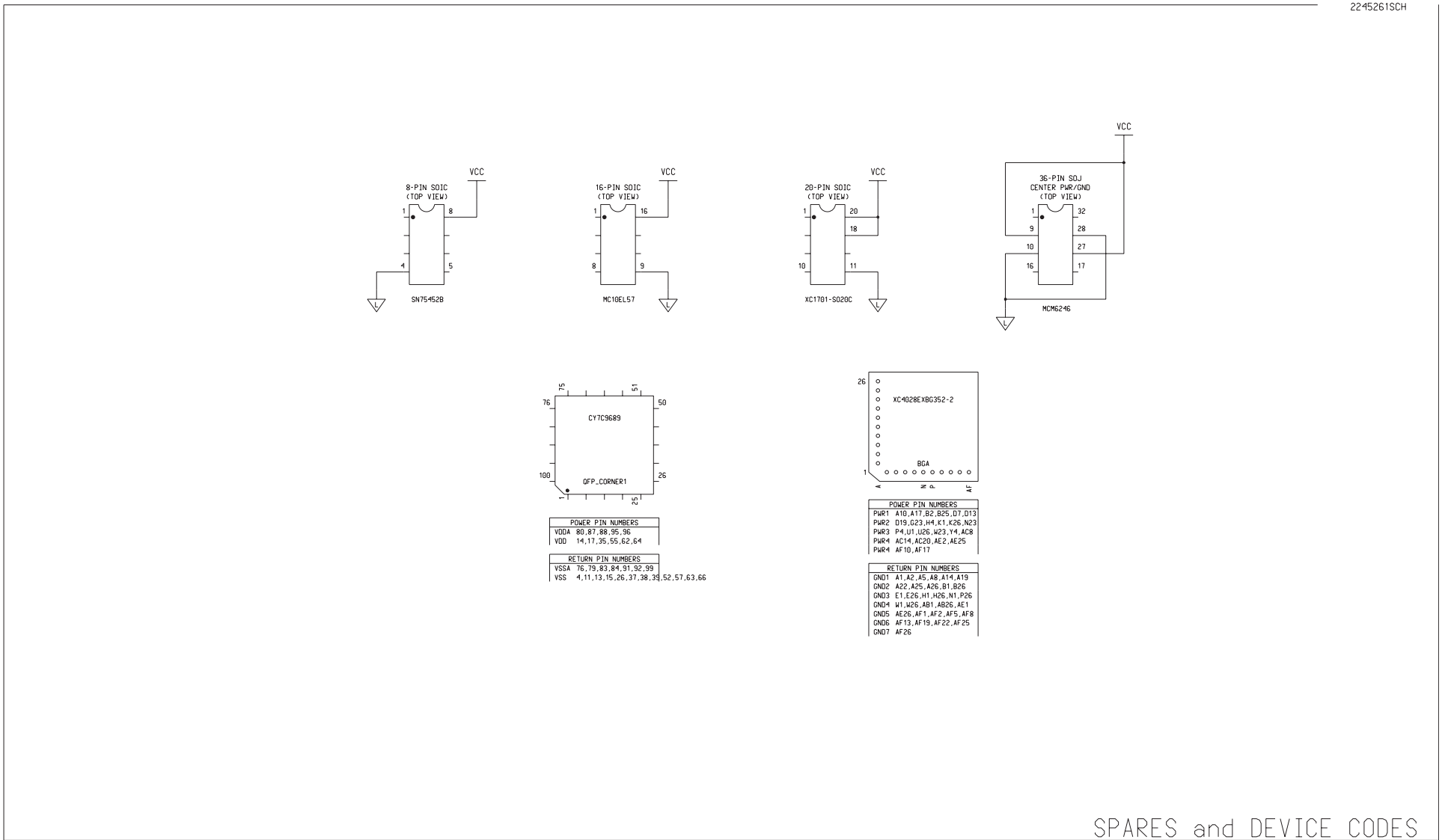
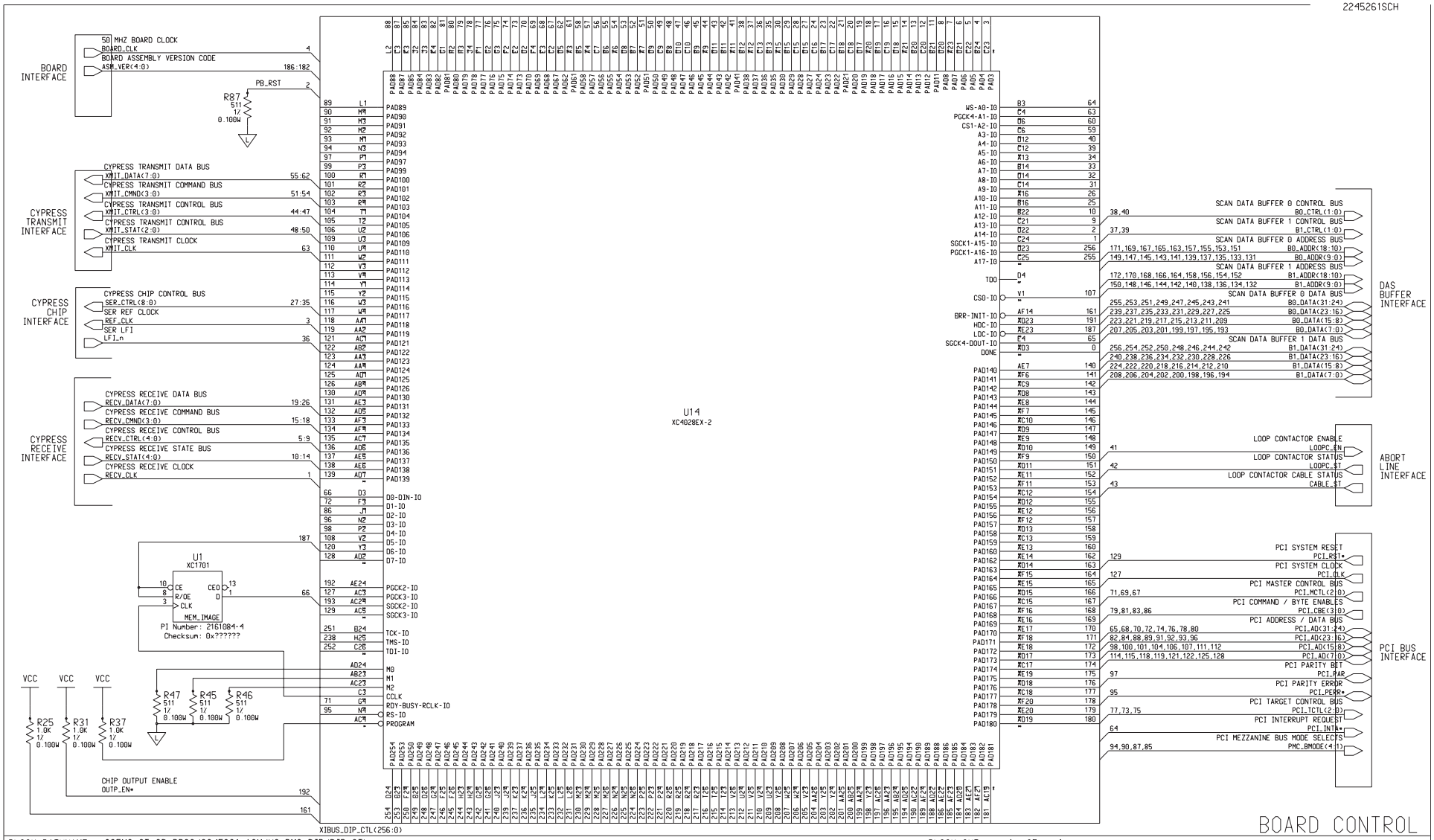


Figure 4-32 2245261, Sheet 5, Rev 0



BLOCK PATHNAME $GEMS_CT_SD_PROC/2245261_ASM/H2_PMC_DIP/DIP_CTL				BLOCK SHT 1 OF 1	
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Dongxing He CHECK APPR OTHER	DATE 9 June 00 DATE DATE DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE H2_PMC DAS Interface Processor FIRST MADE FOR H2-SRU	
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE				DRAWING NO. 2245261SCH	REV 0 / SIZE B / SHT/CONT. ON 6 / 7

Figure 4-33 2245261, Sheet 6, Rev 0

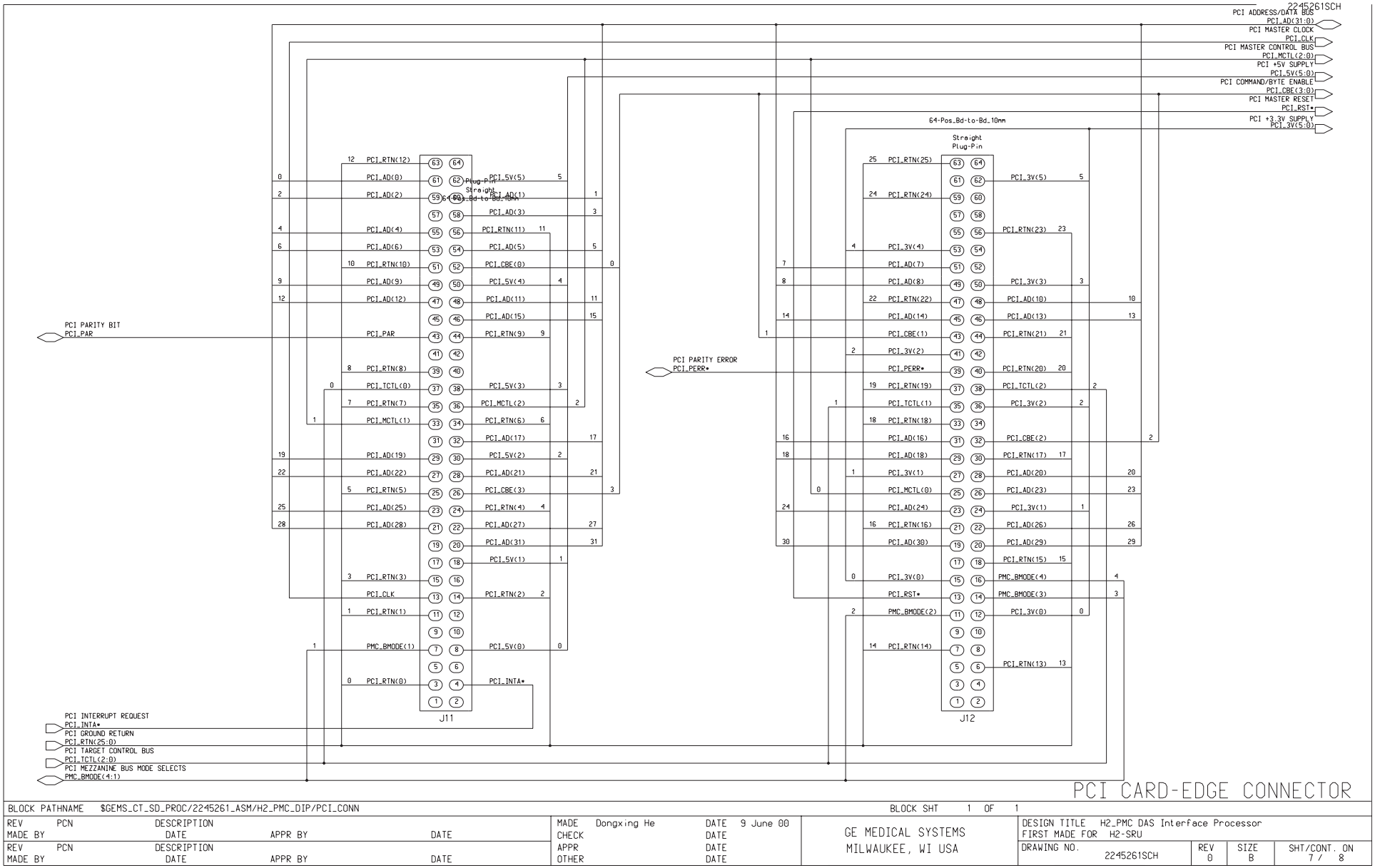


Figure 4-34 2245261, Sheet 7, Rev 0

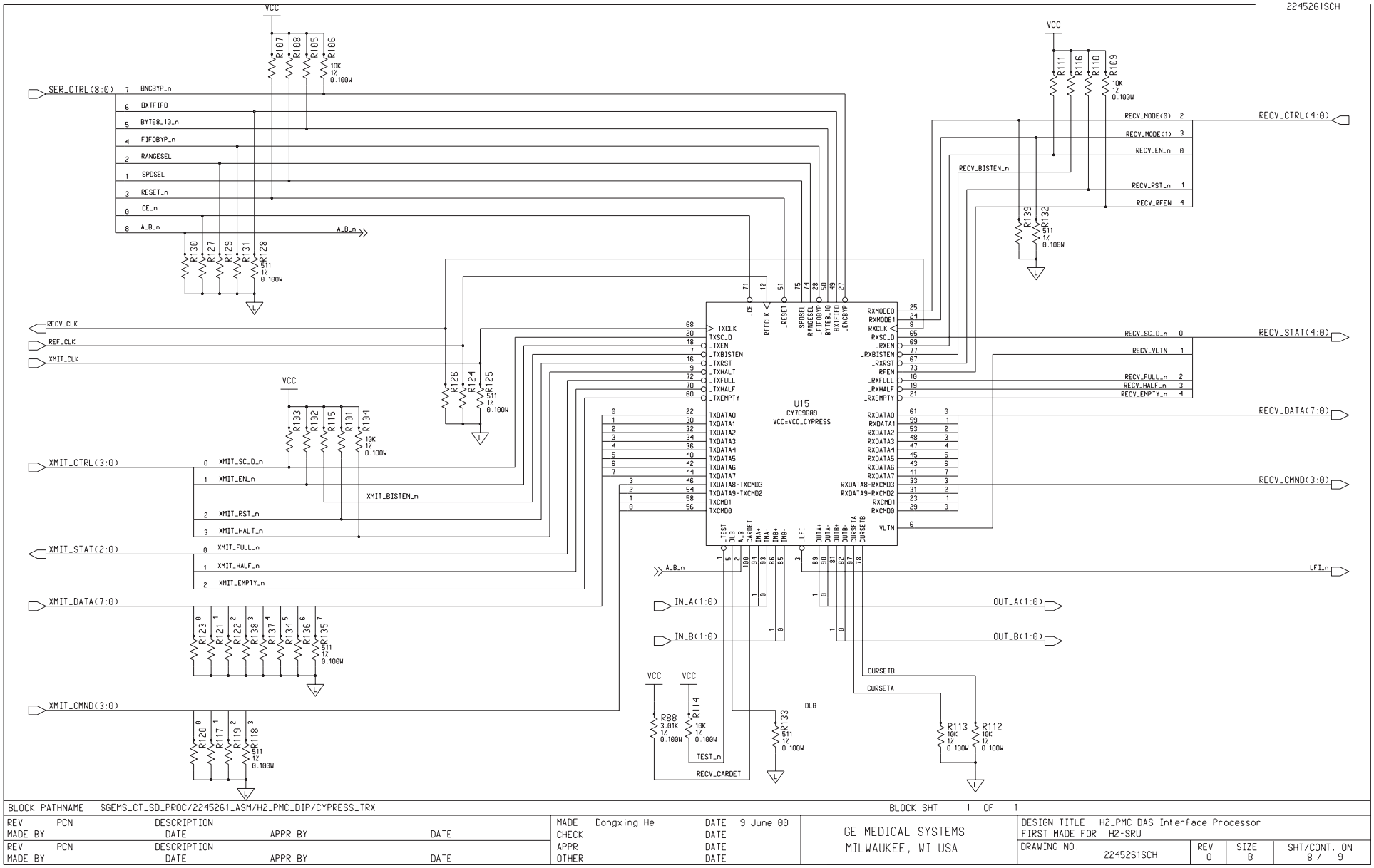


Figure 4-35 2245261, Sheet 8, Rev 0

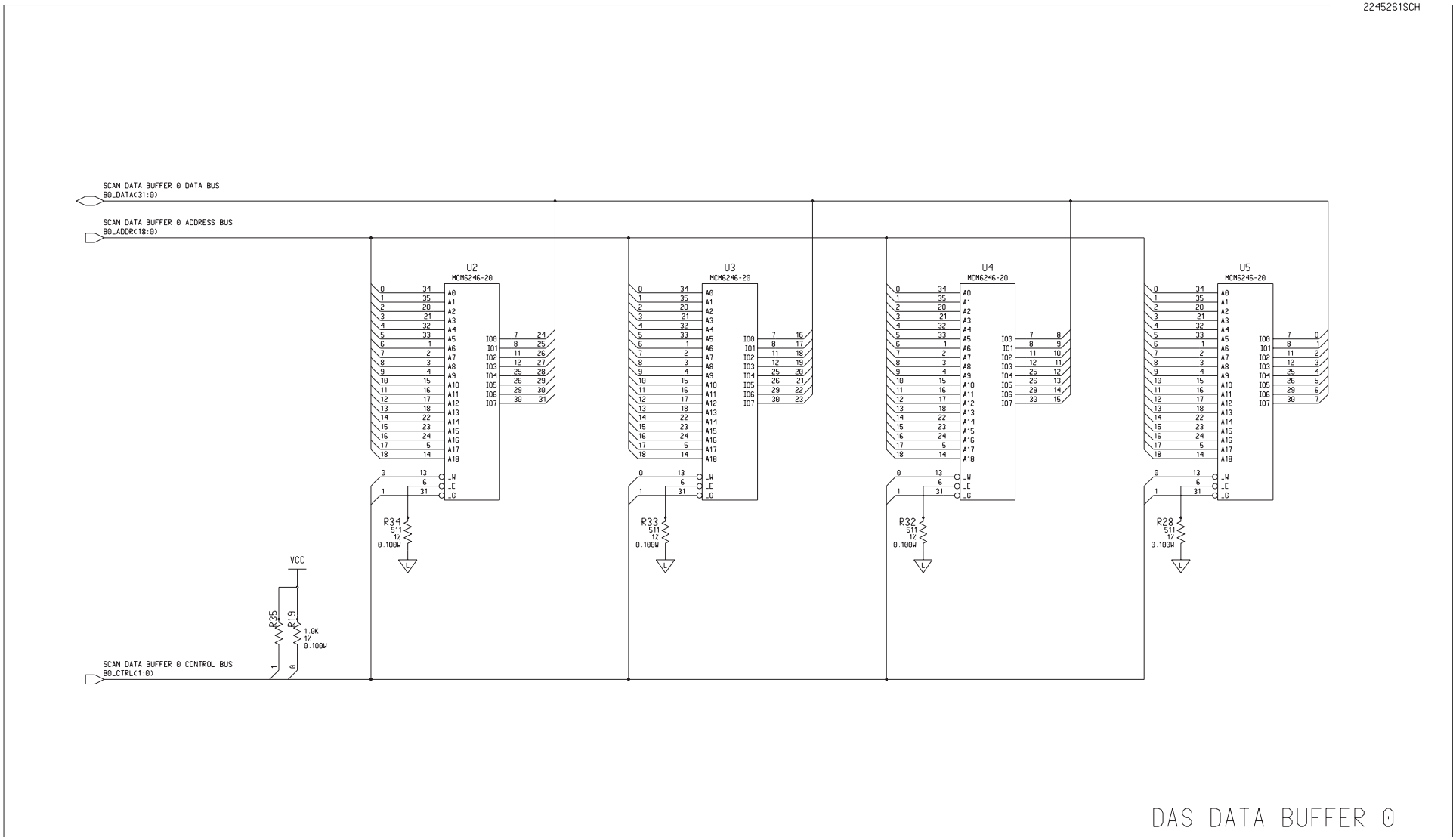


Figure 4-36 2245261, Sheet 9, Rev 0

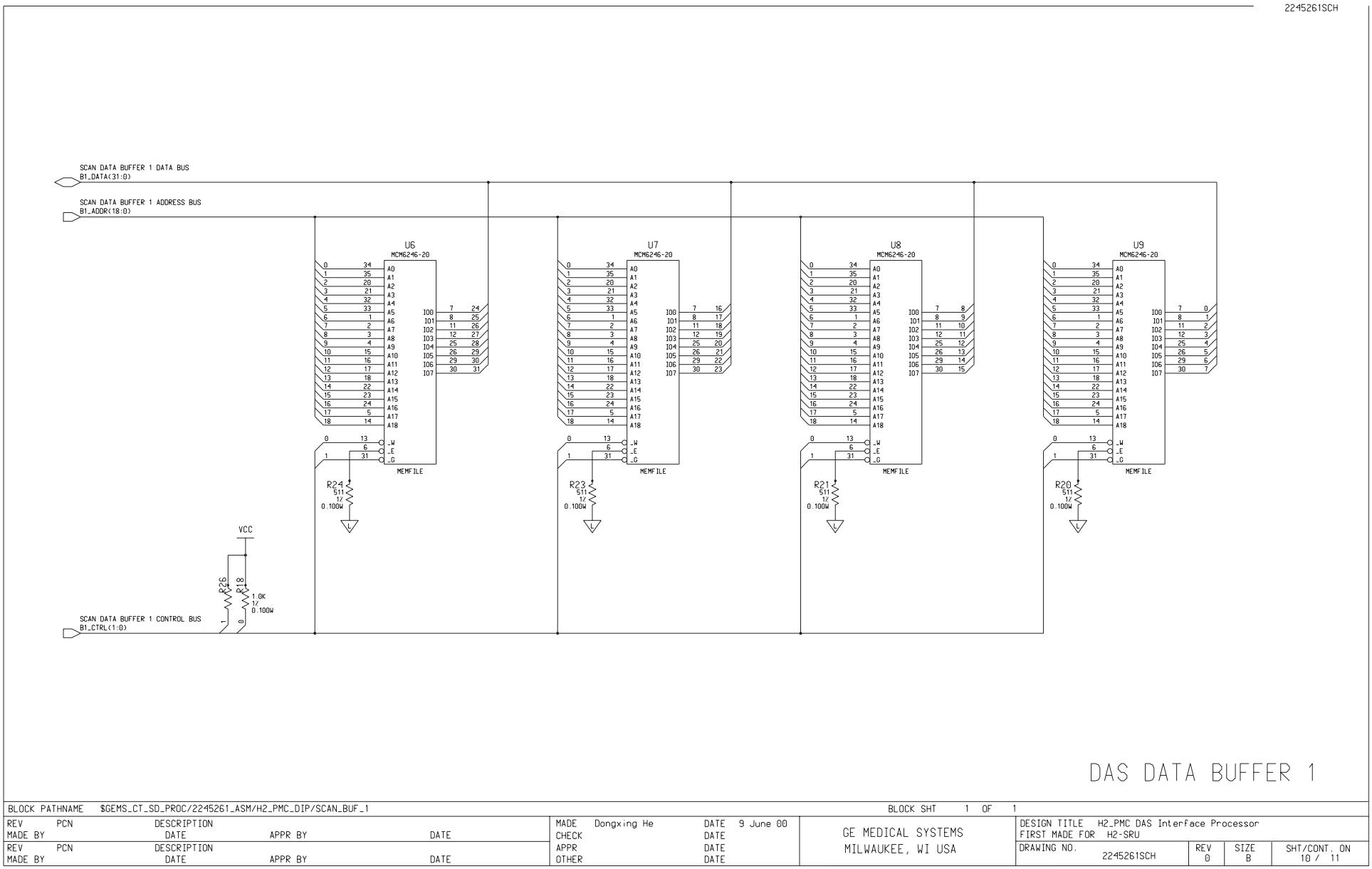


Figure 4-37 2245261, Sheet 10, Rev 0

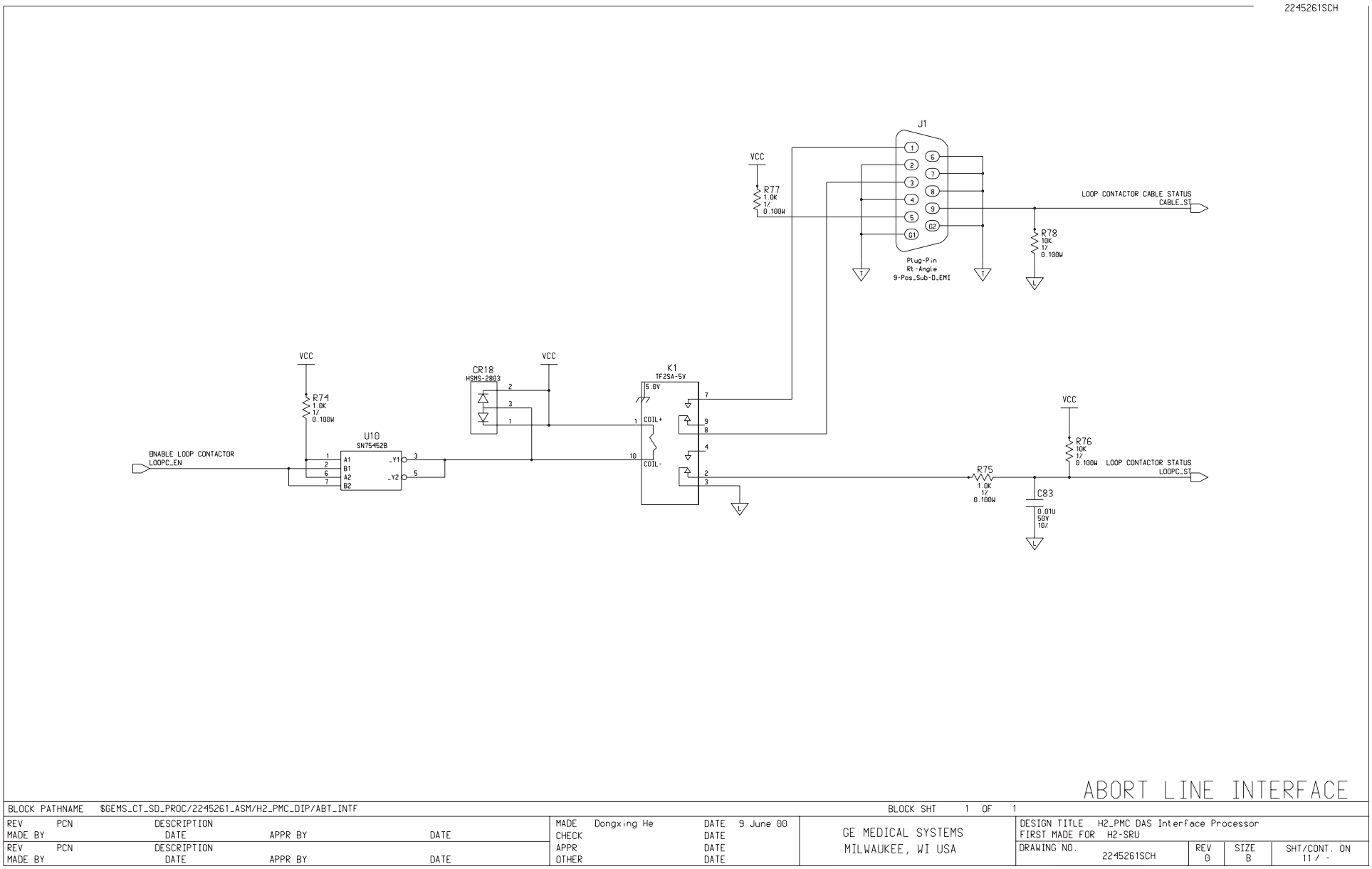


Figure 4-38 2245261, Sheet 11, Rev 0

Section 6.0 — Intercom Board - 2167014

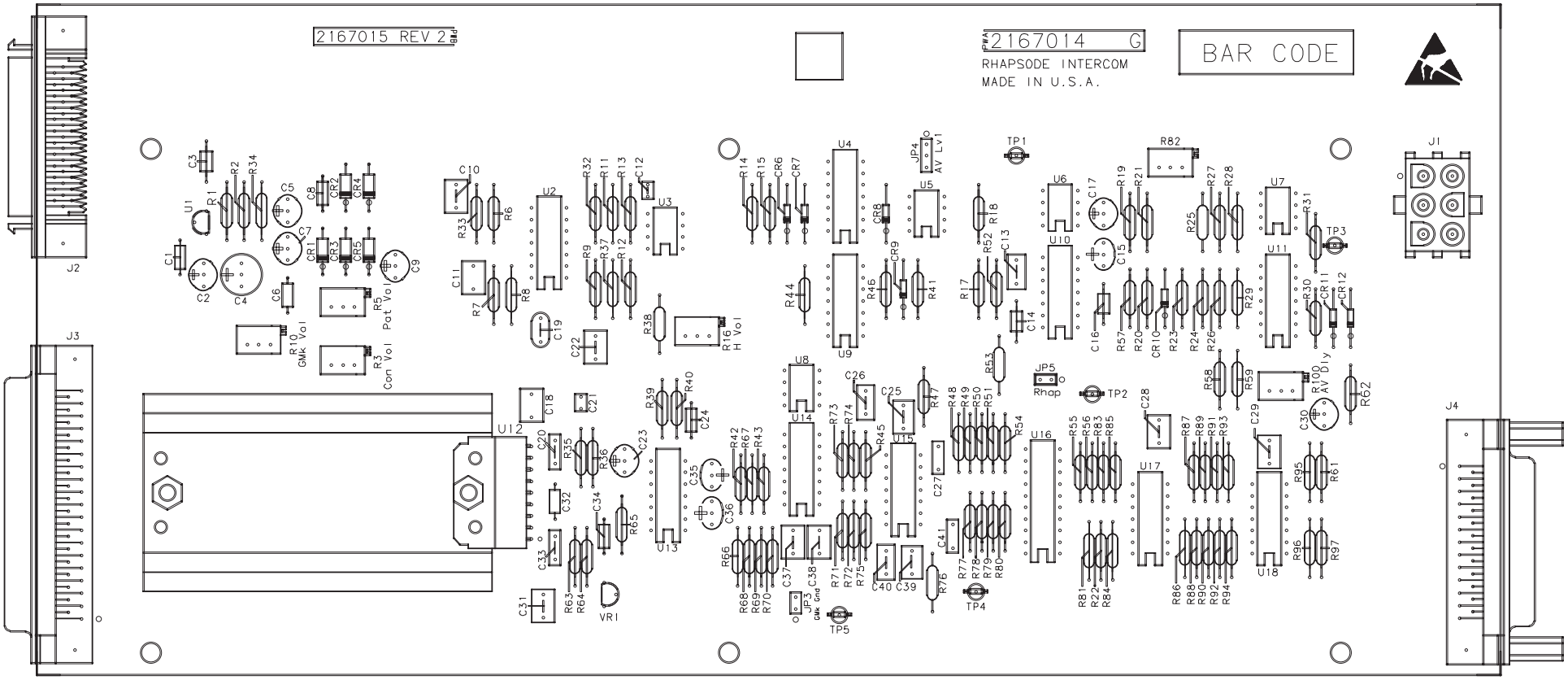


Figure 4-39 Intercom Board Layout (Sheet 1, Rev 5)

Section 7.0 — Prescribed Tilt Board - 2269601

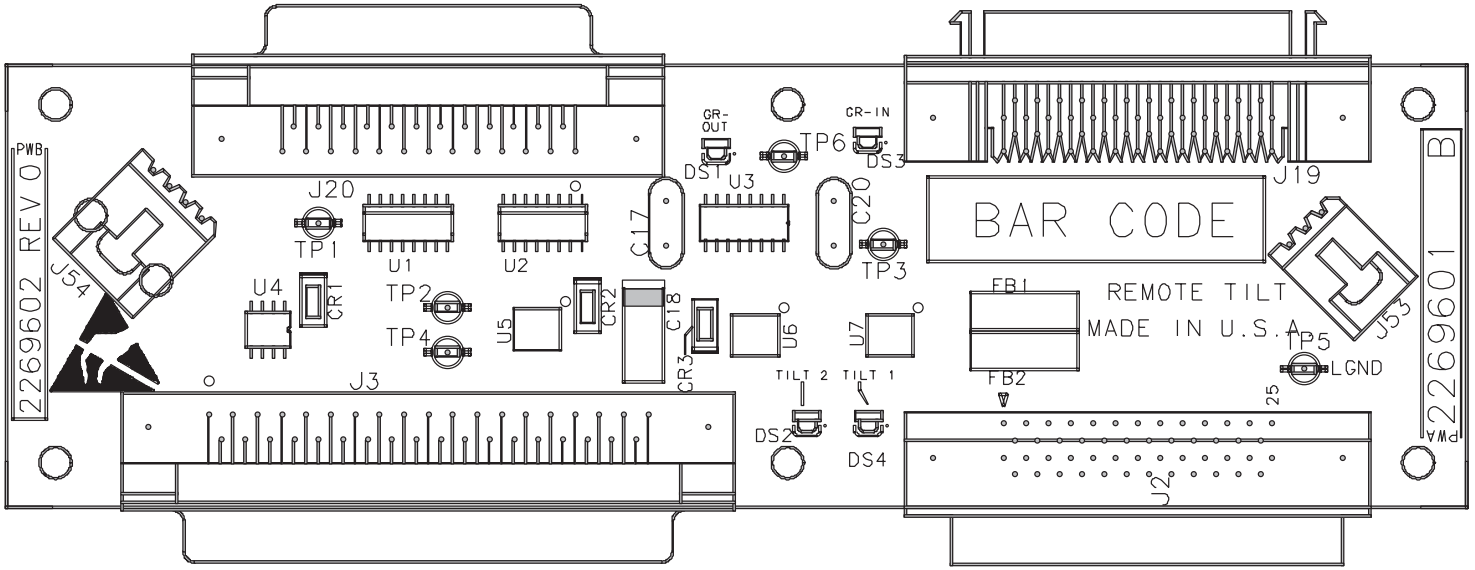


Figure 4-40 Remote Tilt Board Layout (Sheet 1, Rev 2)

2269601SCH

SHEET_NAME	SHT NUM	REV
REMOTE_Tilt_Bd	2	1
Remote_Tilt.1	3	0
Remote_Tilt.2	4	1
SCHEMATIC	5	0
SCHEMATIC	6	0

NOTES:

1. THE VARIATION AND REVISION FOR THIS PWA IS 2269601 C.
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

BLOCK PATHNAME $GEMS_CT_PAT_POS/2269601_ASM/Remote_Tilt_Bd						BLOCK SHT 1 OF 4	
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE			MADE Gerois / Dongxing DATE 10JUL2000 CHECK Gerois DiMarco DATE 28JUL00 APPR Gerois Dimarco DATE 28JUL00 OTHER DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE Prescribed Tilt and Gantry Reset Interface Board FIRST MADE FOR Helios 2.0		
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE					DRAWING NO. 2269601SCH	REV 1	SIZE B	SHT/CONT. ON 1 / 2

Figure 4-41 2269601, Sheet 1, Rev 1

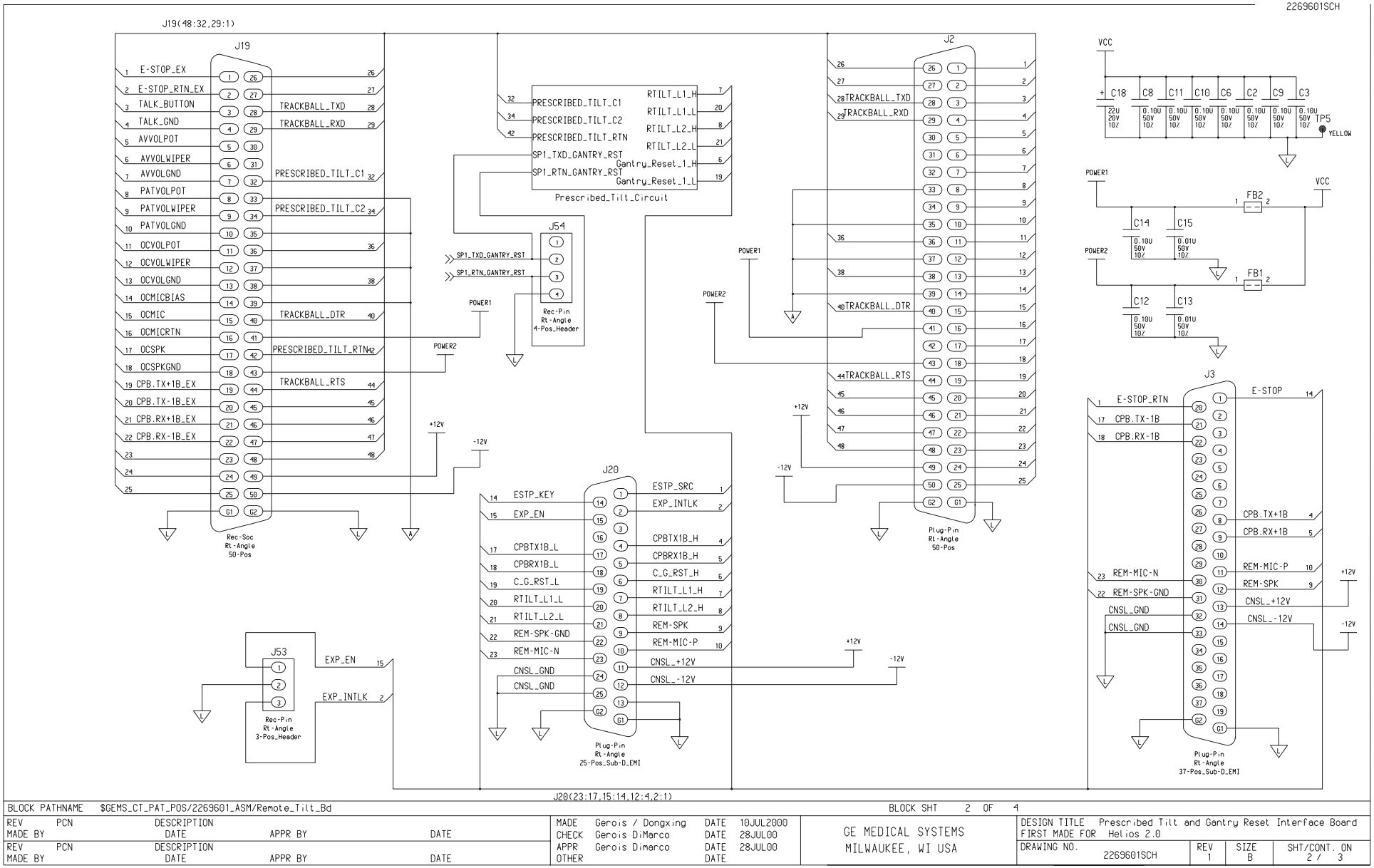


Figure 4-42 2269601, Sheet 2, Rev 1

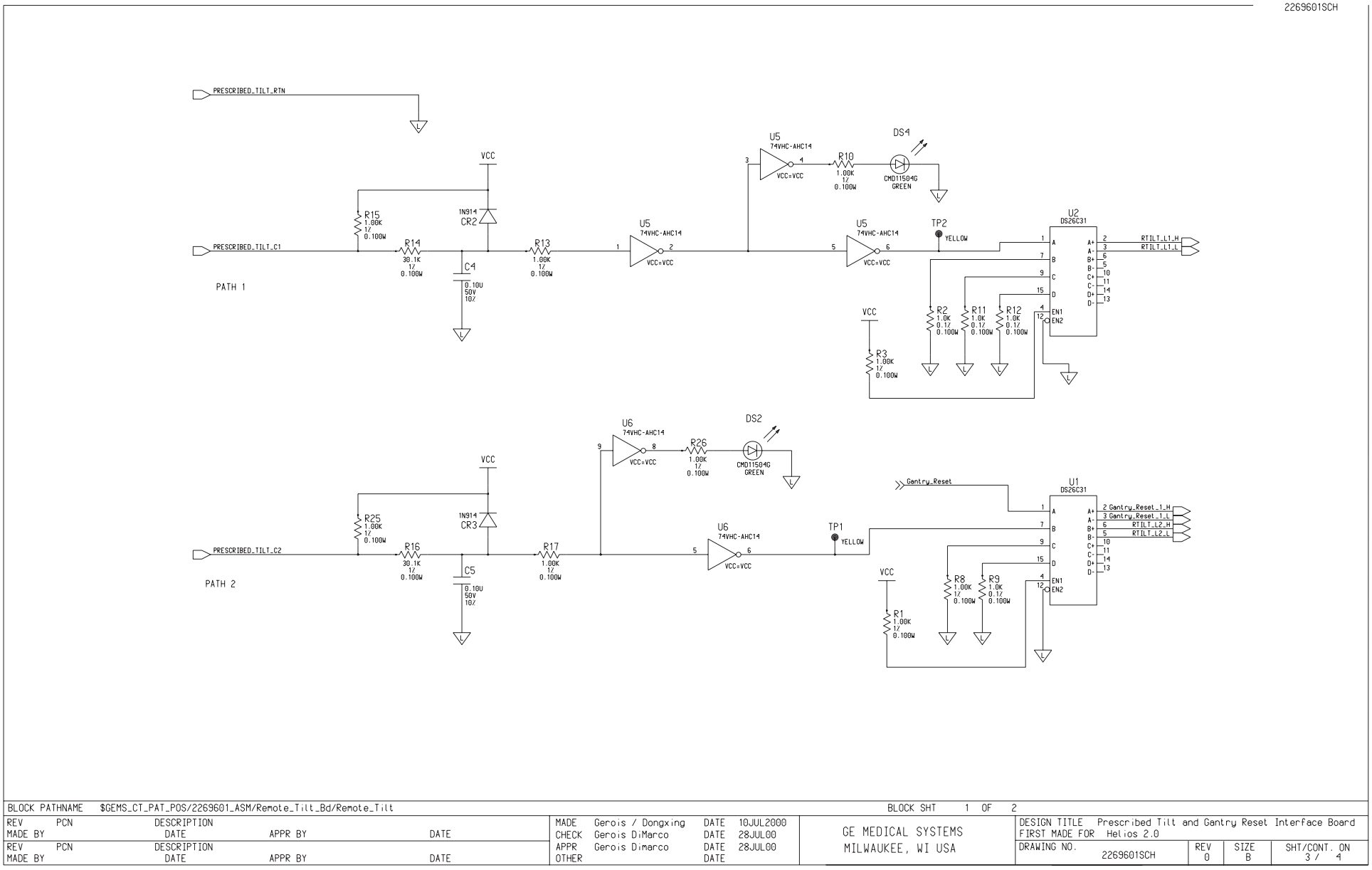


Figure 4-43 2269601, Sheet 3, Rev 0

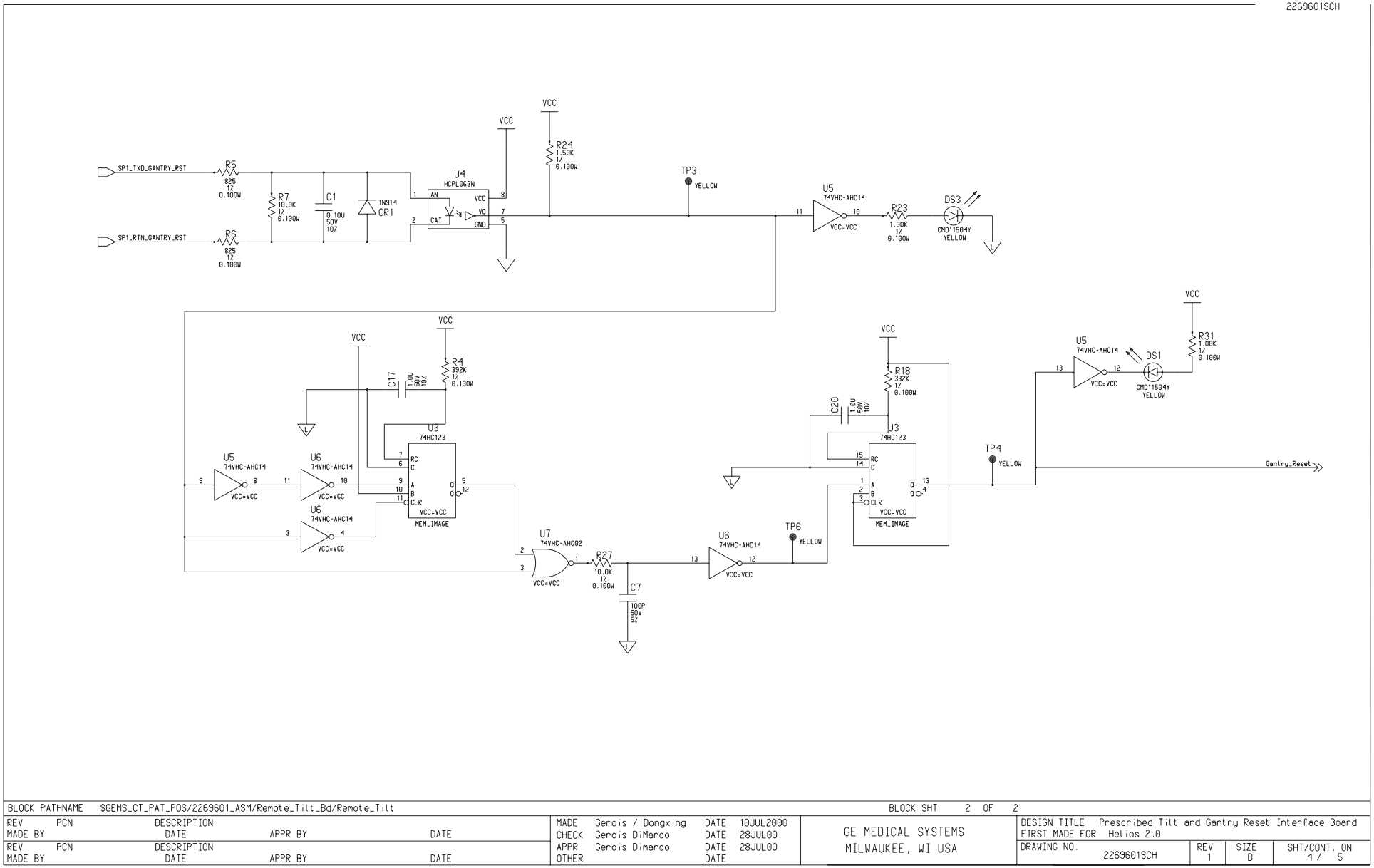


Figure 4-44 2269601, Sheet 4, Rev 1

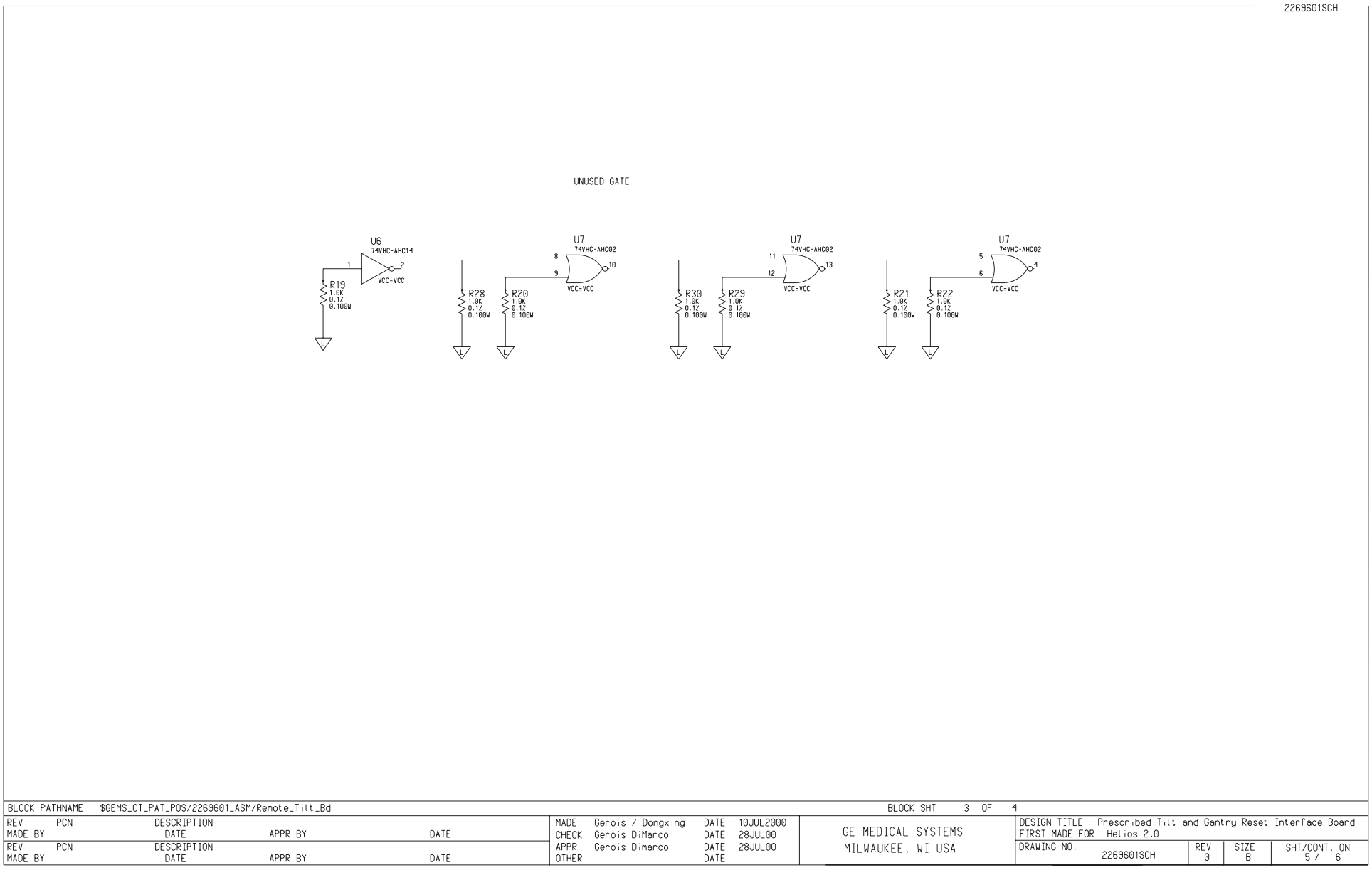
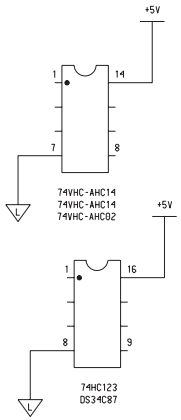


Figure 4-45 2269601, Sheet 5, Rev 0

2269601SCH



BLOCK PATHNAME $GEMS_CT_PAT_POS/2269601_ASM/Remote_Tilt_Bd					BLOCK SHT 4 OF 4		
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE	MADE Gerois / Dongxing DATE 10JUL2000 CHECK Gerois DiMarco DATE 28JUL00 APPR Gerois Dimarco DATE 28JUL00 OTHER DATE	GE MEDICAL SYSTEMS MILWAUKEE, WI USA	DESIGN TITLE Prescribed Tilt and Gantry Reset Interface Board FIRST MADE FOR Helios 2.0				
REV PCN DESCRIPTION MADE BY DATE APPR BY DATE			DRAWING NO. 2269601SCH	REV 0	SIZE B	SHT/CONT. ON 6 / -	

Figure 4-46 2269601, Sheet 6, Rev 0

Section 8.0 — ICE Box (VME) Backplane - 2141161

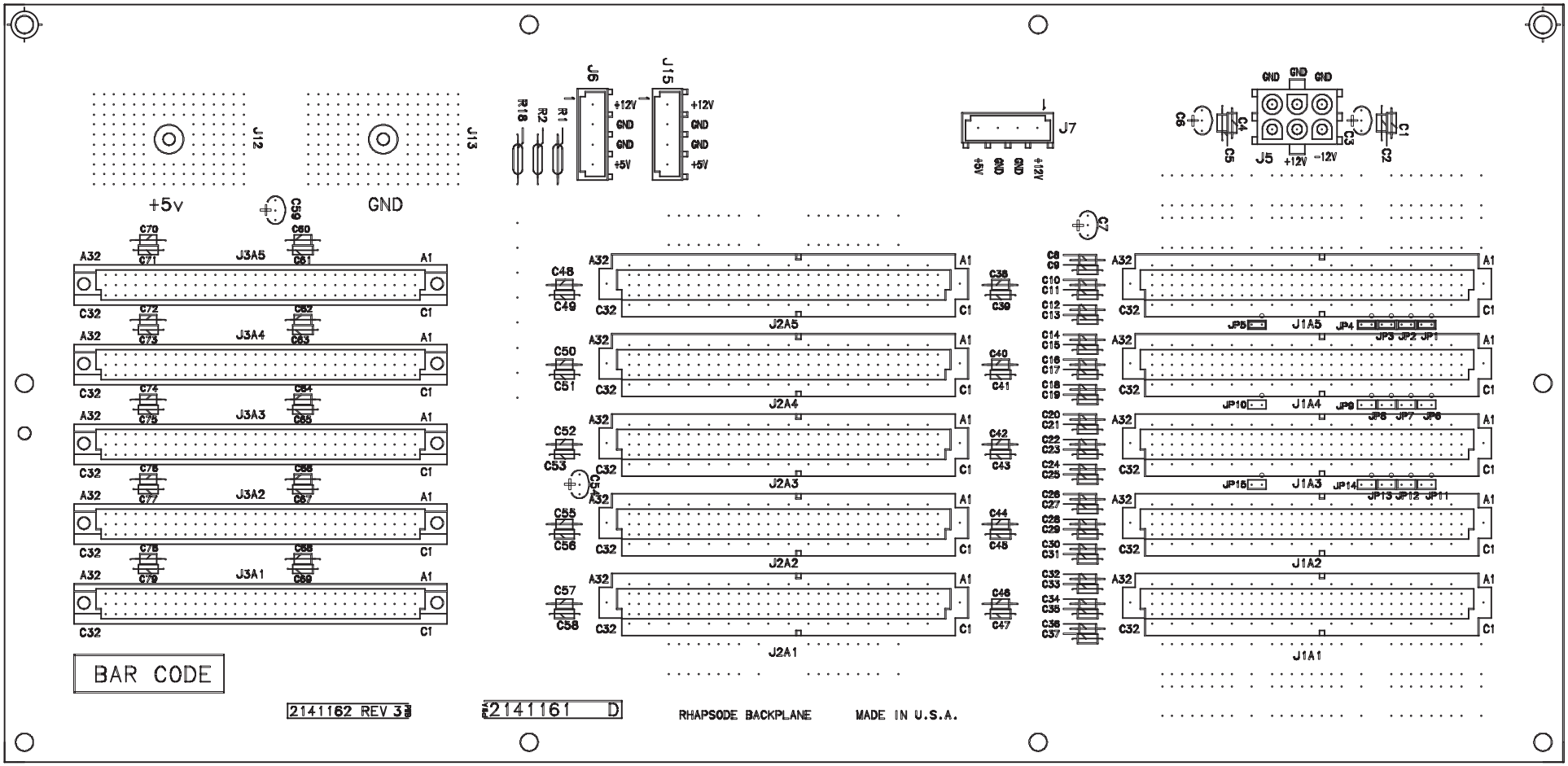


Figure 4-47 ICEbox Backplane Layout (Sheet 1, Rev 3)



GE MEDICAL SYSTEMS

GE MEDICAL SYSTEMS-AMERICAS: FAX 414.544.3384
P.O. BOX 414; MILWAUKEE, WISCONSIN 53201-0414, U.S.A.

GE MEDICAL SYSTEMS-EUROPE: FAX 33.1.40.93.33.33
PARIS, FRANCE

GE MEDICAL SYSTEMS-ASIA: FAX 65.291.7006