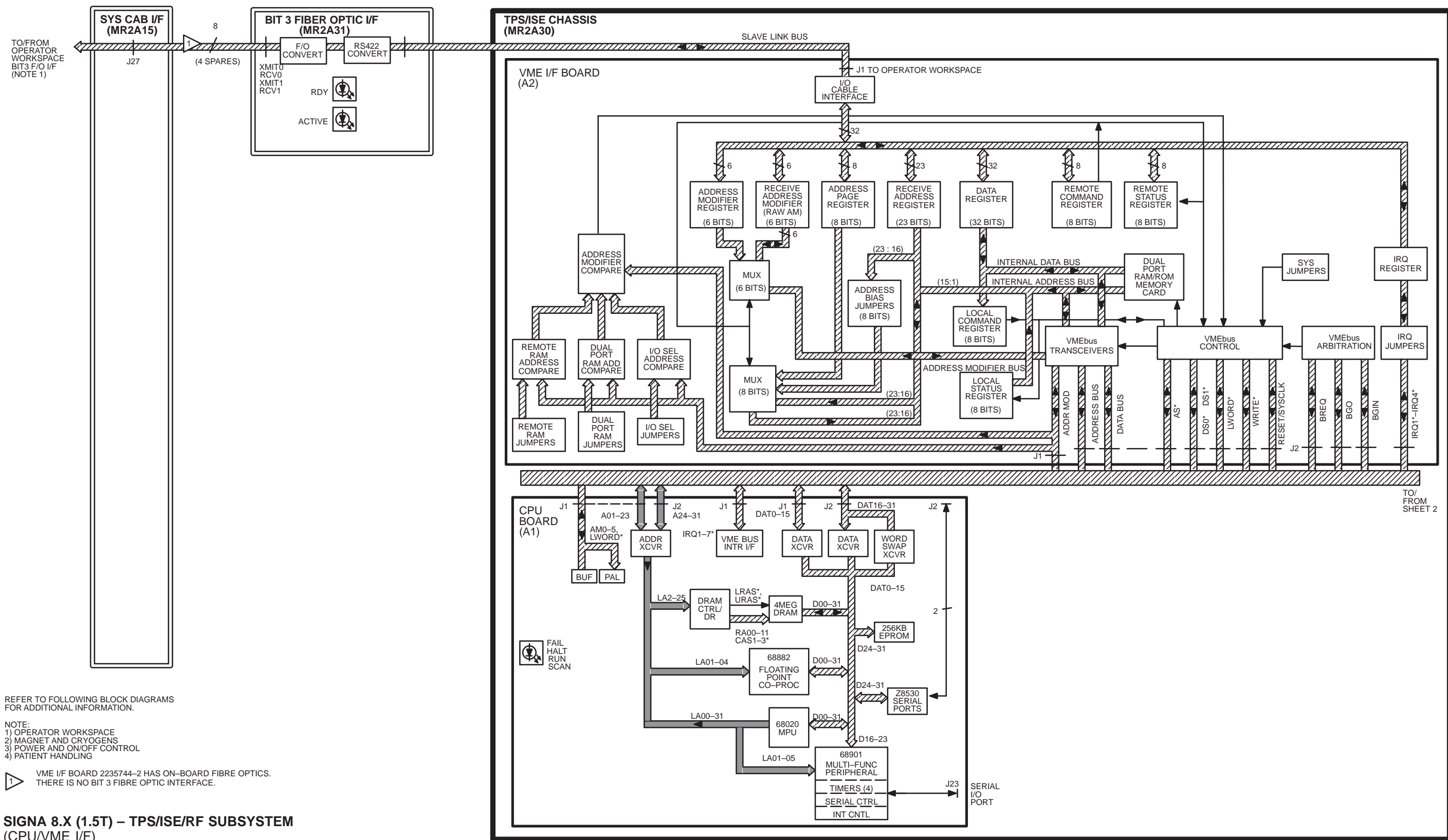


# TPS/ISE (1.5T)

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
<b>SECTION 1 – ISE/RF BLOCK DIAGRAMS (1.5T)</b> .....	1-1
<b>SECTION 2 – RF SUPPLEMENTAL SCHEMATICS (1.5T)</b>	
DUAL DIRECTIONAL COUPLER SCHEMATIC (46-264288S) ( <b>NOTE 1</b> ) .....	2-1
HEAD & BODY PREAMP SCHEMATIC (46-264442S) .....	2-3
DYNAMIC DISABLE FILTER MODULE SCHEMATIC (46-264776S) ( <b>NOTE 1</b> ) ....	2-4
HEAD T/R SWITCH SCHEMATIC (46-264988S) .....	2-5
BODY T/R SWITCH/SPLITTER SCHEMATIC (46-321314S) .....	2-6
 <b>NOTE 1 – THIS SCHEMATIC IS ALSO USED IN 1.0T SYSTEMS.</b>	

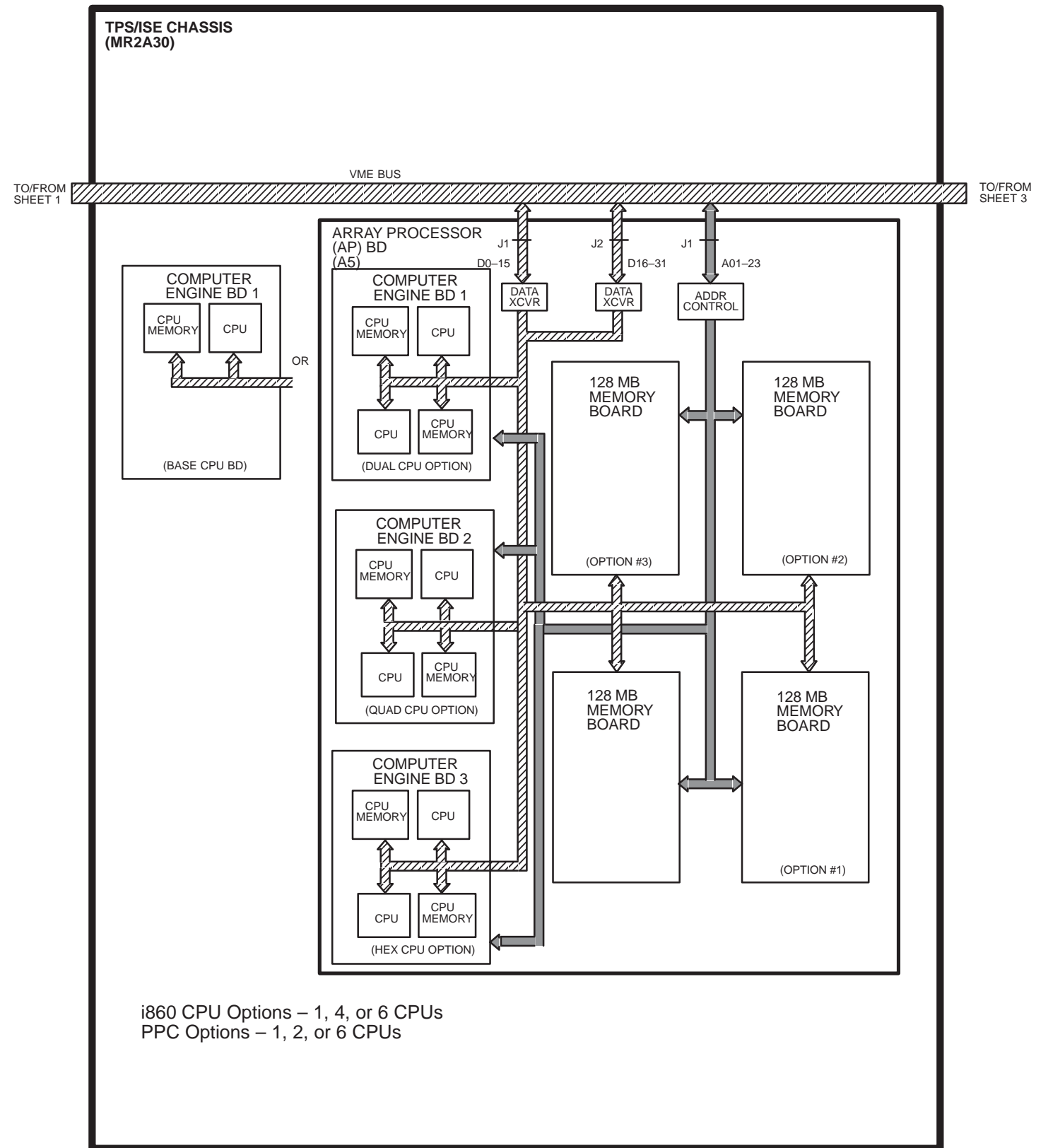


REFER TO FOLLOWING BLOCK DIAGRAMS FOR ADDITIONAL INFORMATION.

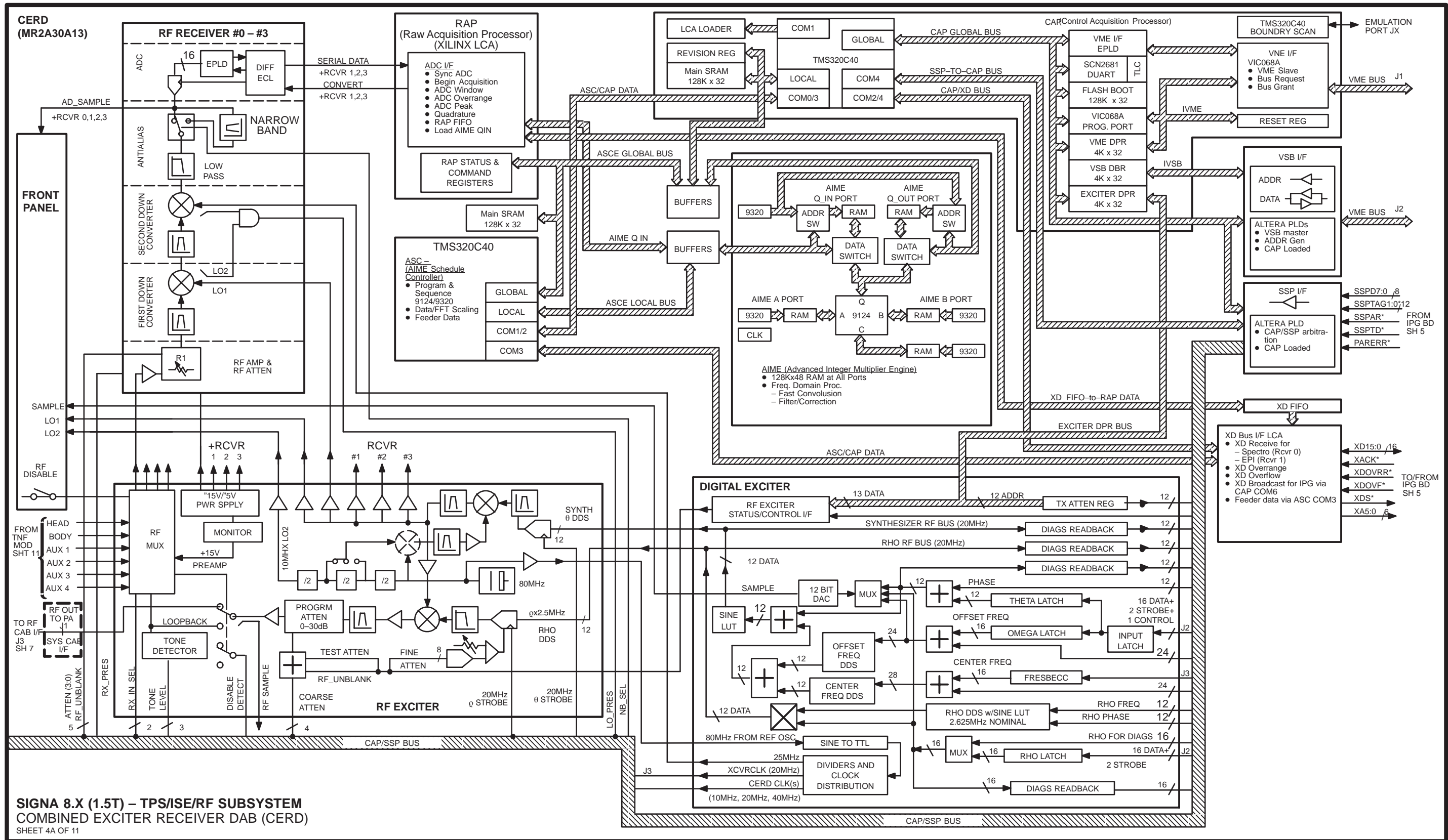
- NOTE:
- 1) OPERATOR WORKSPACE
  - 2) MAGNET AND CRYOGENS
  - 3) POWER AND ON/OFF CONTROL
  - 4) PATIENT HANDLING

1 VME I/F BOARD 2235744-2 HAS ON-BOARD FIBRE OPTICS. THERE IS NO BIT 3 FIBRE OPTIC INTERFACE.

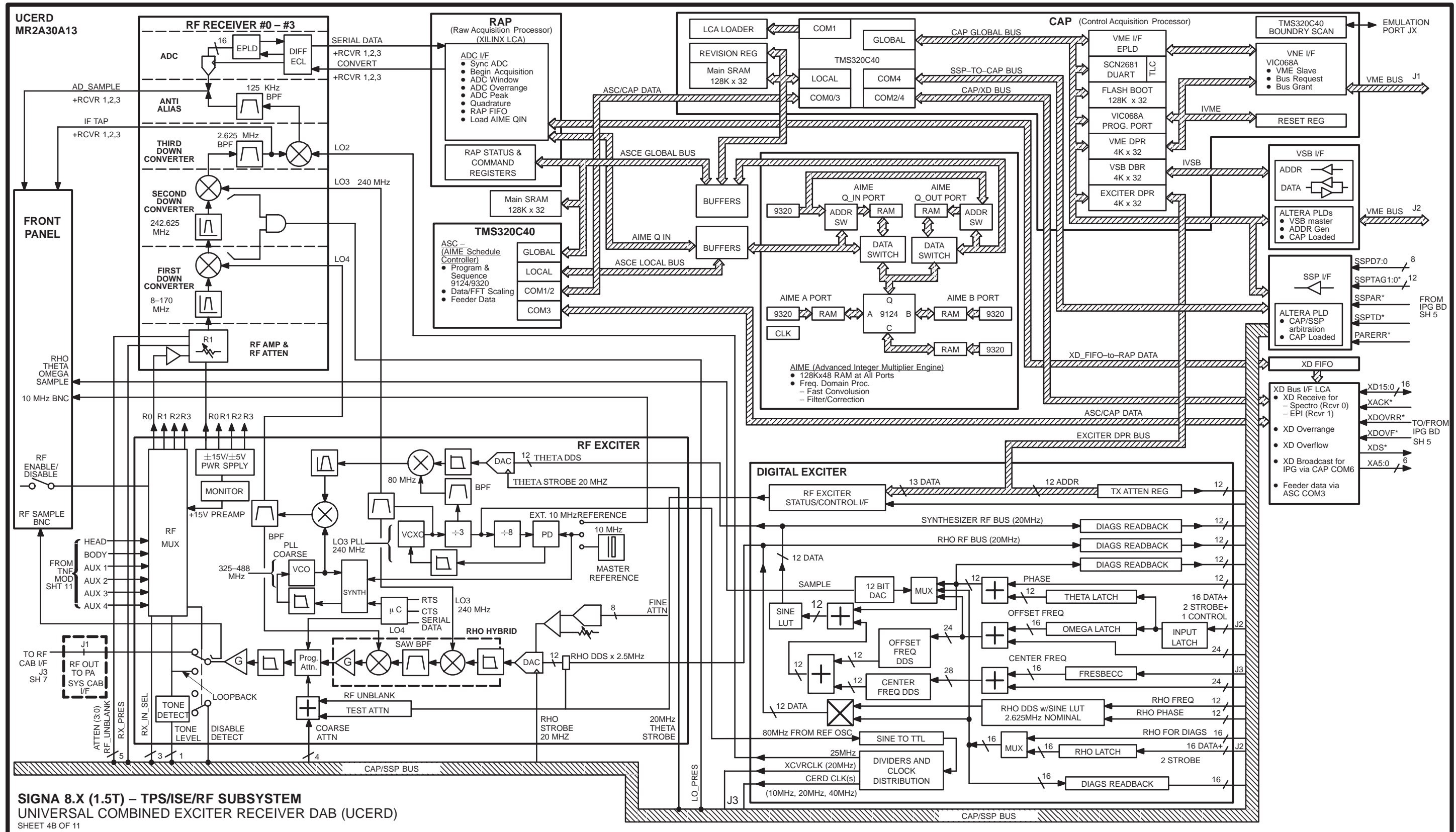
**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
(CPU/VME I/F)



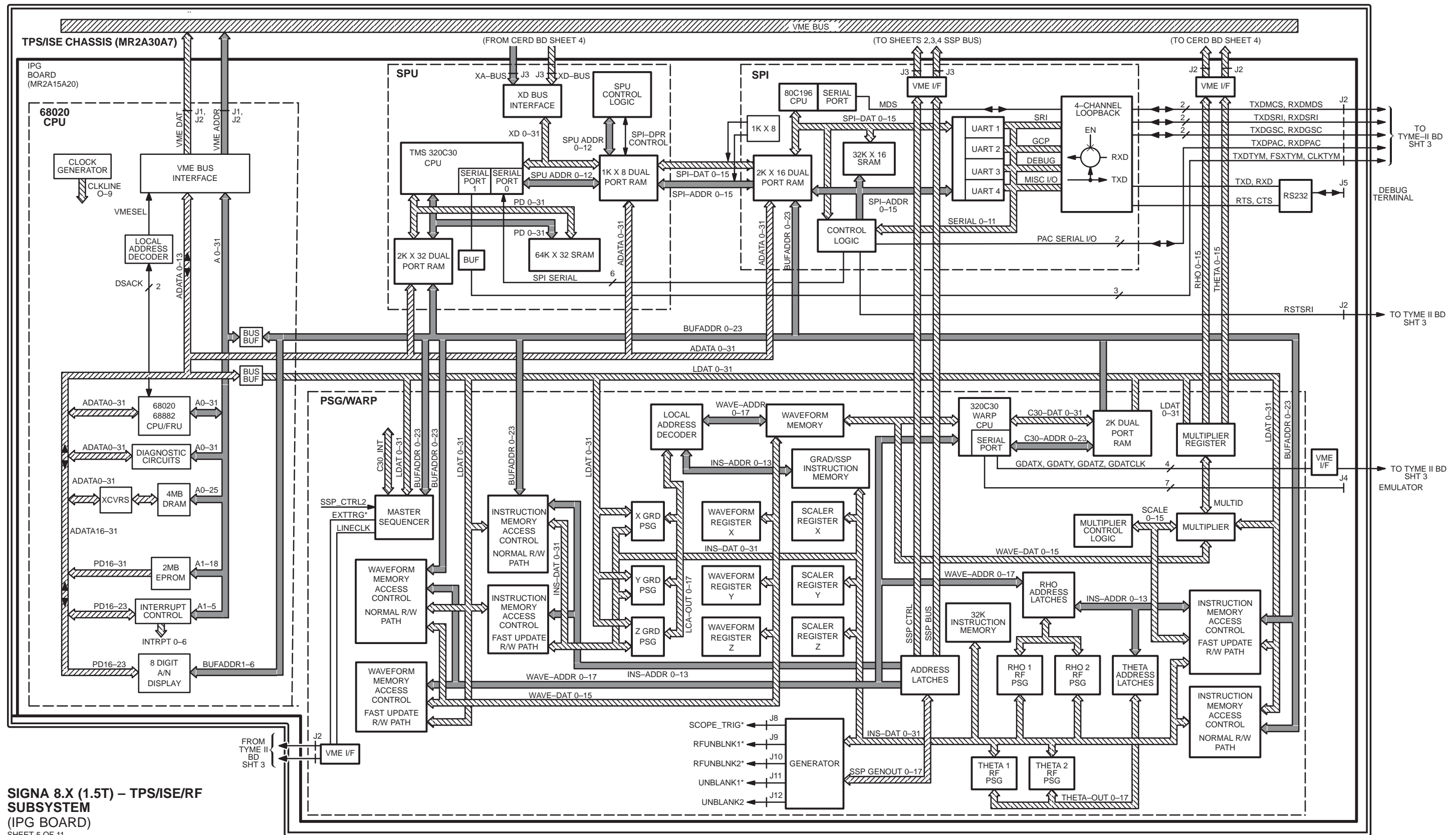




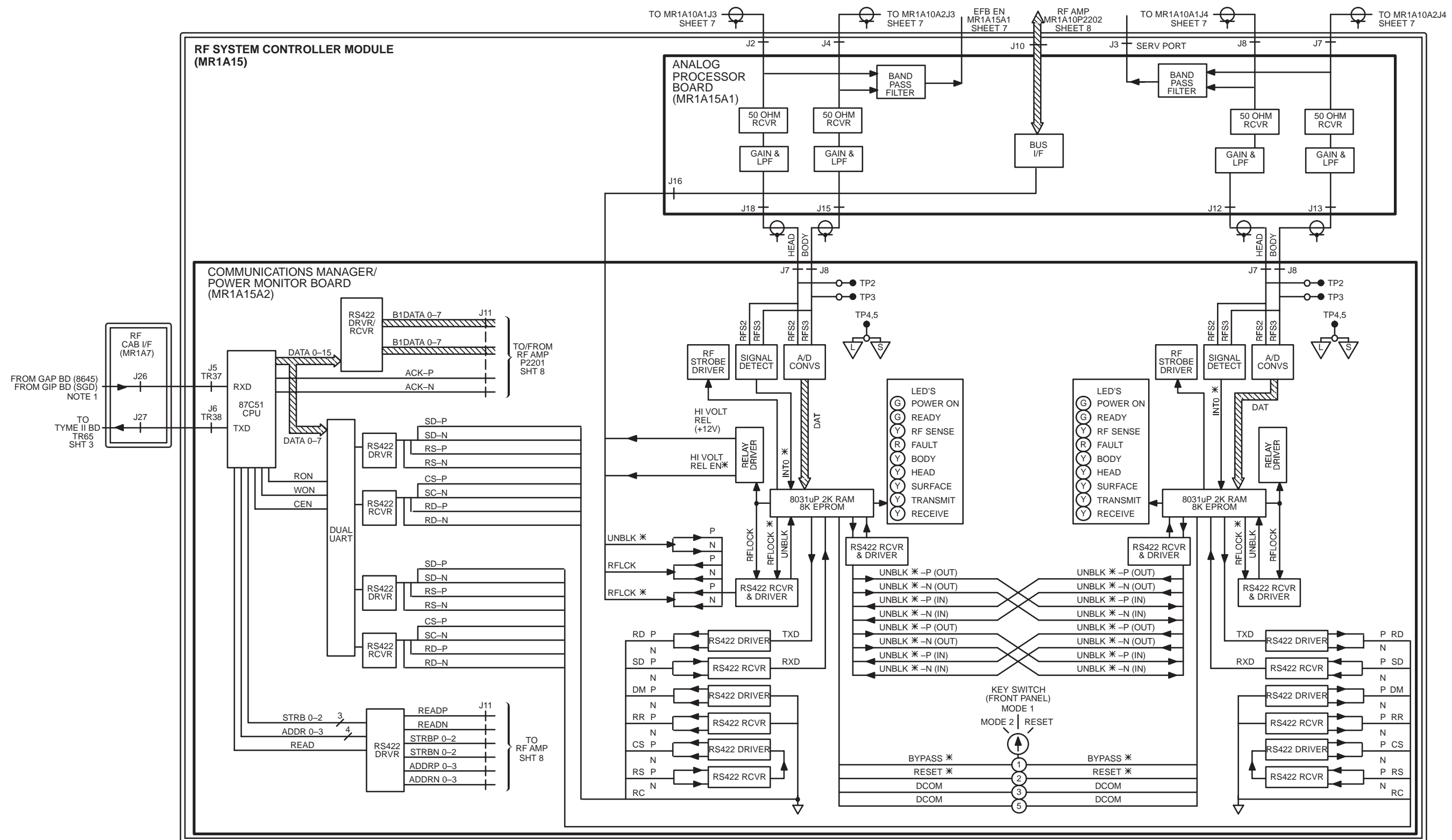
**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
**COMBINED EXCITER RECEIVER DAB (CERD)**  
 SHEET 4A OF 11



**SIGNA 8.X (1.5T) - TPS/ISE/RF SUBSYSTEM**  
**UNIVERSAL COMBINED EXCITER RECEIVER DAB (UCERD)**  
 SHEET 4B OF 11

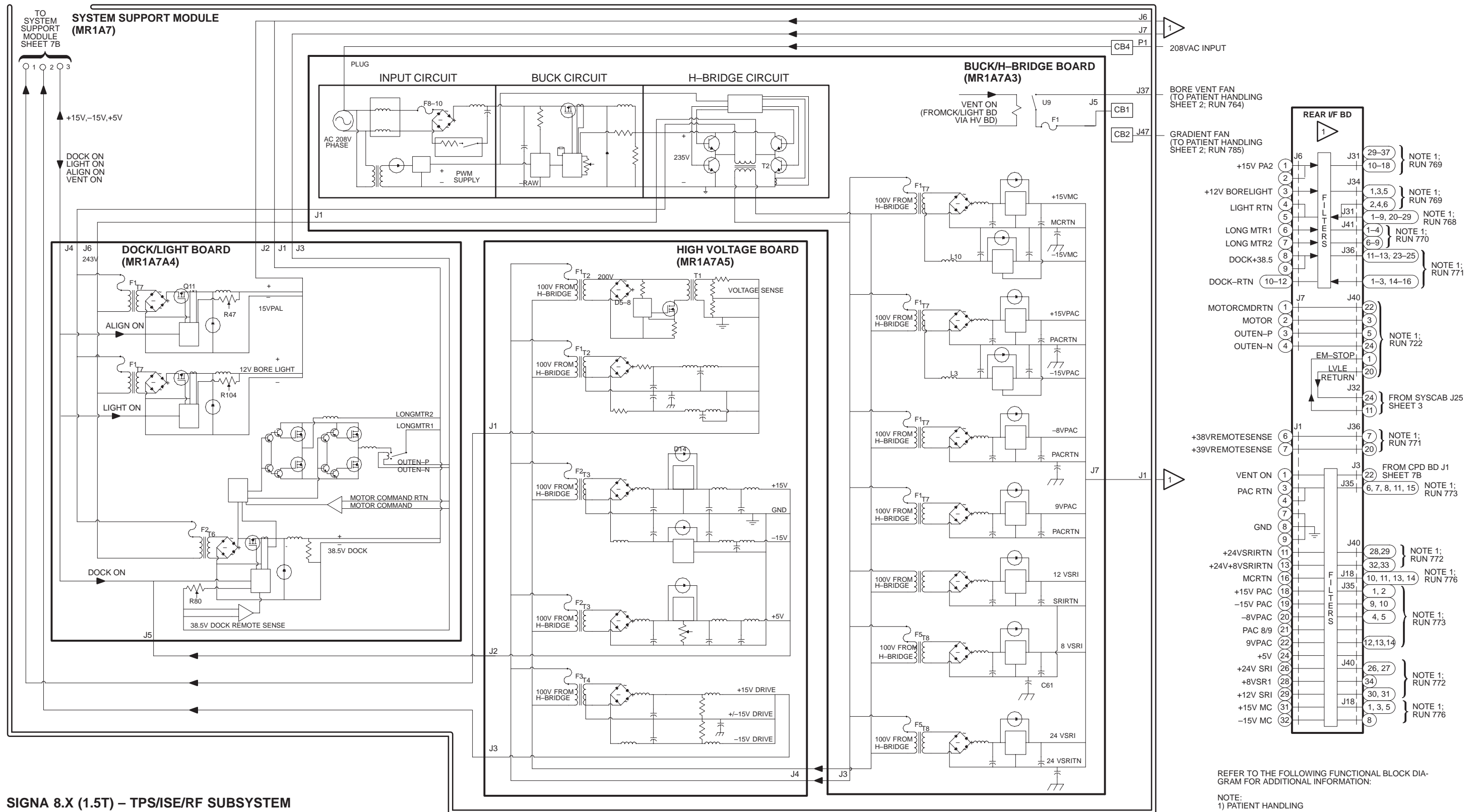


**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
(IPG BOARD)  
SHEET 5 OF 11



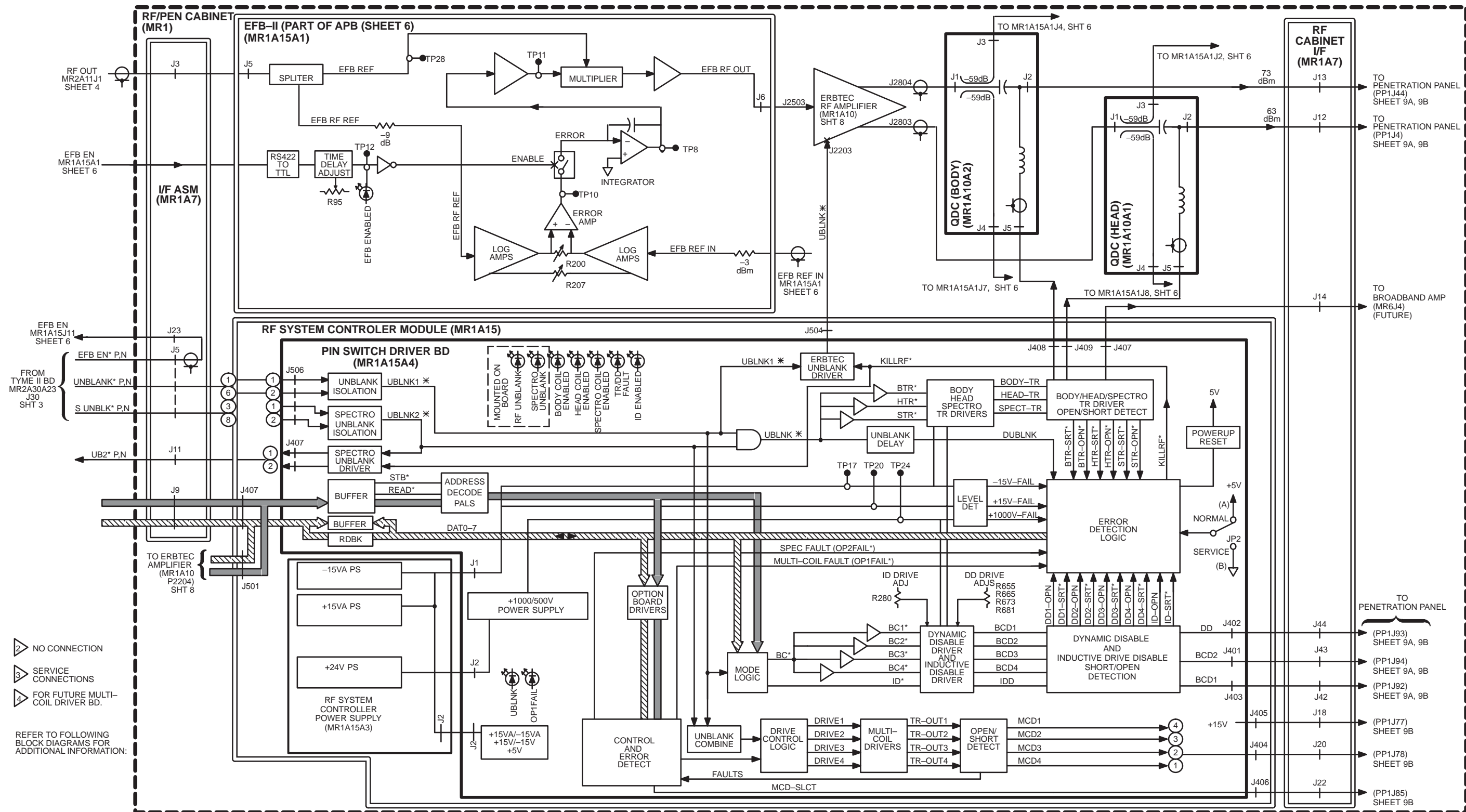
**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
 (RF/PEN CAB – COMMUNICATIONS MANAGER/POWER MONITOR)  
 SHEET 6A OF 11

REFER TO THE FOLLOWING FUNCTIONAL BLOCK  
 DIAGRAMS FOR ADDITIONAL INFORMATION:  
 NOTES:  
 1. GRADIENT



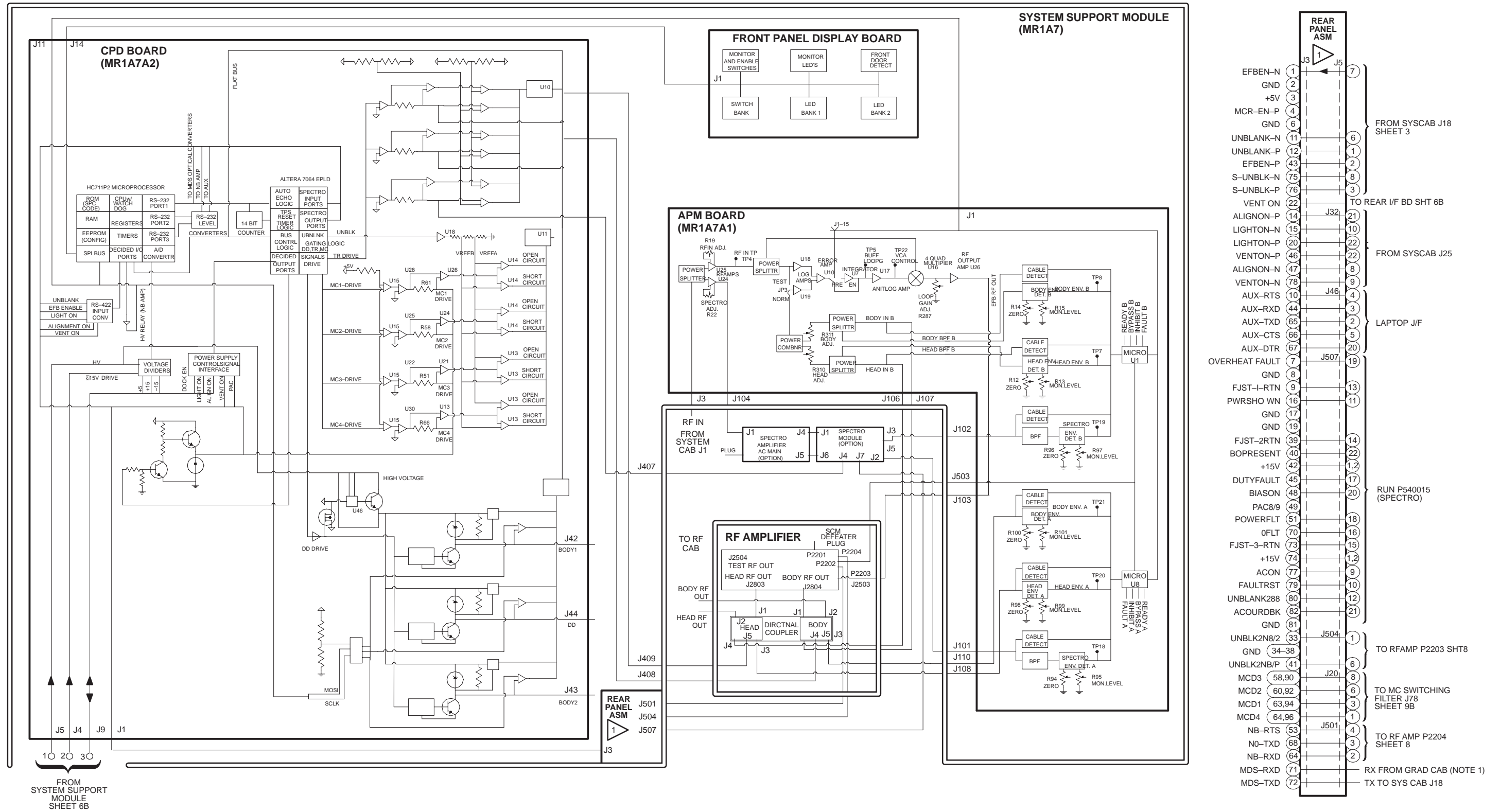
SIGNA 8.X (1.5T) - TPS/ISE/RF SUBSYSTEM  
(RF PEN II CABINET - SYSTEM SUPPORT MODULE)  
SHEET 6B OF 11

REFER TO THE FOLLOWING FUNCTIONAL BLOCK DIAGRAM FOR ADDITIONAL INFORMATION:  
NOTE:  
1) PATIENT HANDLING



**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
 (RF/PEN CAB – ENVELOPE FEEDBACK-II, PIN SWITCH DRIVER BOARD)  
 SHEET 7A OF 11

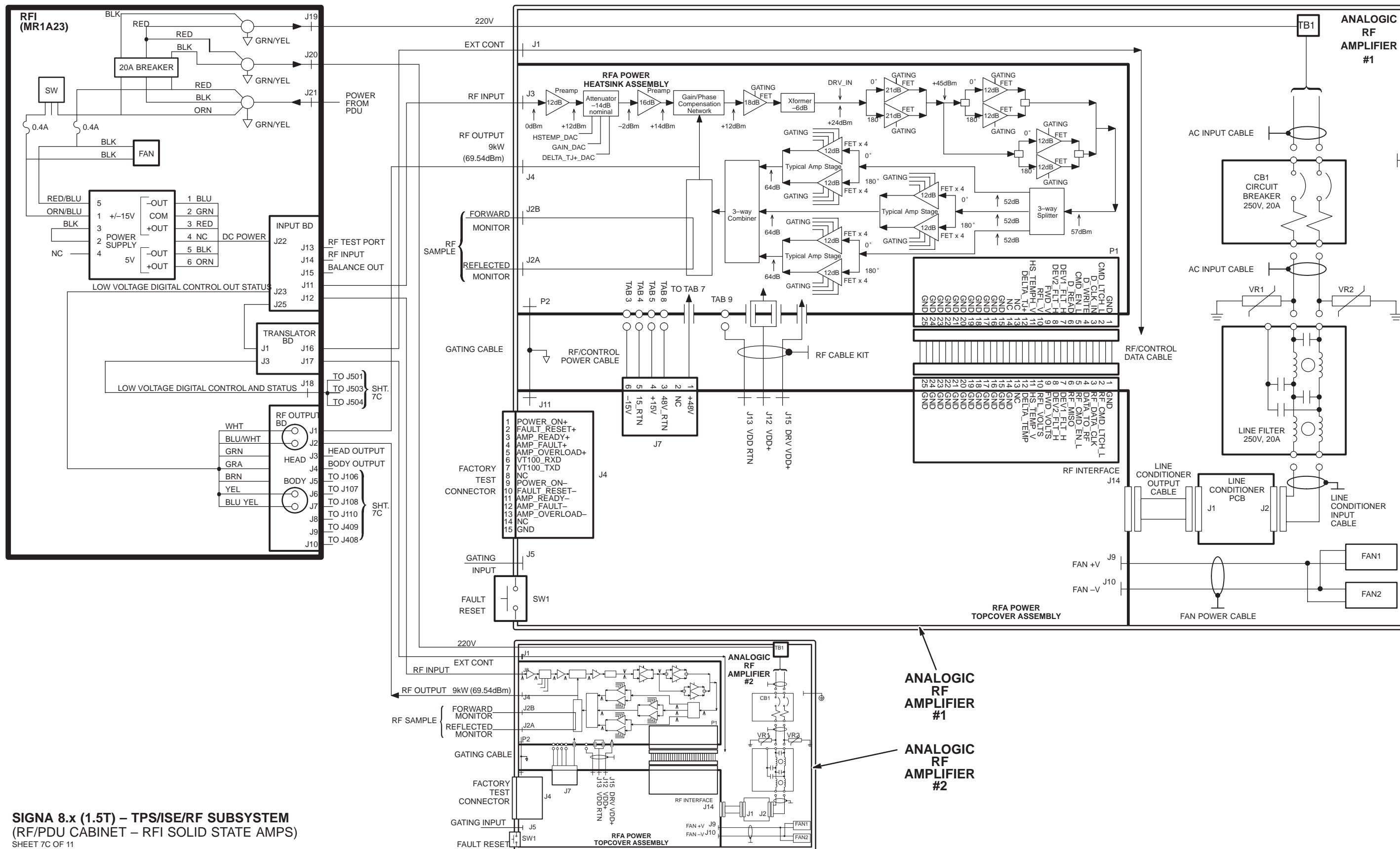
M3081B



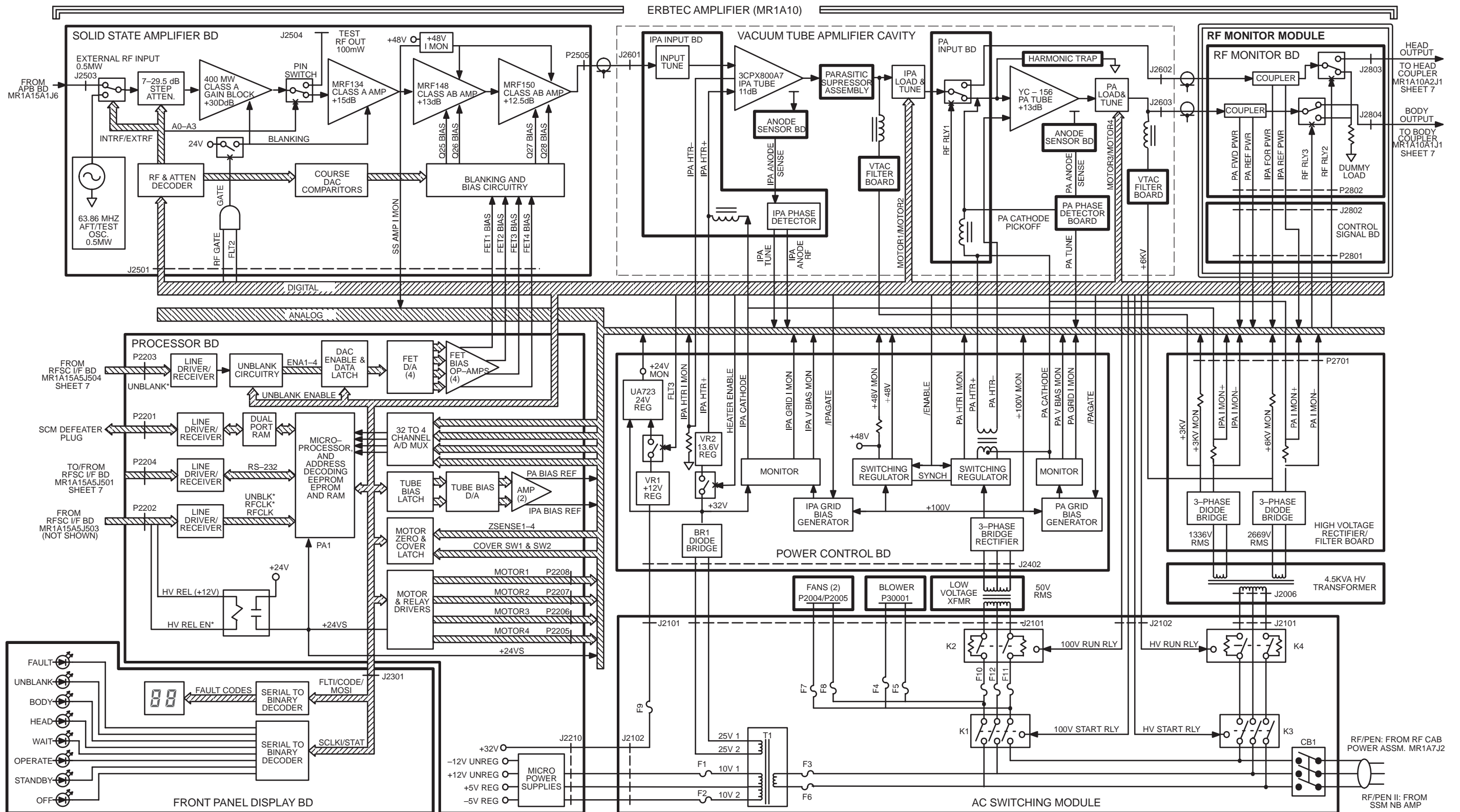
**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
(RF PEN II CABINET – SYSTEM SUPPORT MODULE)  
SHEET 7B OF 11

REFER TO THE FOLLOWING FUNCTIONAL BLOCK DIAGRAM FOR ADDITIONAL INFORMATION:

NOTE:  
1) GRADIENT

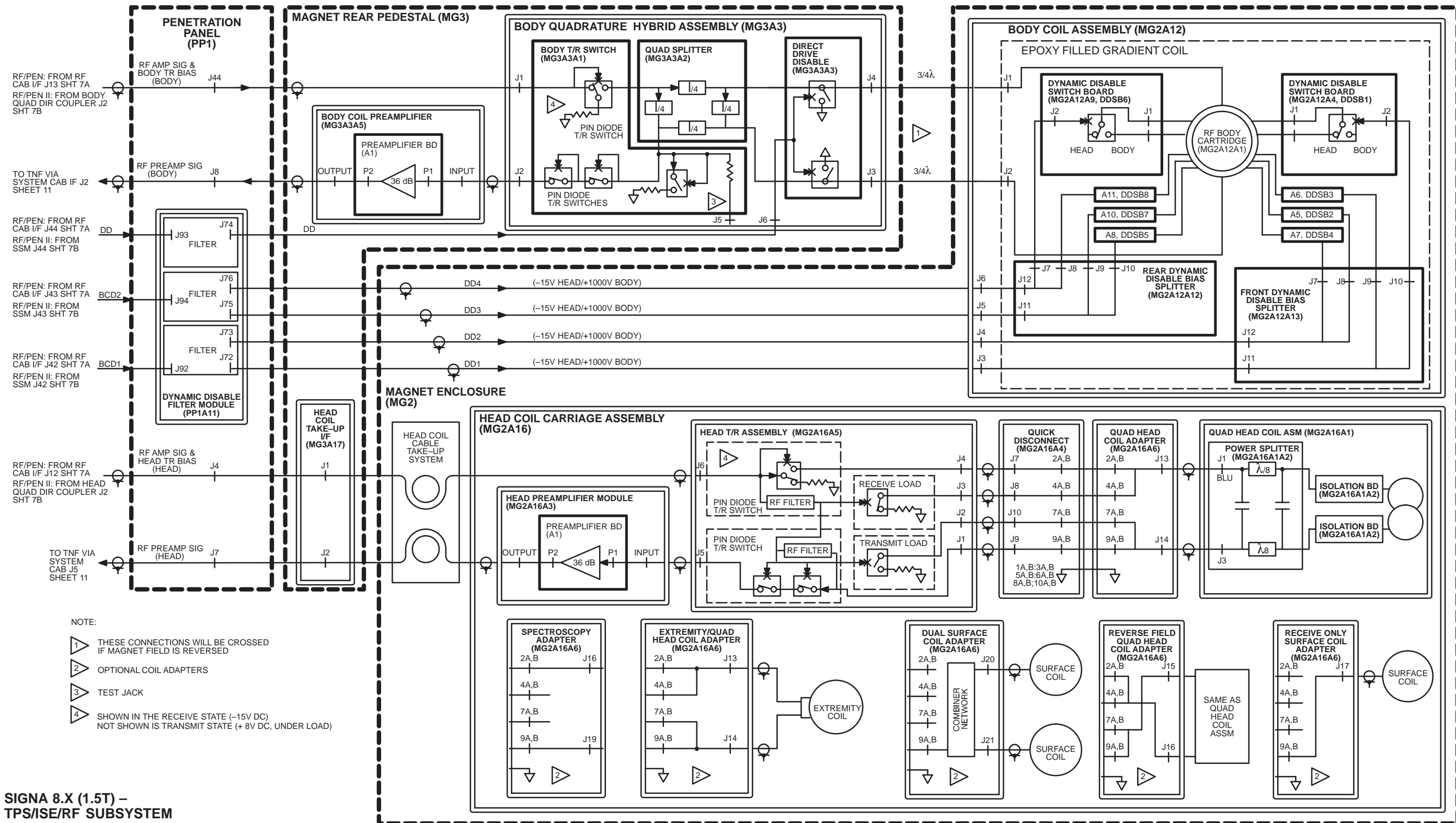


**SIGNA 8.x (1.5T) – TPS/ISE/RF SUBSYSTEM**  
(RF/PDU CABINET – RFI SOLID STATE AMPS)  
SHEET 7C OF 11

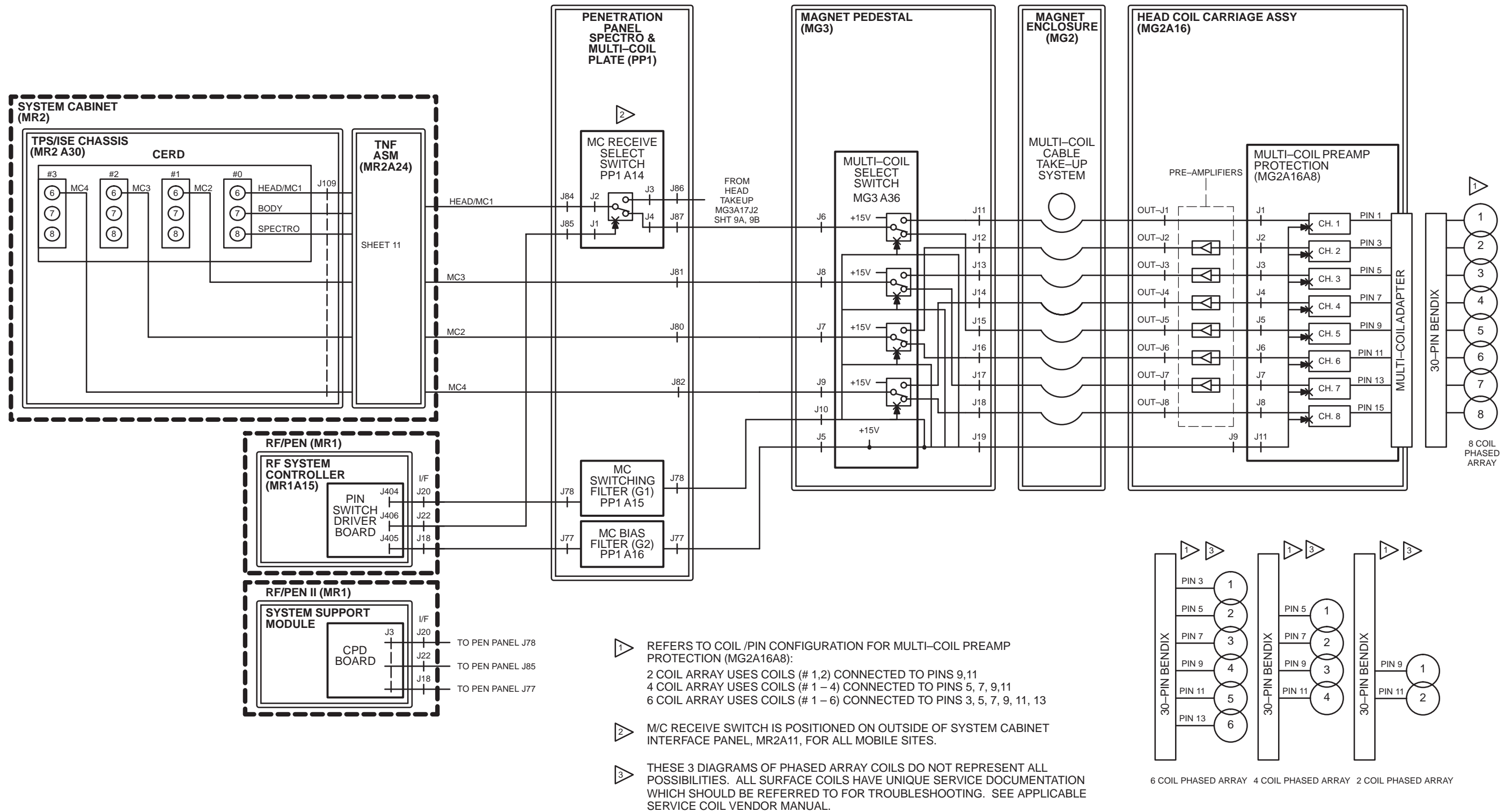


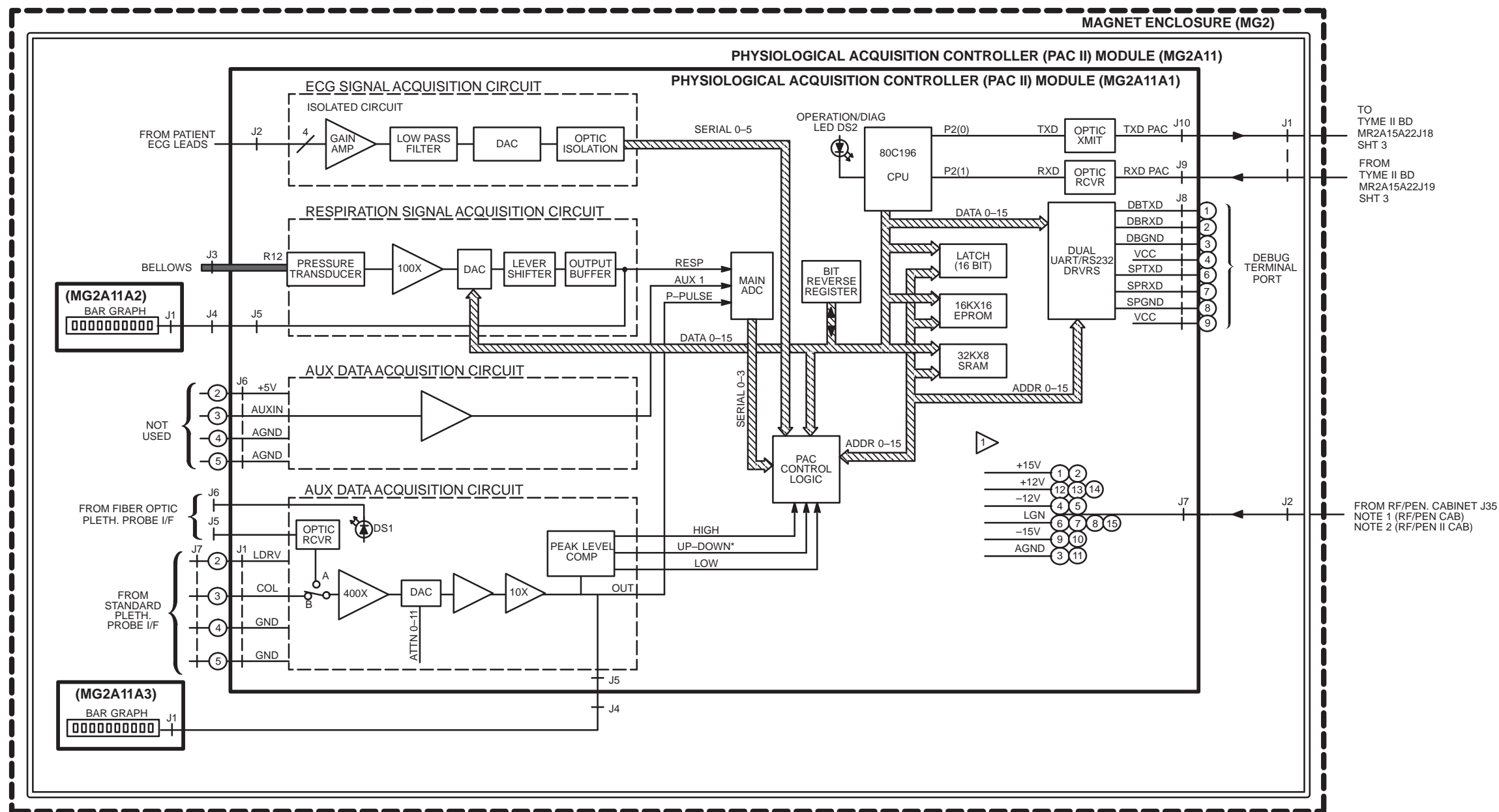
**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
 (ERBTEC 20KW RF AMPLIFIER)  
 SHEET 8 OF 11

M3081B



**SIGNA 8.X (1.5T) –  
TPS/ISE/RF SUBSYSTEM**  
(MAGNET ROOM & RELATED COMPONENTS)  
SHEET 9A OF 11

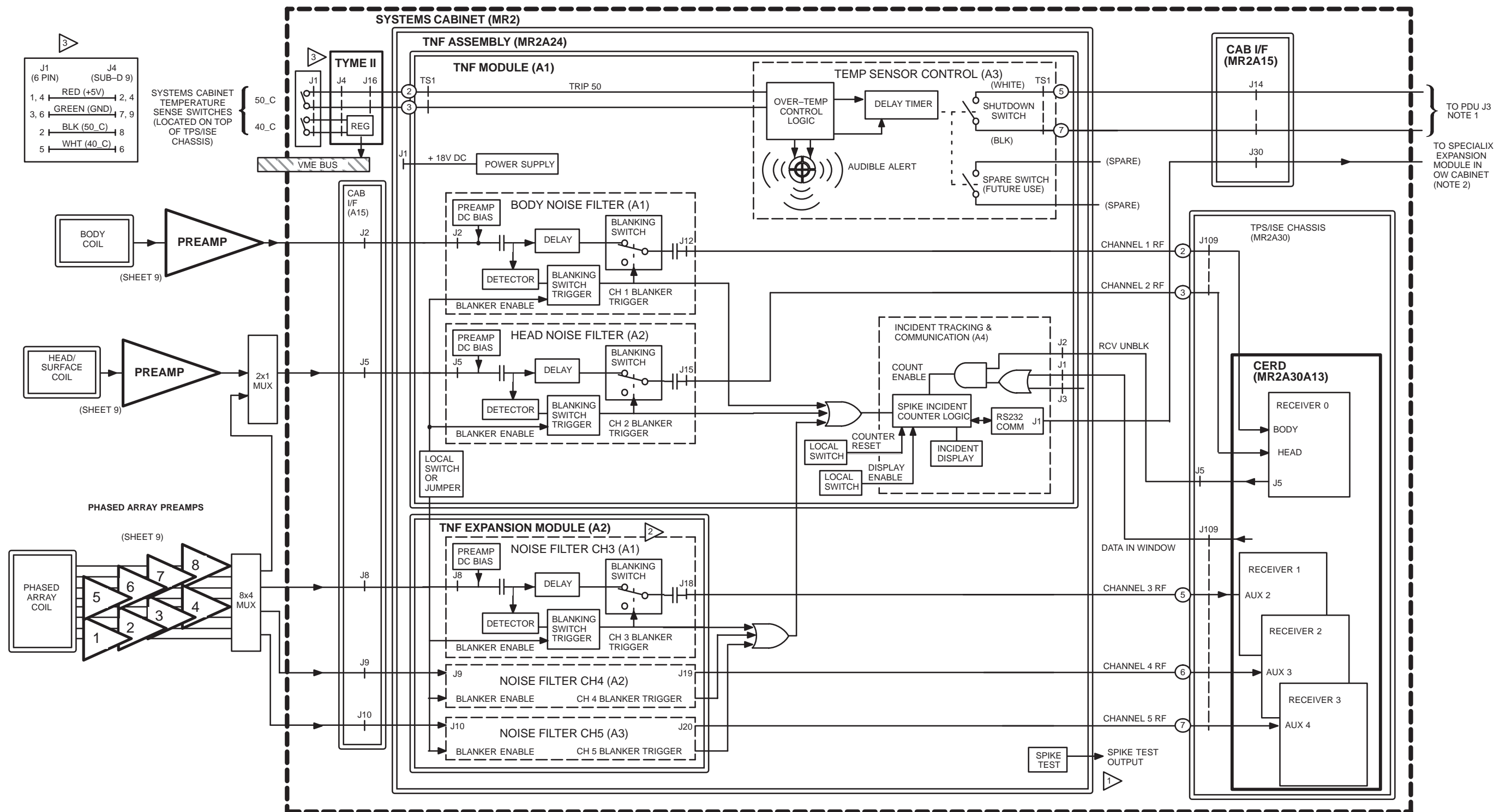




REFER TO THE FOLLOWING FUNCTIONAL BLOCK DIAGRAM FOR ADDITIONAL INFORMATION.

NOTE:  
1) PATIENT HANDLING  
2) TPS/ISE/RF

1 MULTIPLE WIRES/PINS WITH SAME SIGNAL ARE NOT SHOWN



**SIGNA 8.X (1.5T) – TPS/ISE/RF SUBSYSTEM**  
(TRANSIENT NOISE FILTER)

SHEET 11 of 11

REFER TO THE FOLLOWING FUNCTIONAL BLOCK DIAGRAM FOR ADDITIONAL INFORMATION.

NOTE:  
1) PDU, COMPACT PDU  
2) OPERATOR WORKSPACE

- 1 CONNECT TO ANY DESIRED CHANNEL INPUT VIA COAX FOR TEST PERIOD ONLY
- 2 HARDWARE PRESENT ONLY WITH PHASED ARRAY OPTION.

CONT ON SHEET 2 SHT NO. 1  
 46-264288-S  
 DRAWING NO.

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-  
 APPLIED PRACTICES  
 46-208600

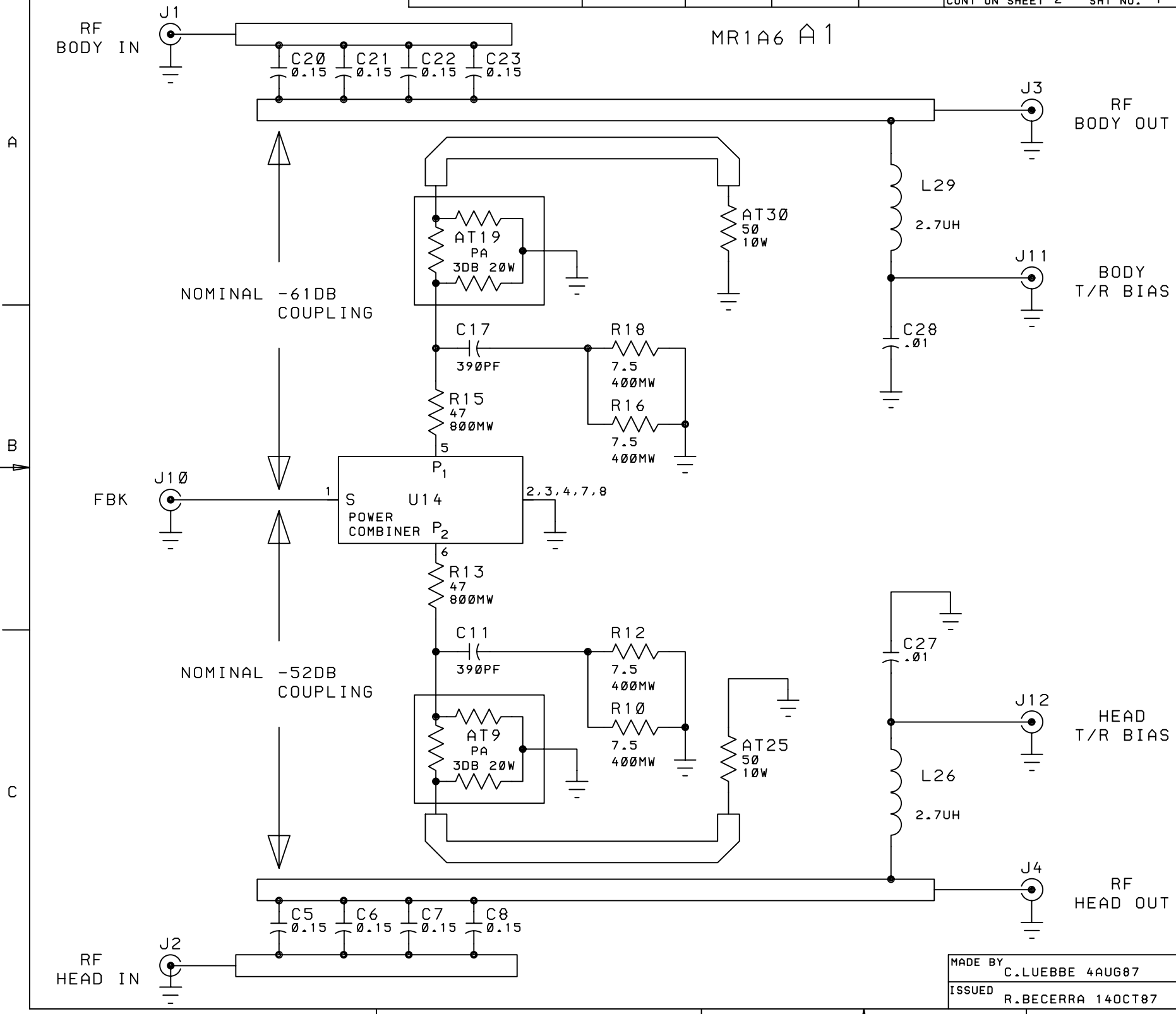
REV AH  
 46-264288-S  
 CONT ON SHEET 2 SHT NO. 1

TITLE  
 SCHEMATIC DIAGRAM  
 DUAL DIRECTIONAL COUPLER  
 FIRST MADE FOR MRDDAMP

46-264288-S  
 CONT ON SHEET 2 SHT NO. 1

46-264288G1-D

MR1A6 A1



THE REVISION NUMBER OF THIS SHEET IS THE CONTROL NUMBER OF THIS ENTIRE DOCUMENT. THIS REVISION NUMBER MUST INCREASE WHENEVER ANY SHEET IS CHANGED. THE CHANGE MUST BE RECORDED IN THE FORM BELOW.

PCN#	-----	158051	158445	171514	171706	171687	-----
DATE	-----	12MAY89	13MAR90	21FEB91	02MAY91	08MAY91	-----
SHT	2	AA	AB	AC	AD	AE	AF

NOTES:  
 1. UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS ARE 0.25W, 5%  
 AND ARE IN OHMS.

REVISIONS		PRINTS TO	
AD	FEP 16MAY89	AG	FEP 2MAY91
PCN	158051	PCN	171706
AE	DLW 13MAR90	AH	FEP 8MAY91
PCN	158445	PCN	171687
AF	DPB 21FEB91	NR	DLW 30JAN89
PCN	171514	ADDED	G2

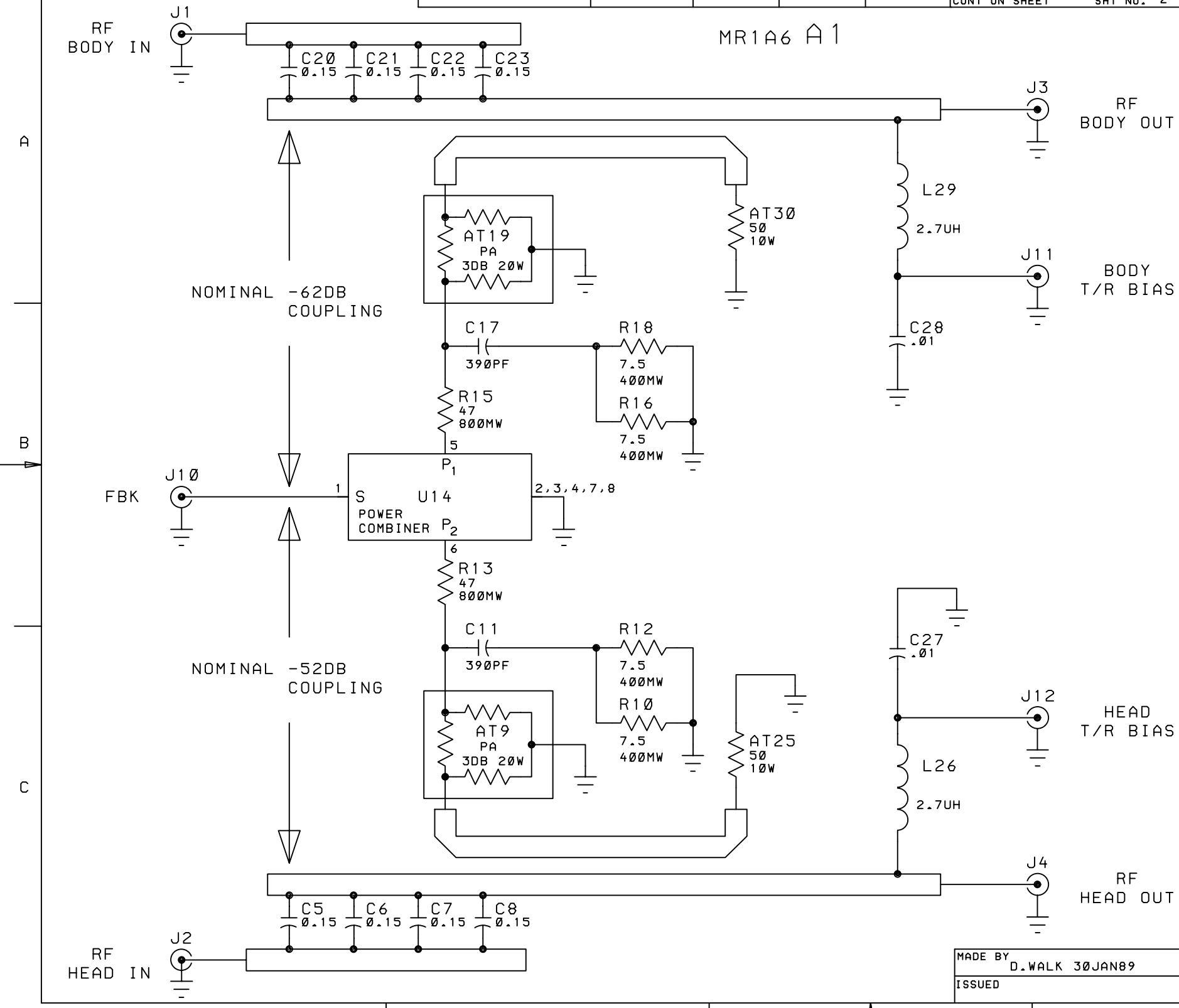
MADE BY C. LUEBBE 4AUG87  
 ISSUED R. BECERRA 14OCT87  
 APPROVALS RCR 15OCT87  
 MEDICAL SYSTEMS DIV OR DEPT MILWAUKEE, WI LOCATION  
 46-264288-S  
 CONT ON SHEET 2 SHT NO. 1

2 ON IHS - 133HS NO 1NO2  
S-882492-97  
DRAWING ON 9N1MWD

46-264288-S  
CONT ON SHEET - SHT NO 2

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-				REV	AF
APPLIED PRACTICES				46-264288-S	
46-208600				CONT ON SHEET - SHT NO. 2	

TITLE  
SCHEMATIC DIAGRAM  
DUAL DIRECTIONAL COUPLER  
FIRST MADE FOR MRDDAMP



46-264288G2-B

REVISIONS				PRINTS TO	
AE	FEP	2MAY91	AB	FEP	16MAY89
	PCN	171706		PCN	158051
AF	FEP	8MAY91	AC	DLW	13MAR90
	PCN	171687		PCN	158445
			AD	DPB	21FEB91
				PCN	171514

46-264288-S

MADE BY D.WALK 30JAN89  
ISSUED

APPROVALS  
MEDICAL SYSTEMS DEPT  
MILWAUKEE, WI LOCATION  
46-264288-S  
CONT ON SHEET - SHT NO. 2

CONT ON SHEET - SHT NO. 1  
 46-264442-S  
 DRAWING NO.

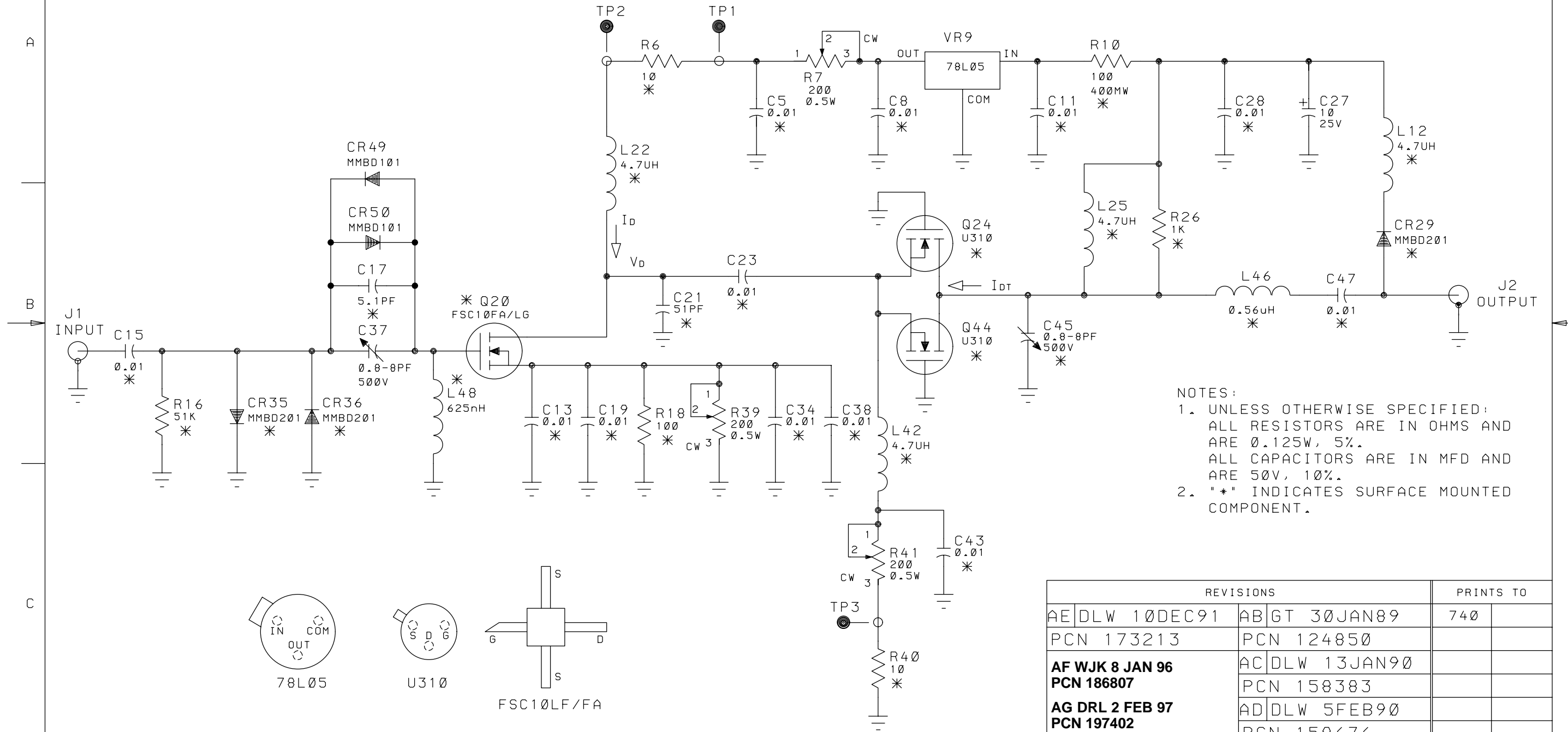
46-264442-S  
 CONT ON SHEET - SHT NO. 1

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:-				REV	AE	<b>AG</b>
APPLIED PRACTICES				46-264442-S		
46-208600				CONT ON SHEET - SHT NO. 1		

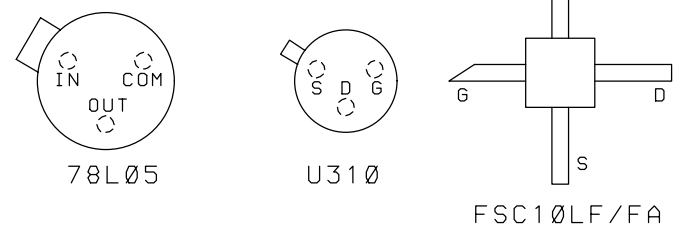
TITLE  
 SCHEMATIC DIAGRAM  
 PREAMP  
 FIRST MADE FOR MR TPS

MG2A16A3 A 1 (HEAD)  
 MG3A3A5 A 1 (BODY)

46-264442G2-A  
 46-264442G3-A



NOTES:  
 1. UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS ARE IN OHMS AND  
 ARE 0.125W, 5%.  
 ALL CAPACITORS ARE IN MFD AND  
 ARE 50V, 10%.  
 2. "\*" INDICATES SURFACE MOUNTED  
 COMPONENT.



REVISIONS		PRINTS TO	
AE	DLW 10DEC91	AB	GT 30JAN89
PCN	173213	PCN	124850
<b>AF</b>	<b>WJK 8 JAN 96</b>	AC	DLW 13JAN90
<b>PCN</b>	<b>186807</b>	PCN	158383
<b>AG</b>	<b>DRL 2 FEB 97</b>	AD	DLW 5FEB90
<b>PCN</b>	<b>197402</b>	PCN	158676

MADE BY R. LISOWSKI 14JAN88	APPROVALS R.B. 20MAR89	MEDICAL SYSTEMS MILWAUKEE, WI.	DIV OR DEPT LOCATION	46-264442-S
ISSUED R. BECERRA 24JUN88				CONT ON SHEET - SHT NO. 1

CONT. ON SHEET NO. 46-264776-97  
DRAWING NO. 46-264776-97

2

FOLD 3

4

5

FOLD 6

7

8

FOLD 9

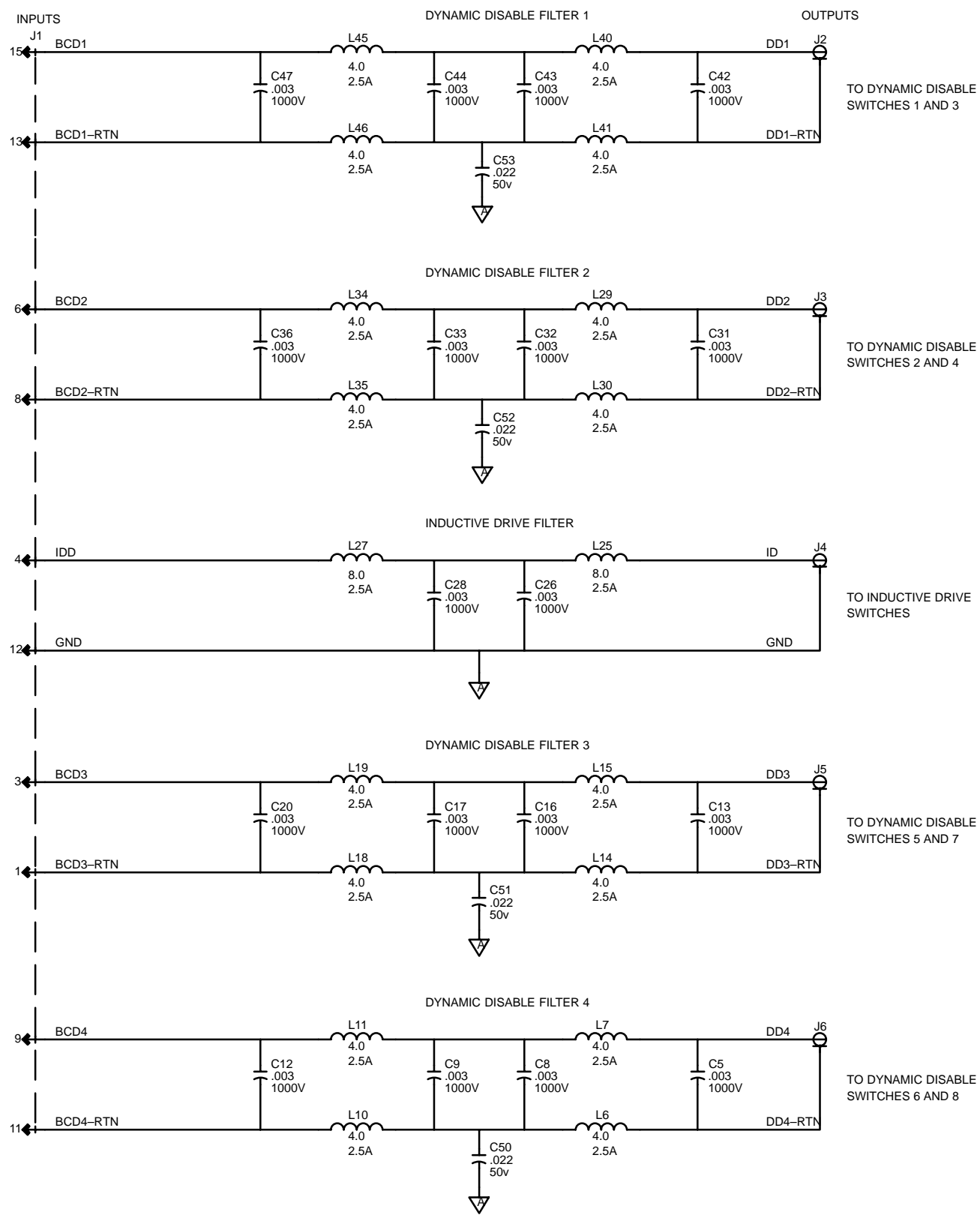
GENERAL ELECTRIC

46-264776-S

UNLESS OTHERWISE SPECIFIED:  
APPLIED PRACTICES 46-208600  
SURFACES TO BE PLATED  
DIMENSIONS ON DIMENSIONS  
DECIMALS (PLACES)  
TOLERANCES ON DIMENSIONS  
ANGLES  
46-264776-S  
CONT. ON SHEET NO.

TITLE SCHEMATIC DIAGRAM  
DYNAMIC-DISABLE-FILTER-MODULE  
FIRST MADE FOR MRSPEC4.5  
P/L ISSUED  
46-264776G1-B

PP1 A11



FROM DYNAMIC DISABLE MODULE (MR1 A9)

NOTES:

- UNLESS OTHERWISE SPECIFIED:  
ALL CAPACITORS ARE IN MFD.  
ALL INDUCTORS ARE IN uH.

REVISIONS		PRINTS TO	
B	DLW-18OCT89	740	
GEN.-CHNGS.			
C	DLW-10NOV89		
GEN.-CHNGS.			
AB	DLW-15SEP92		
PCN_173713			

MADE BY: J. BIEDLINGMAIER 15 JAN 90  
DESIGNED BY: J. BIEDLINGMAIER 15 JAN 90  
APPROVALS: RCR 15 JAN 90  
MILWAUKEE, WISCONSIN 53201  
46-264776-S  
CONT. ON SHEET NO.

46-264776-S

2

FOLD 3

4

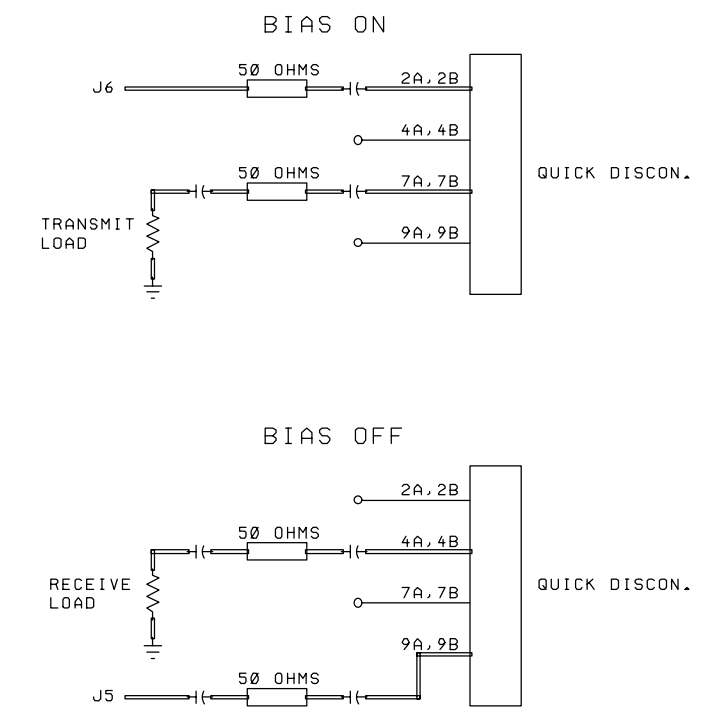
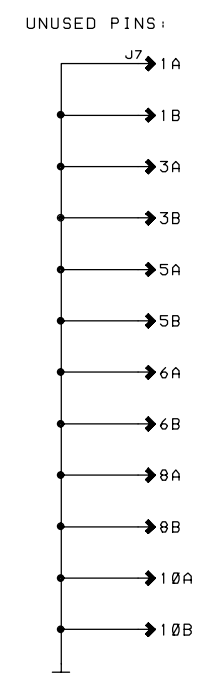
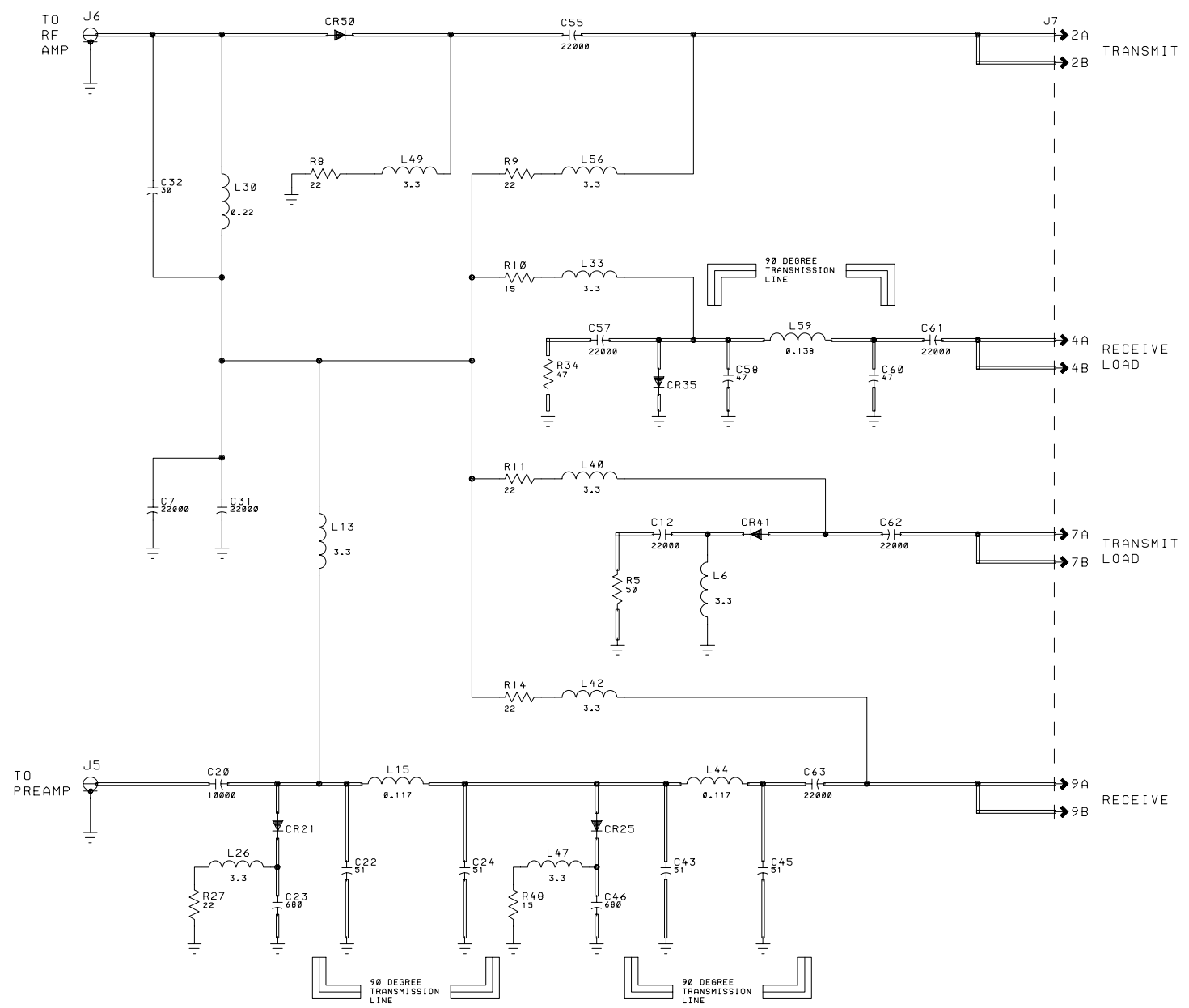
5

FOLD 6

7

8

FOLD 9



NOTES:  
 1. UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS ARE 3.0W, 1%  
 AND ARE IN OHMS.  
 ALL CAPACITORS ARE IN pF.  
 ALL INDUCTORS ARE IN uH.  
 ALL DIODES ARE UM9415.  
 2. DARKER CONNECTIONS INDICATE RF SIGNAL  
 PATHS.

REVISIONS		PRINTS TO
AD DRL 16 JUN 98	B DLW 5DEC89	740
PCN 197927	GEN. CHNGS.	
	AB DLW 20MAR90	
	PCN 158759	
	AC WJK 8 JUN 93	
	PCN 185690	

MADE BY D. WALK 27JUL89	APPROVALS RCR 12MAR90	MEDICAL SYSTEMS DEPT MILWAUKEE, WI	DIV OR 46-264988-S
ISSUED J. WALTER 23JAN90			LOCATION CONT ON SHEET - SHT NO. 1

