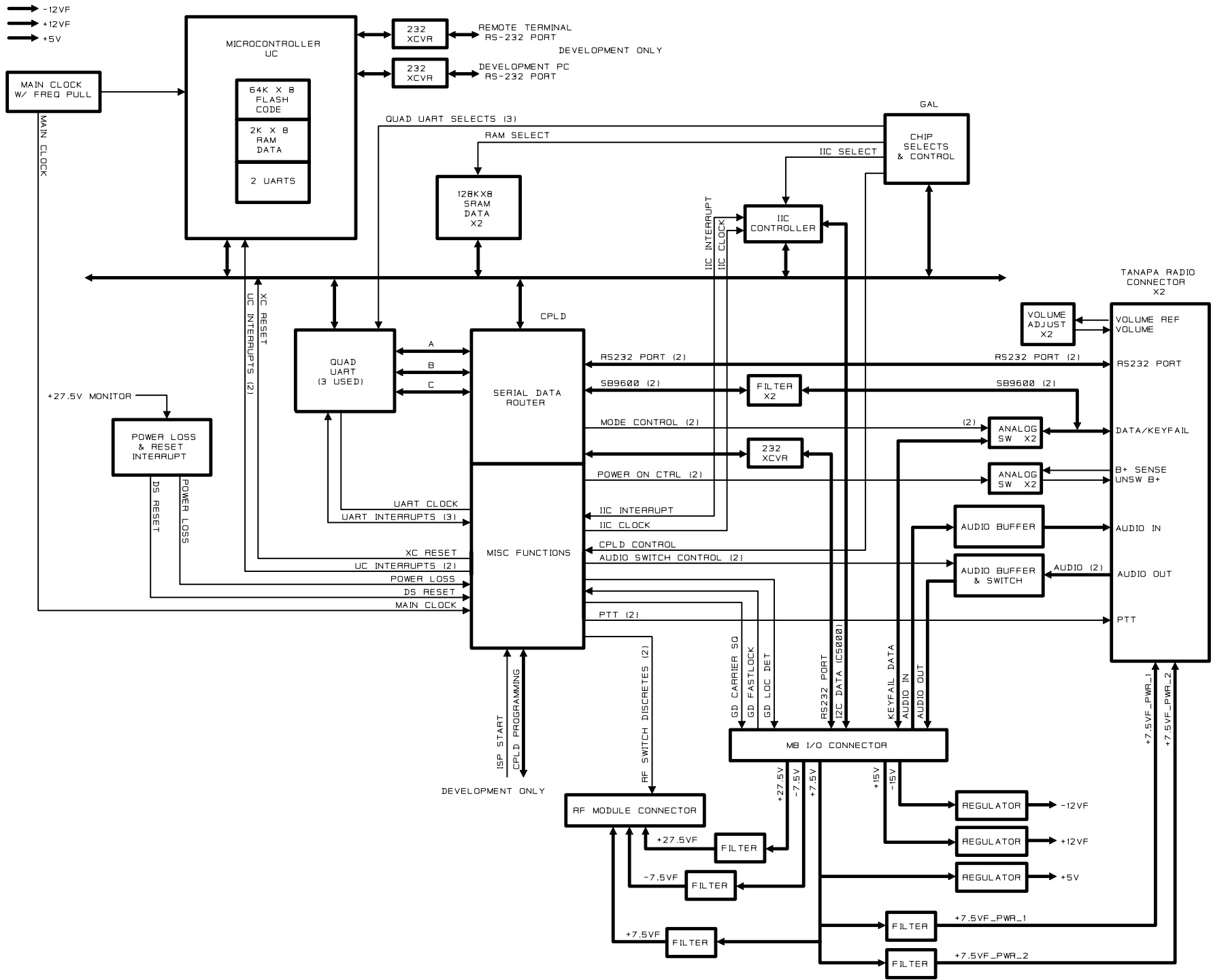


BLOCK DIAGRAM



HARDWARE ADDRESS RANGE (A19 - A1)

CODE SPACE

ADDRESS: FFFFh - 4000h
3FFFh - 3000h
2FFFh - 2000h
1FFFh - 1000h
0FFFh - 0C00h
0BFFFh - 0B00h
07FFFh - 0400h
03FFFh - 0200h
01FFFh - 0000h

DEVICE: Expansion
SRAM (Debug Area)
Empty
Empty
XAG49 Internal Flash, Block 4 (16K)
XAG49 Internal Flash, Block 3 (16K)
XAG49 Internal Flash, Block 2 (16K)
XAG49 Internal Flash, Block 1 (8K)
XAG49 Internal Flash, Block 0 (8K)

DATA SPACE

ADDRESS: FFFFh - C000h

DEVICE: Expansion

ADDRESS MODE:

8000h WR D0 CPLD Indirect
8000h WR D1 PWR_CTL_1
8002h WR D1 PWR_CTL_2
8002h WR D0 AUDIO_CTL_1
8002h WR D1 AUDIO_CTL_2
8004h WR D0 RFSCI
8004h WR D1 IOW_IW
8010h WR D3-D0 MODE_SEL_SET
8012h RD D3-D0 SERIAL_INT_STATUS
8012h RD D0 UART_INT_A
8012h RD D1 UART_INT_B
8012h RD D2 UART_INT_C
8012h RD D3 IIC_INT
8014h WR D0 GD_LOC_DET
8014h WR D1 GD_CARRIER_SO
8014h RD D0 GD_FASTLOCK
8018h WR D0 INT_PTT1
8018h WR D1 INT_PTT2

A800h UART D (UNUSED)
A000h UART C
9800h UART B
9000h UART A

8000h IIC Controller Indirect
8000h S0, S0*, S2, or S3 register
8002h S1 register

7FFFh - 4000h Expansion SRAM Indirect
3FFFh - 3080h External SRAM (Debug Area) Indirect
307Fh - 3060h External SRAM (Debug Area) Indirect
Off-Chip Special Function Registers Direct
Replication of 007Fh - 0060h
305Fh - 3044h External SRAM (Debug Area) Indirect
Special Function Registers (SFR) Direct
Replication of 005Fh - 0044h

3043Fh - 3040h External SRAM (Debug Area) Indirect
Special Function Registers (SFR) Bit, Direct
Replication of 0043Fh - 0040h
303Fh - 3084h External SRAM (Debug Area) Direct, Indirect
303Fh - 3082h External SRAM (Debug Area) Bit, Direct, Indirect
300Fh - 3002h External SRAM (Debug Area) Direct, Indirect

2FFFh - 2080h External SRAM Indirect
207Fh - 2060h External SRAM Indirect
Off-Chip Special Function Registers Direct
Replication of 007Fh - 0060h
205Fh - 2044h External SRAM Indirect
Special Function Registers (SFR) Direct
Replication of 005Fh - 0044h
2043Fh - 2040h External SRAM Indirect
Special Function Registers (SFR) Bit, Direct
Replication of 0043Fh - 0040h
203Fh - 2084h External SRAM Direct, Indirect
203Fh - 2082h External SRAM Bit, Direct, Indirect
200Fh - 2002h External SRAM Direct, Indirect

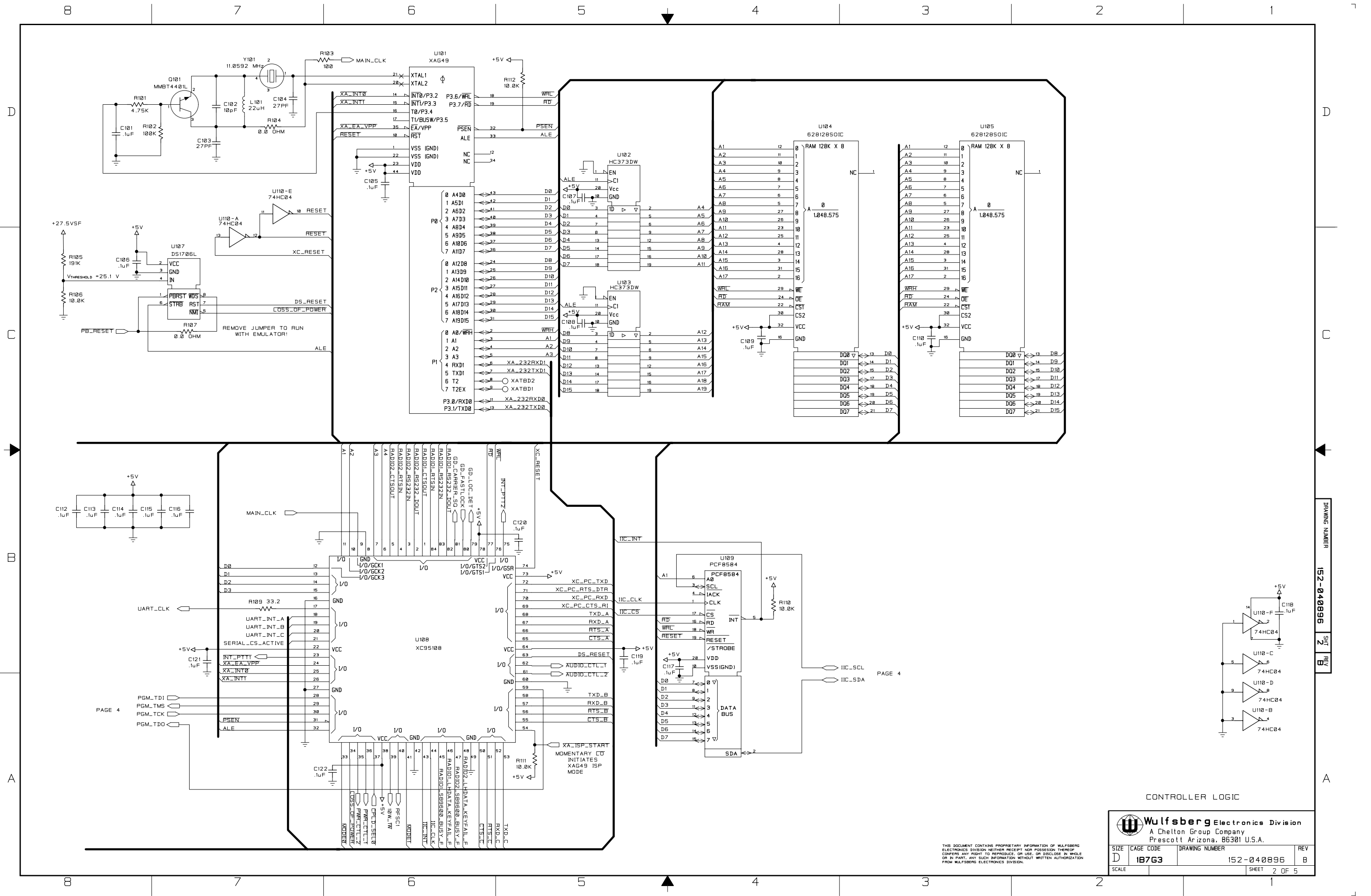
1FFFh - 1080h External SRAM Indirect
107Fh - 1060h External SRAM Indirect
Off-Chip Special Function Registers Direct
Replication of 007Fh - 0060h
105Fh - 1044h External SRAM Indirect
Special Function Registers (SFR) Direct
Replication of 005Fh - 0044h
1043Fh - 1040h External SRAM Indirect
Special Function Registers (SFR) Bit, Direct
Replication of 0043Fh - 0040h
103Fh - 1084h External SRAM Direct, Indirect
103Fh - 1082h External SRAM Bit, Direct, Indirect
100Fh - 1002h External SRAM Direct, Indirect

0FFFh - 0080h External SRAM Indirect
007Fh - 0060h Internal XAG49 RAM Indirect
Off-Chip Special Function Registers Direct
NOT currently defined for XA-G49
005Fh - 0044h External SRAM Indirect
Internal XAG49 RAM Direct
Special Function Registers (SFR) MOVX
External SRAM MOVX
Internal XAG49 RAM Indirect
Special Function Registers (SFR) Bit, Direct
External SRAM MOVX
Internal XAG49 RAM Direct, Indirect
003Fh - 0084h External SRAM Direct, Indirect
003Fh - 0082h External SRAM Bit, Direct, Indirect
000Fh - 0002h External SRAM MOVX
Internal XAG49 RAM Bit, Direct, Indirect
0001Fh - 0000h External SRAM Direct, Indirect
Internal XAG49 RAM MOVX

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES 1 XX 1 XXX 1		APPROVALS DATE		SCHEM, CONTROLLER BOARD, MTM, RT-5000	
MATERIAL SEE NOTES		DRAWN STAN WILD 6-27-01		SIZE D CAGE CODE 1B7G3 DRAWING NUMBER 152-040896 REV B	
FINISH		ENGINEER STAN WILD 6-27-01		SCALE 1 OF 5	
DO NOT SCALE DRAWING		ISSUED VERN WALLACE 6-27-01		SHEET 1 OF 5	
APPLICATION		300-040896 400-015525		NEXT ASSEMBLY FINAL ASSEMBLY	

Wulfsberg Electronics Division
A Chelton Group Company
Prescott Arizona, 86301 U.S.A.



CONTROLLER LOGIC

 Wulfsberg Electronics Division A Chelton Group Company Prescott, Arizona, 86301 U.S.A.			
SIZE D	CAGE CODE 1B7G63	DRAWING NUMBER 152-040896	REV B
SCALE		SHEET 2 OF 5	

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D

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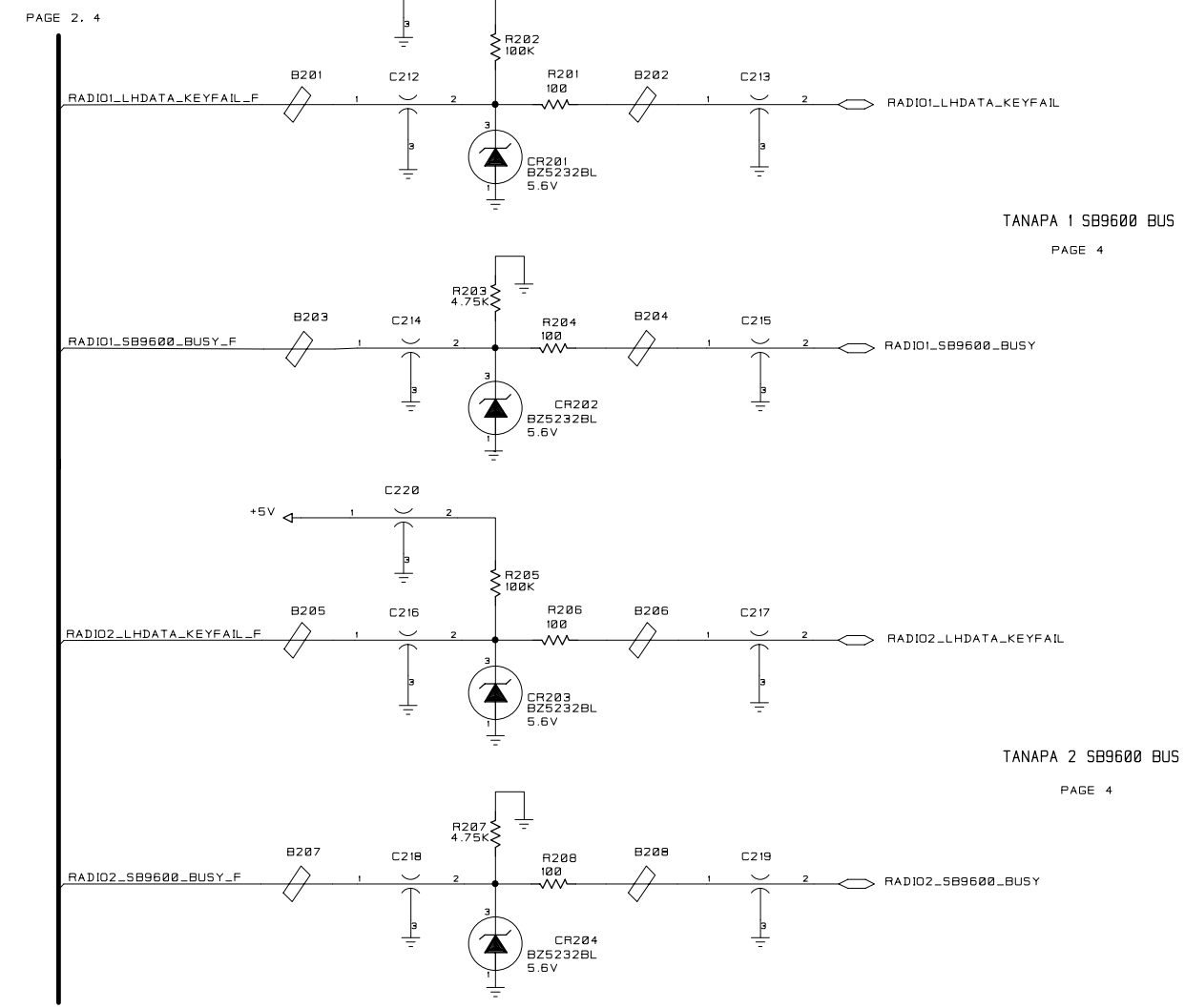
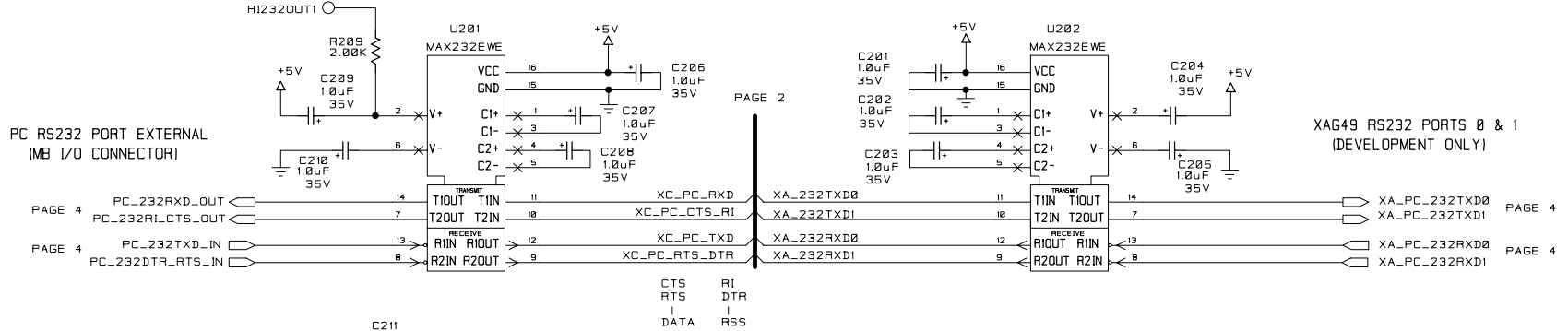
C

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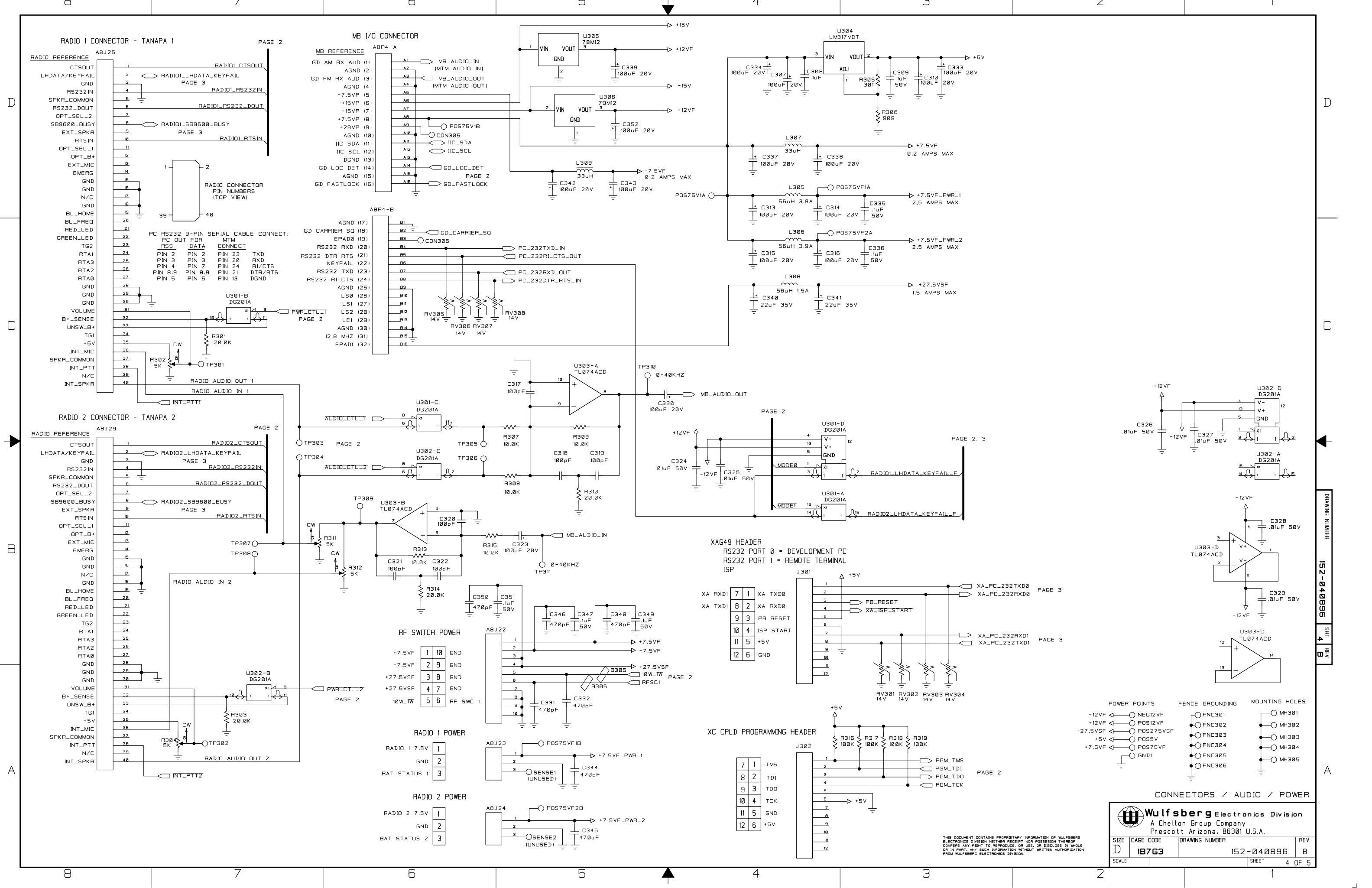
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INTERFACE LOGIC

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SIZE	CAGE CODE	DRAWING NUMBER	REV
D	1B7G3	152-040896	B
SCALE	SHEET		3 OF 5



RADIO 1 CONNECTOR - TANAPA 1

MB I/O CONNECTOR

RADIO 2 CONNECTOR - TANAPA 2

XAG49 HEADER
RS232 PORT 0 = DEVELOPMENT PC
RS232 PORT 1 = REMOTE TERMINAL
ISP

XC CPLD PROGRAMMING HEADER

RF SWITCH POWER

RADIO 1 POWER

RADIO 2 POWER

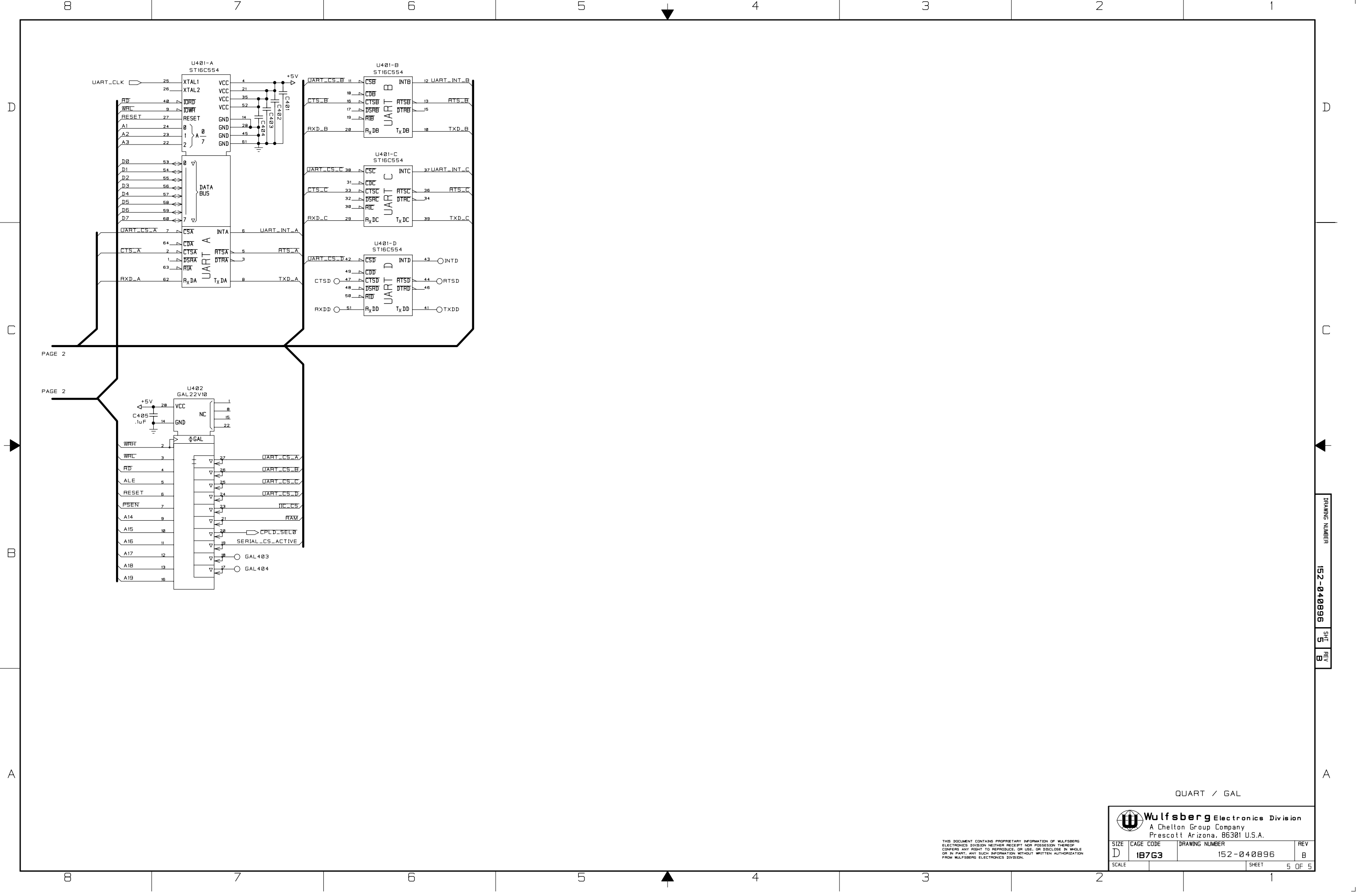
POWER POINTS		FENCE GROUNDING	MOUNTING HOLES
-12VF	NEG12VF	FNC301	MH301
+12VF	POS12VF	FNC302	MH302
+27.5VSF	POS27VSF	FNC303	MH303
+5V	POS5V	FNC304	MH304
+7.5VF	POS7.5VF	FNC305	MH305
	GND1	FNC306	

CONNECTORS / AUDIO / POWER

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SIZE	CAGE CODE	DRAWING NUMBER	REV
D	1B7G3	152-040896	B
SCALE		SHEET	4 OF 5

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PAGE 2

PAGE 2

QUART / GAL

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SIZE	CAGE CODE	DRAWING NUMBER	REV
D	1B7G3	152-040896	B
SCALE	SHEET		5 OF 5

DRAWING NUMBER 152-040896
SHEET 5
REV B

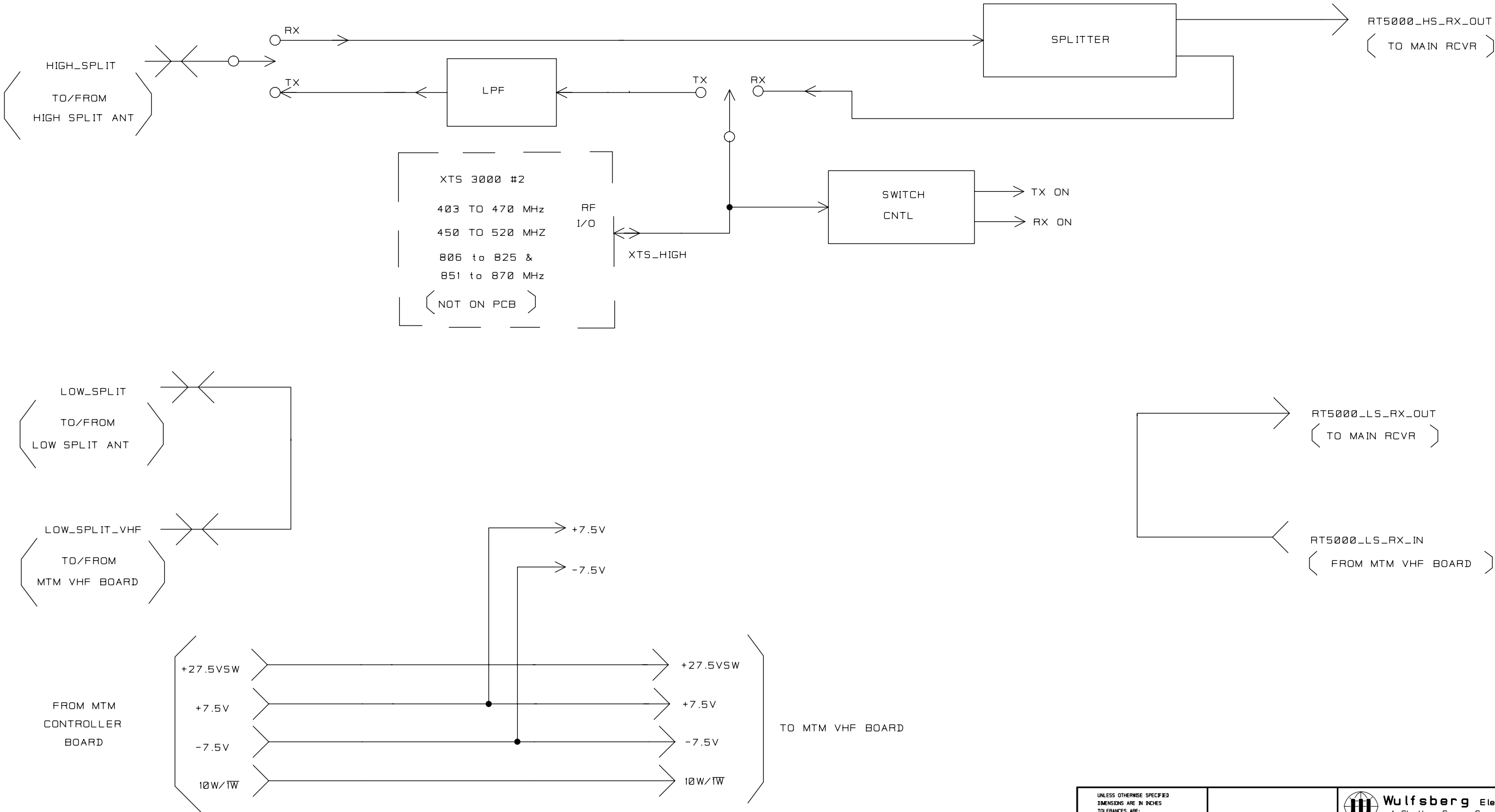
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BLOCK DIAGRAM



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REVISIONS					
ZONE	REV	DESCRIPTION			DATE
	A	INITIAL RELEASE PER DCN W1418			

DRAWING NUMBER 152-040957 SHT 1 REV A

		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± xx ± ± xxx ±				 Wulfsberg Electronics Division A Chelton Group Company Prescott Arizona, 86301 U.S.A.			
		MATERIAL		APPROVALS		DATE			
		SEE NOTES		DRAWN M. BEAUMONT					
		FINISH		ENGINEER M. BEAUMONT		SCHEMATIC, UHF BOARD, MTM. RT-5000			
300-040957	400-015525			ISSUED		SIZE D	CAGE CODE 1B7G3	DRAWING NUMBER 152-040957	REV A
NEXT ASSEMBLY		FINAL ASSEMBLY				SCALE		SHEET 1 OF 2	
APPLICATION		DO NOT SCALE DRAWING							

D

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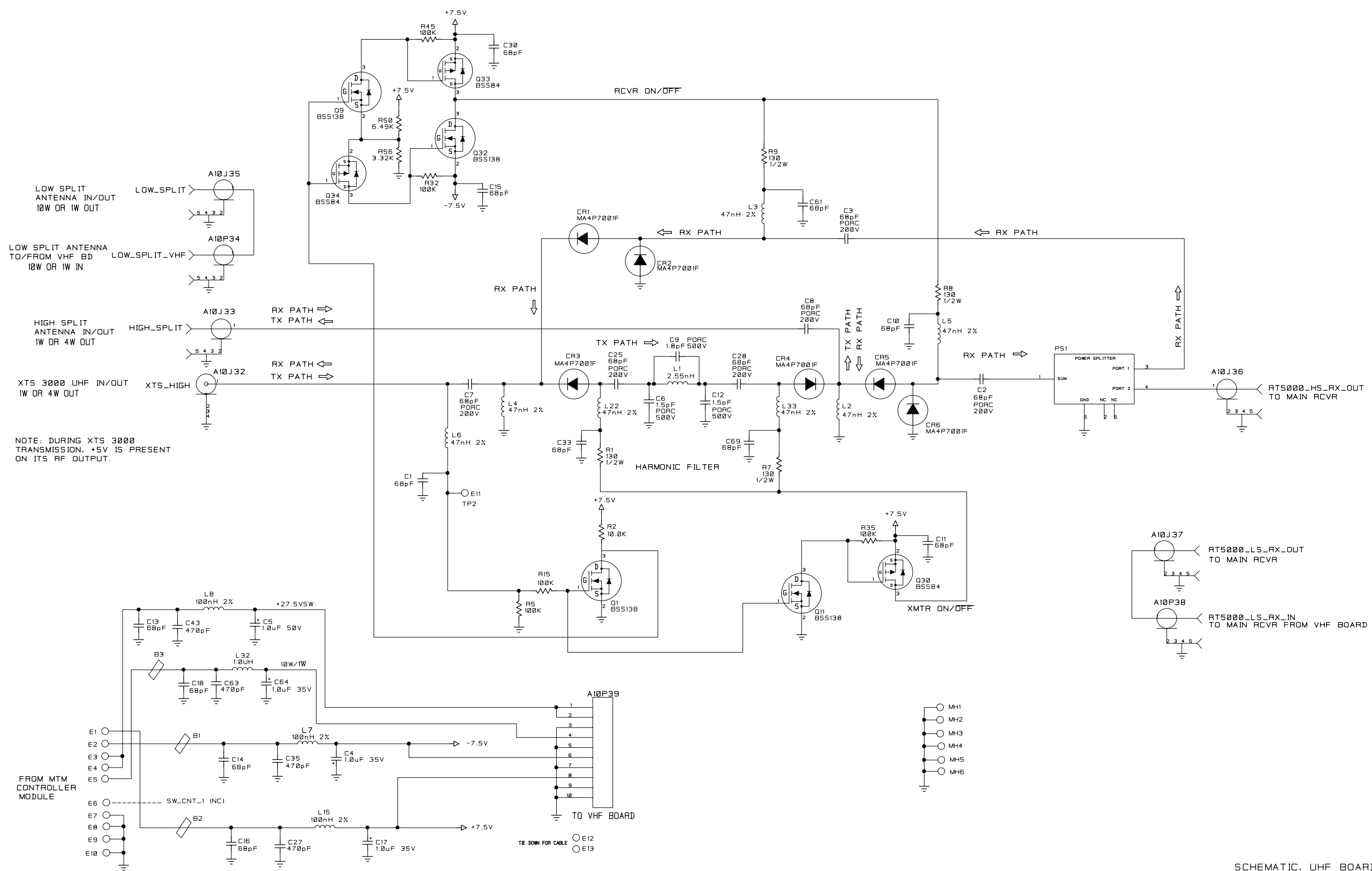
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1. ALL RESISTORS ARE 1/16W UNLESS OTHERWISE MARKED
2. ALL CERAMIC CHIP CAPS ARE 50V

SCHEMATIC, UHF BOARD, MTM, RT-5000

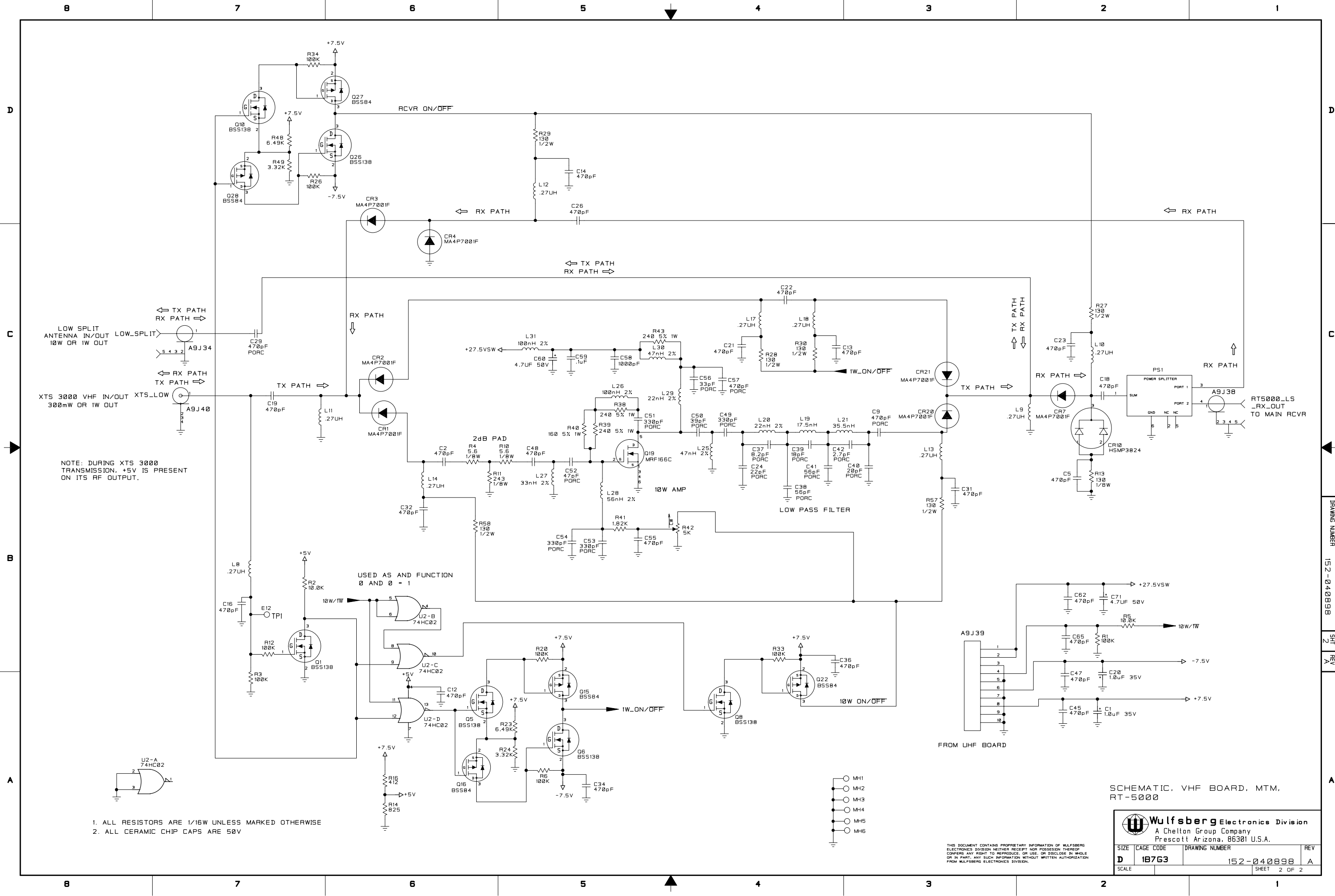
 Wulfsberg Electronics Division A Chelton Group Company Prescott Arizona, 86301 U.S.A.			
SIZE D	CAGE CODE 1B7G3	DRAWING NUMBER 152-40957	REV A
SCALE	SHEET 2 OF 2		

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DRAWING NUMBER 152-040957

SHT 2

REV A



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1. ALL RESISTORS ARE 1/16W UNLESS MARKED OTHERWISE
2. ALL CERAMIC CHIP CAPS ARE 50V

SCHEMATIC, VHF BOARD, MTM, RT-5000

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Prescott Arizona, 86301 U.S.A.			
SIZE	CAGE CODE	DRAWING NUMBER	REV
D	1B7G3	152-040898	A
SCALE	SHEET 2 OF 2		

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DRAWING NUMBER 152-040898
SHEET 2 OF 2