Version A - 06/19

Service Manual

PRX818XLF

18” Self-Powered Extended Low Frequency Subwoofer System with Wi-Fi

Table of Contents

Datasheets and Specifications

Exploded View Diagrams

Board Layouts

Schematics

Bill of Materials

PRX818XLF

18” Self-Powered Extended Low Frequency Subwoofer System

Features:

- Maximum SPL Output 134 dB Peak
- 18” Differential Drive® low-frequency driver for low-distortion and higher SPL
- 1500W highly efficient Class-D amplifier
- Wireless remote control of its onboard DSP EQ parameters via Wi-Fi. Control and configure your show from anywhere.
- DSP input limiter circuit, crossover, dynamic limiting, and component optimization
- Professional XLR-1/4” combination inputs and XLR loop-through
- Top panel M20 pole mount socket for sub/ satellite configuration
- Injection molded handles with comfort rubber grips for easy transport
- Lightweight poplar plywood cabinets made structurally sound with tongue and groove joints and protected by JBL’s tour proven DuraFlex™ finish

Application:

- The PRX815XLF extended low frequency subwoofer was designed and engineered to provide sub bass frequencies with accuracy and power. Used as a single sub in a sub/ sat system or in multiples as part of a scalable, large format sound reinforcement system, the PRX815XLF performs with exceptional efficiency and control. The subs are stackable and light-weight, ensuring quick set-ups and tear-downs. Due to their rugged construction, they are perfect for AV rental inventories. With the integrated stereo pass-thru this is the most powerful low-frequency complement to the PRX full-range systems. The addition of a polarity reverse option further enables system optimization. PRX800 subwoofers feature a standard M20 threaded pole cup that can accept most modern subwoofer-mounted speaker poles.
- The PRX818XLF is a high performance self-powered subwoofer system with remote Wi-Fi control of onboard DSP EQ parameters. The PRX818XLF is comprised of a powerful 2278G Differential Drive® dual voice-coil and magnetic gap, woofer driven by a 1500 Watt Class-D power amplifier. Sophisticated DSP is at the core of a fully featured input section, providing user selectable cross-over functionality, polarity optimization, protection, dynamic limiting and discrete component optimization.
- All PRX800 cabinets are built from 18 mm, strong, light-weight poplar plywood made structurally sound with tongue and groove joints. All PRX800 Series cabinets are protected by JBL’s tour proven DuraFlex™ finish. Grilles are made from dent-resistant 16 gauge steel and handles are made from light-weight glass-filled nylon for added strength and durability. All M10 suspension points are constructed from 14 gauge steel and have been tested with a yield-strength of 1000 lbs. Each
- The amplifier input panel offers stereo inputs with XLR or ¼ inch jack compatibility. A user selectable crossover ensures a smooth transition to full-range system connected to the stereo outputs. Signal present and limiter lights indicate the system status and assist in setting the optimum level via the level control knob.

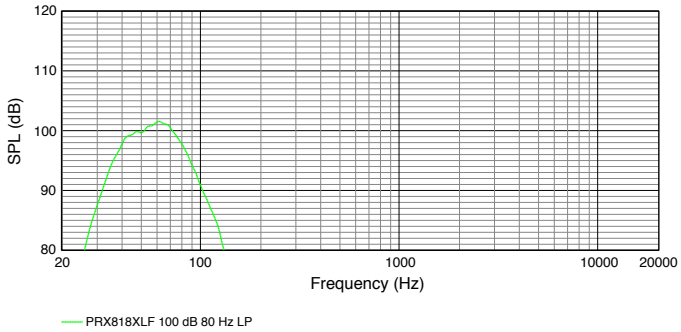
Specifications:

System:	
System Type:	Self Powered 18”, subwoofer
Maximum SPL Output:	134 dB peak
Frequency Range (-10 dB):	30 Hz - 103 kHz
Frequency Response (±3 dB):	35 Hz - 87 kHz
Input Connectors:	2 x Balanced femaleXLR / 1/4 combo connec
Input Impedance:	20K Ohms (balanced)
Signal Indicators:	Limit: Yellow LED indicates peak output has been reached and DSP limiter is acting Signal: Green LED indicates signal present Power: Blue indicates system has power and ready to pass audio Power Save: Red indicates system has power but is in a power-saving mode and will not pass audio
Dynamic Control (Input):	dbx Type IV™ limiter circuit
System Low Pass::	80 Hz DSP
Loop out Crossover Frequency:	80Hz Digital 24db/octave Linkwitz-Riley Filter
Amplifier:	
Design:	Highly efficient Class-D amplifier
Power Rating:	1500W
AC Power Input:	100V - 240V ~ 50/60 Hz
Speaker:	
LF Driver:	1 x JBL 2278G 460 mm (18 in) woofer
Enclosure:	Retangular, 18 mm, birch-poplar mix
Transport:	2 x injection molded handle with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Dimensions (H x W x D):	692 mm x 523 mm x 724 mm (27.26 in x 20.6 in x 28.5 in)
Net Weight:	36.28kg (80 lb)
Gross Weight:	45.0 kg (100.0 lb)

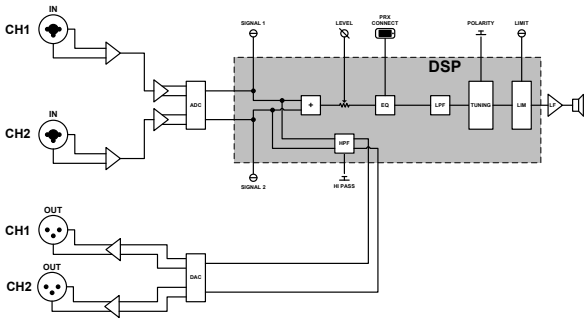
JBL continually engages in research related to product improvement. Some materials, production methods and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

PRX818XLF 18” Self-Powered Extended Low Frequency Subwoofer System

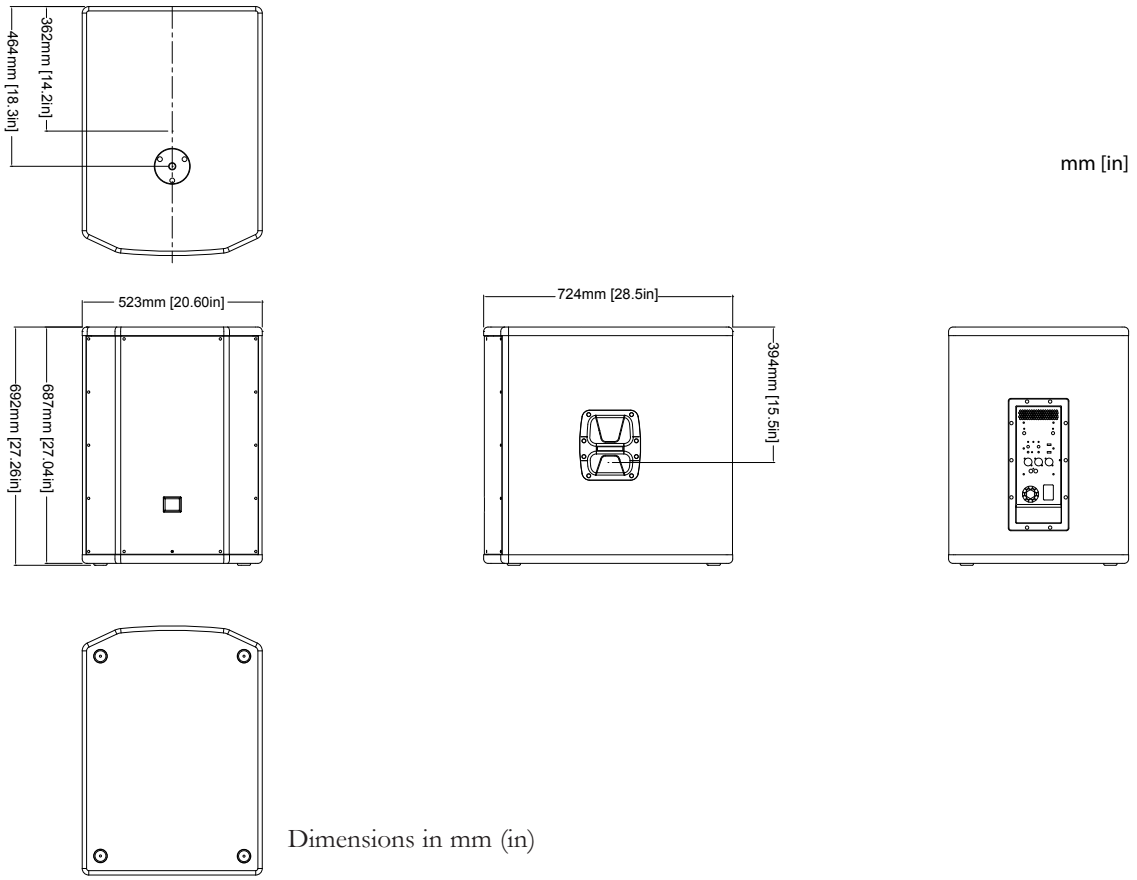
Frequency Response:



Block Diagram:



Dimensions:



Dimensions in mm (in)

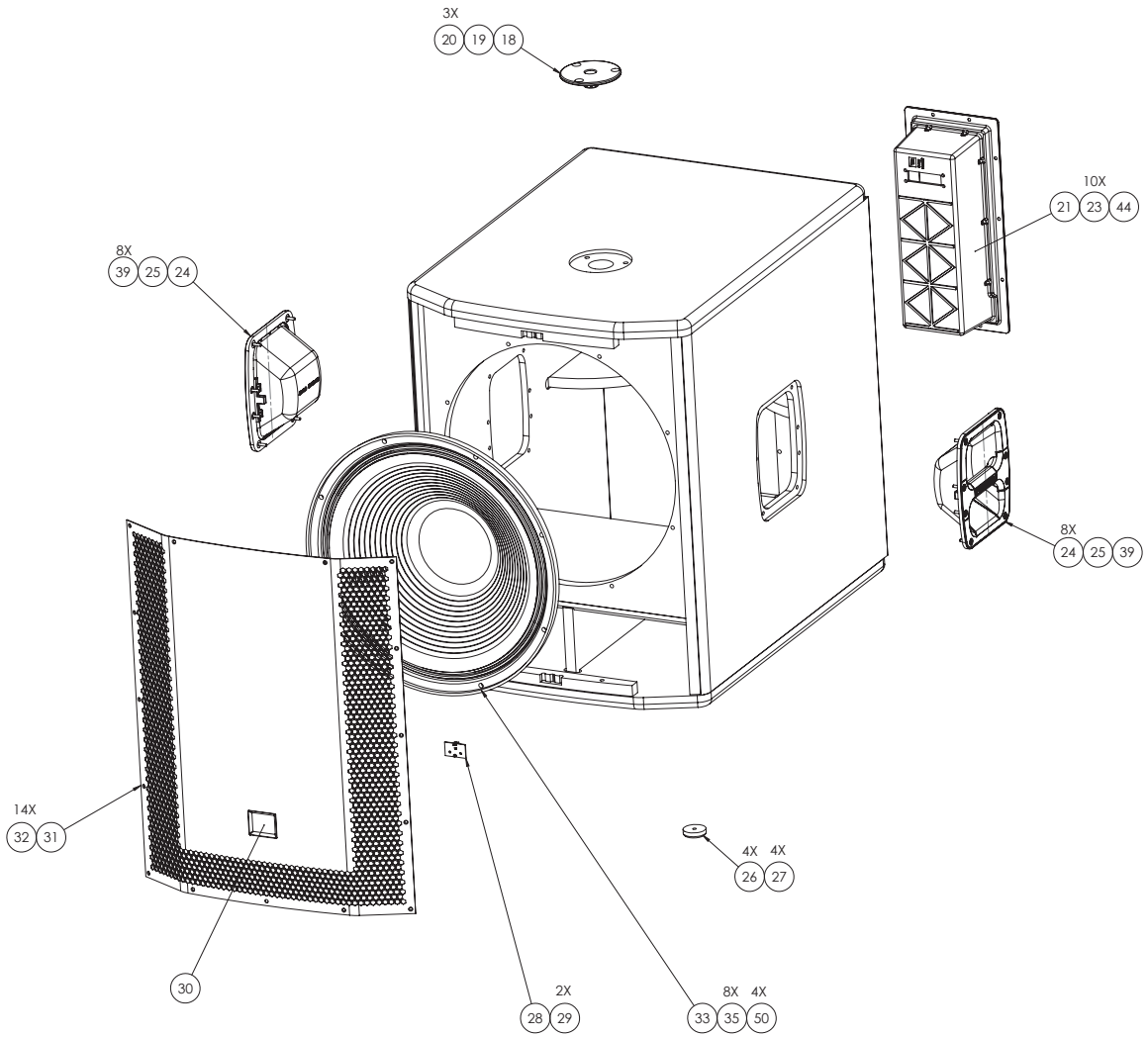
JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.

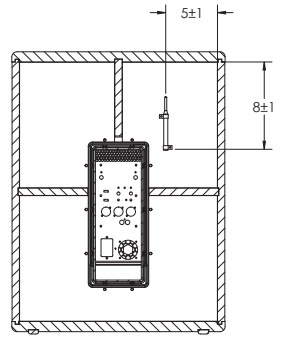
www.jblpro.com

PN: 5075807
SS PRX818XLF
CRP
06/17

Exploded View Diagram

REVISIONS						
CHG	LTR	DESCRIPTION	DRFT	CHK	DATE	APPR
		SEE SHEET 1				



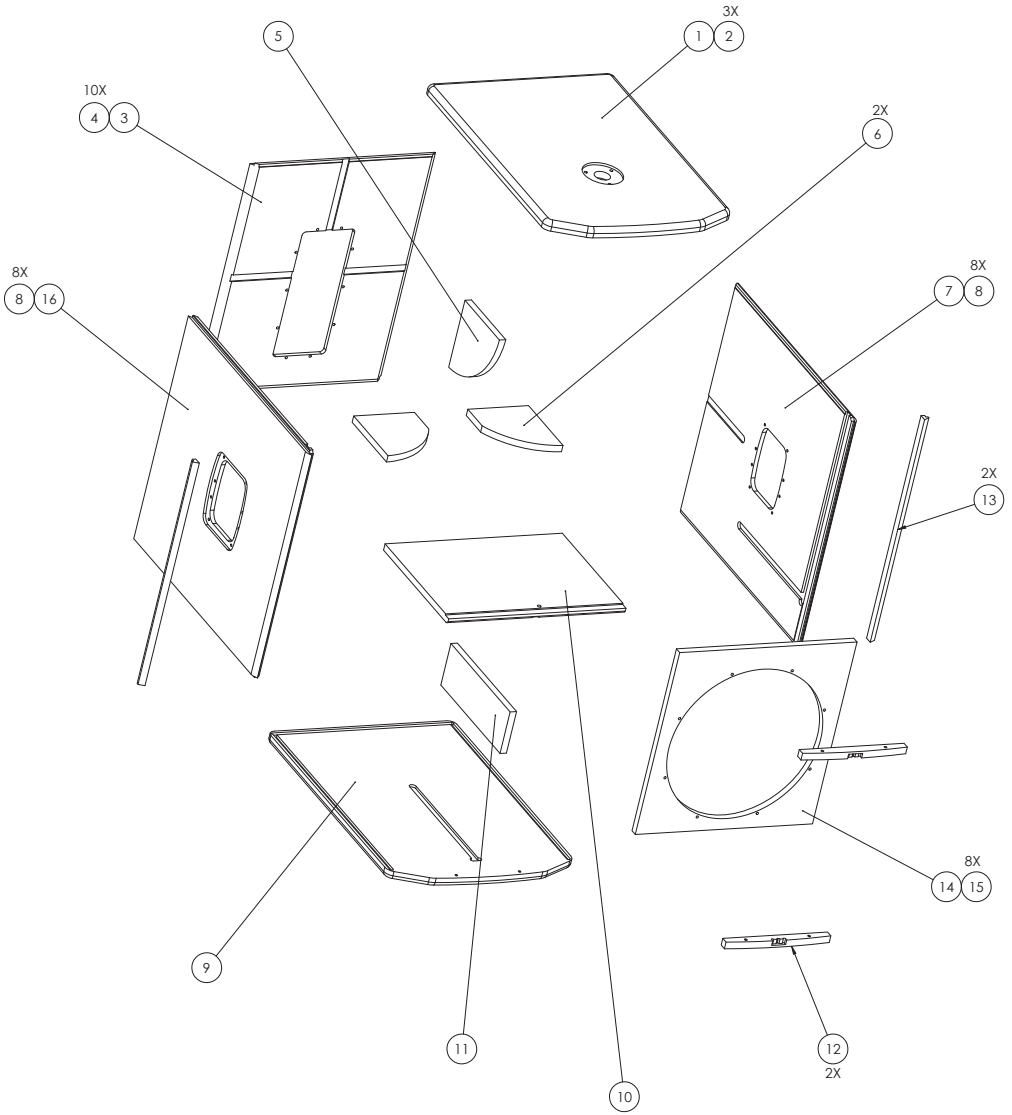


SECTION A-A

NOTES: (UNLESS OTHERWISE SPECIFIED)

HARMAN			
TITLE: S/M PRX818XLFW			
SIZE: D	DRAWING NO.: 1000223729	REV: C	
SCALE: 1:1	SHEET 2 OF 4		

REVISIONS						
CHG	LTR	DESCRIPTION	DRFT	CHK	DATE	APPR
		SEE SHEET 1				

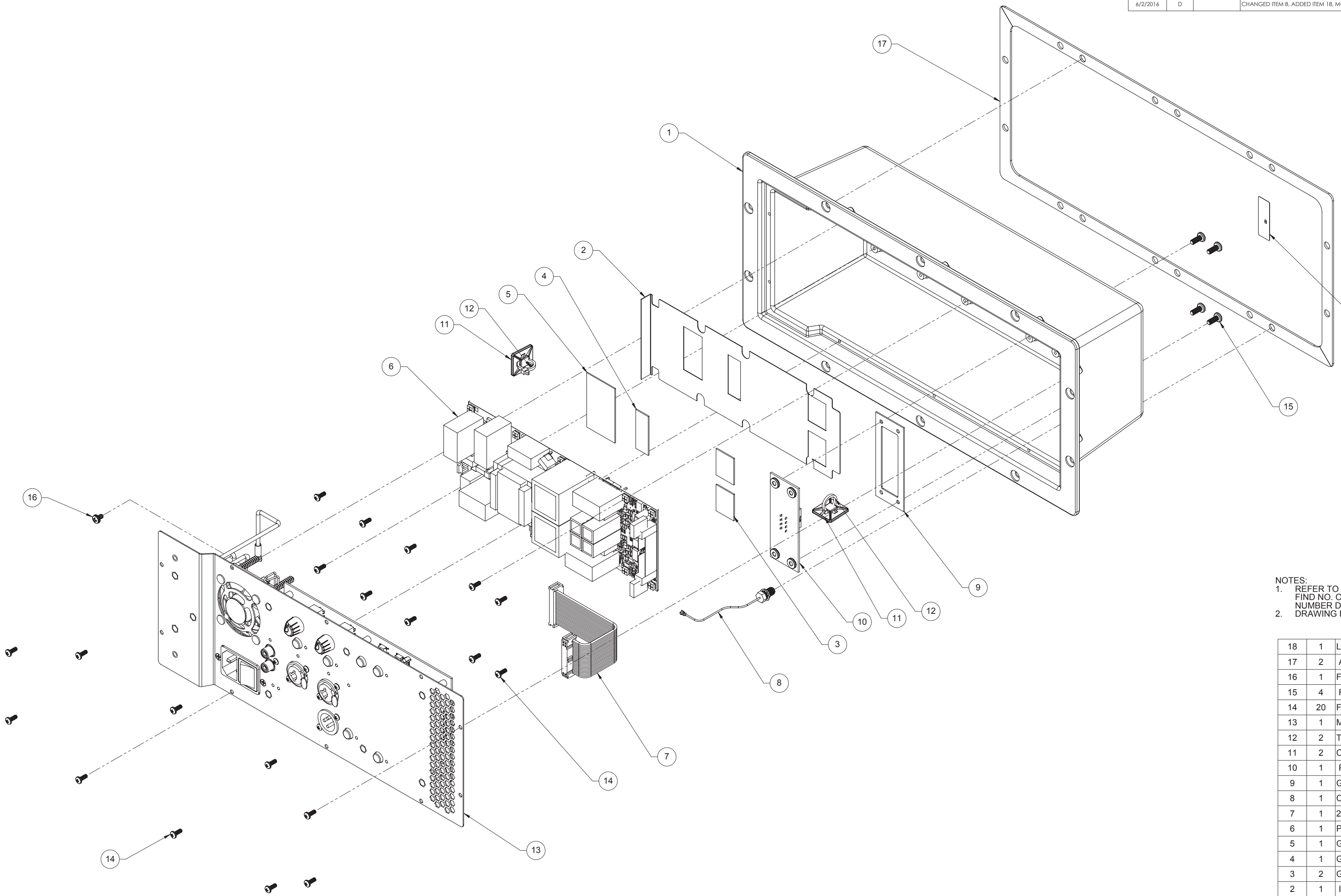


40 41 42 43 45 46 49 51 52 53

NOTES: (UNLESS OTHERWISE SPECIFIED)

HARMAN			
TITLE: S/M PRX818XLFW			
SIZE: D	DRAWING NO.: 1000223729	REV: C	
SCALE: 1:1	SHEET 3 OF 4		

REVISION HISTORY					
DATE	REV.	PREVIOUS PART NO.	DESCRIPTION	ZONE	BY
12/11/2015	A		INITIAL RELEASE		RWS
2/24/2016	B		P1 CHANGES		RWS
3/17/2016	C		ADDED 6-32 SEMS, CABLE TIE, CABLE TIE MOUNT,		RWS
6/2/2016	D		CHANGED ITEM 8, ADDED ITEM 18, MOVED LOCATION OF ITEM 11		RWS



NOTES:
1. REFER TO PROCOM FOR COMPONENT PART NUMBERS. FIND NO. ON THIS DRAWING CORRESPONDS TO THE FIND NUMBER DETAILED ON THE PROCOM BILL OF MATERIALS.
2. DRAWING IS VALID FOR 5069108, 50669109, & 5071129.

FIND NO.	QTY.	Description
18	1	LBL,PRNT,PRX800 S/N
17	2	AMP GASKET, PRX700
16	1	FSTNR,MSCR,PH-PNH,6-32x1/4,EX SEMS,Zn
15	4	FSTNR,MSCR,PH-PNH,M4,SPR,WSHR,10mm,BLUZN
14	20	FSTNR,MSCR,PH-PNH,M3,8mm,BLKZN
13	1	MECHASY,PRX800W,REAR PNL
12	2	TIE, CABLE 5.5" OR MORE 18 LB
11	2	CABLE TIE MNT W/ADHESIVE BL 0.75" SQ BIN
10	1	PASS THRU PCB ASSEMBLY- 2 WAY, PRX700
9	1	GASKET, PCB PASS THROUGH
8	1	CBL,WA,RF,PAS,200mm,50ohm,RP-SMA,MHF
7	1	26PIN RIBBON CABLE, PRX700
6	1	PSU / AMPLIFIER BOARD ASSEMBLY, PRX700
5	1	GAP PAD 3, PRX700
4	1	GAP PAD 2, PRX700
3	2	GAP PAD 1, PRX700
2	1	ISOLATING SHEET, PRX700
1	1	ENCL,CHAS,PRX800W EM

ROHS
RESTRICTION OF HAZARDOUS SUBSTANCES
ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT.
SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.

TOLERANCES UNLESS OTHERWISE SPECIFIED:
All Dimensions: ±.020
Angular: ±1.0°
ALL DIMENSIONS ARE IN INCHES
ALL DIMENSIONS APPLY AFTER FINISH.
DIMENSIONS SHOWN ARE FOR REFERENCE AND INSPECTION ONLY. REFER TO CAD MODEL PROVIDED WITH THIS DRAWING FOR OVERALL DEFINITION OF PART GEOMETRY.

THIRD ANGLE PROJECTION

HARMAN

TITLE	MECHASY,PRX800W,AMP
DRAWN BY	RWS
DATE	12/11/2015
DESIGNED BY	RWS
DATE	8/21/2015
ENGINEER	RWS
NO.	1000235451
REV	D
SIZE	D
SCALE	5:8
	DO NOT SCALE DRAWING
SHEET	1 OF 2

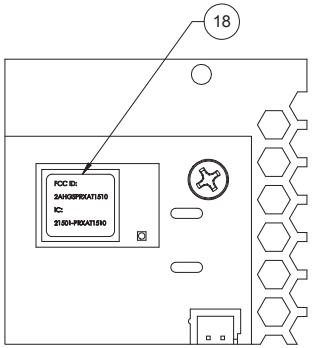
FIND NO.	Description
19	HDW,INSUL,TAPE,PRX800 LTPP
18	LBL,PRNT,FCC ID,PRX800 WIFI
17	CBL,WA,16AWG,1.5",BRN
16	CBL,WA,16AWG,1.5",BLUE
15	RVT, .315X4.7X.09 SILRUB FAN
14	NUT HEX 6-32 KEPS ZINC
13	FSTNR,KNUT,EXTW,M3,2.4mm,BLUZN
12	FSTNR,MSCR,FLH,PH,M3,12mm,STL,BLKZN
11	BLACK SELF TAPPING PLASTITE SCREW 2.9 X 8MM
10	FSTNR,MSCR,PH-PNH,6-32X.375,SEMS
9	KNOB, MIXER EON206P
8	HDW,LTPP,SINGLE SMT LED,DOME,26MM HT
7	HDW,SWCAP,VERT,RND,BLACK,20MM HT,2.4MM SQ MT
6	PCB,ASY,PRX800W,INPUT
5	PCB,ASY,PRX800,LINE FILTER
4	GROUND WIRE, PRX700
3	THRMMGT,FAN,50X50X15,24V,11.6 CFM
2	AC INLET SOCKET,PRX700
1	ENCL,PNL,BACK,PRX800W

INSTALL LATCH AFTER NEUTRIK CONNECTOR IS SCREWED TO REAR PANEL (2X)

WRAP TAPE AROUND LIGHT PIPE

LABEL

ROUTE WIRES AS SHOWN & SOLDER TO IEC TABS (4X)



NO.	REV
1000234154	H

SIZE	SCALE		SHEET	OF
C	5:8	DO NOT SCALE DRAWING	2	8

Table of Contents

COMPONENT MAP

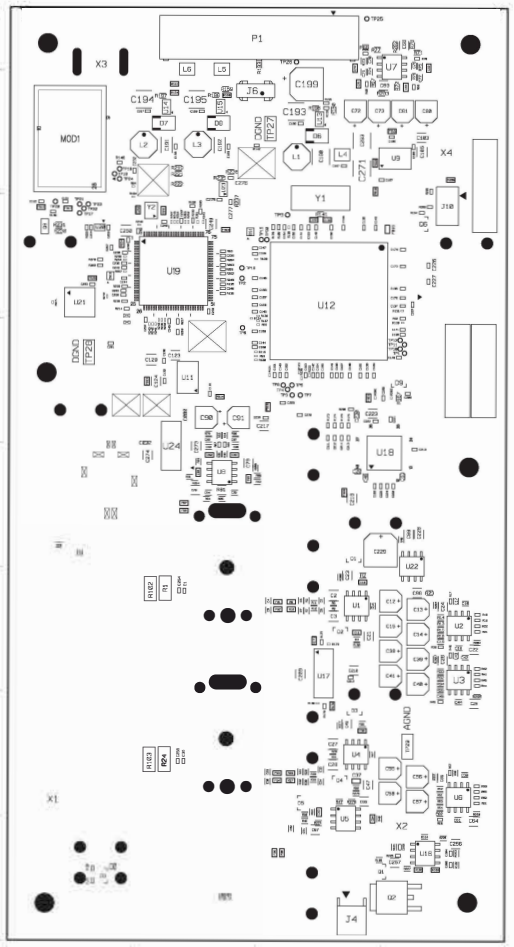
TOPSIDE

SCALE: 2:1

REVISION HISTORY			
DATE	REV.	DESCRIPTION	BY
03-29-16	A	SEE 5065760-03_A.XLS FOR COMPONENT DATA AND REVISION HISTORY.	TLM
05-31-16	B	SEE 5065760-03_B.XLS FOR COMPONENT DATA AND REVISION HISTORY.	TLM
06-10-16	C	SEE 5065760-03_C.XLS FOR COMPONENT DATA AND REVISION HISTORY.	TLM

CN51678

CN52109

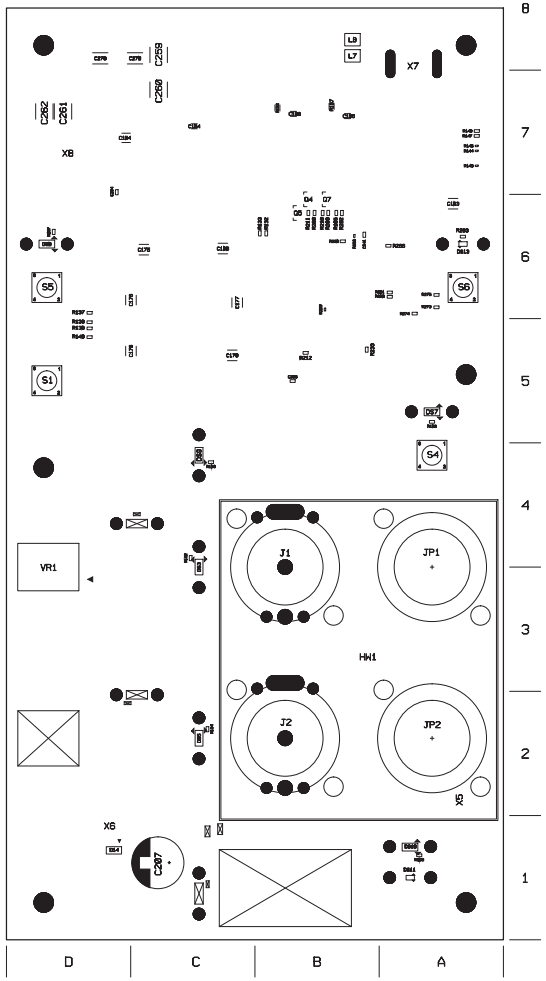


ROHS	TOLERANCES UNLESS OTHERWISE SPECIFIED	HARMAN	
	ALL DIMENSIONS ARE IN INCHES (MM)	TITLE	PCB,ASY,PRX800W_INPUT_FULL,AV1
	DRAWN BY: MICINSKI, TIM — DATE: 03-29-16	ASY NO.	5065760-03
	DESIGNED BY: MICINSKI, TIM — DATE: 03-29-16	REV	C
	APPROVED BY: MONROE,TOM	SIZE: D	ASY DWG NO. / REV
		SCALE: 1:1	DO NOT SCALE DRAWING — SHEET 1 OF 9

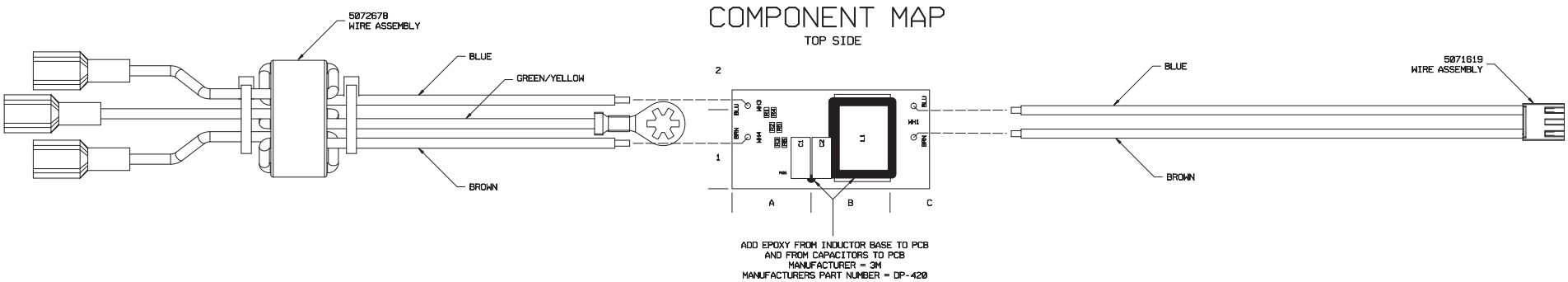
COMPONENT MAP

BOTTOMSIDE

SCALE: 2:1



ASSY NO.	5065768-03	REV C
SIZE D	ASY DWG NO. / REV	
SCALE 1:1	DO NOT SCALE DRAWING	SHEET 2 OF 9



TOLERANCES UNLESS OTHERWISE SPECIFIED
FINISHED DRILL: +/-0.003 (0.0762)
REGISTRATION: +/-0.003 (0.0762)
MINIMUM ANNULAR RING: +/-0.002 (0.0508)
.XX = +/-0.01 (0.254)
.XXX = +/-0.005 (0.127)
ALL DIMENSIONS ARE IN INCHES (MM)
ALL DIMENSIONS APPLY AFTER FINISH

ROHS
RESTRICTION OF HAZARDOUS SUBSTANCES
ALL MATERIALS USED IN THIS PART MUST BE ROHS COMPLIANT.
SUPPLIER SHALL PROVIDE A CERTIFICATE OF ROHS COMPLIANCE WITH THE FIRST ARTICLE.

HARMAN

DRAWN BY	WALTER, KEN	DATE	03-11-16
DESIGNED BY		DATE	
ENGINEER	BIRD, ERNIE		03-11-16

TITLE: PCB,ASY, PRX_8xx_LINE_FILTER,AV1
ASY NO.: 5071362-02
REV: B
SIZE: C
ASY DWG NO. / REV
SCALE: 1:1
DO NOT SCALE DRAWING
SHEET: 1 OF 1

1	Component Map - Top Side
2	Component Map - Bottom Side
3	Title Page
4	INPUT
5	OUTPUT
6	SHARC
7	LED/SWITCHES
8	MICRO/WIFI
9	PWR SUPPLY/CONNECTORS/FAN

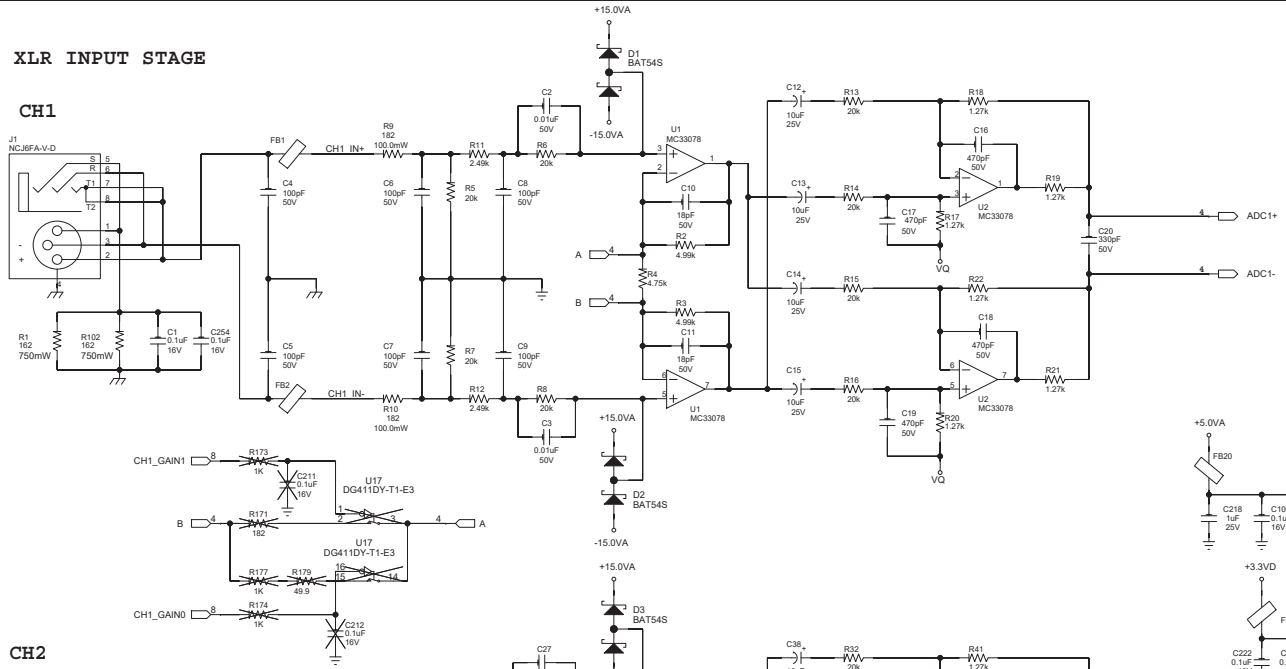
NOTE:
UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS ARE IN OHMS, 1% AND 0.063W
2. ALL CAPACITORS ARE IN MICROFARADS

TITLE PAGE

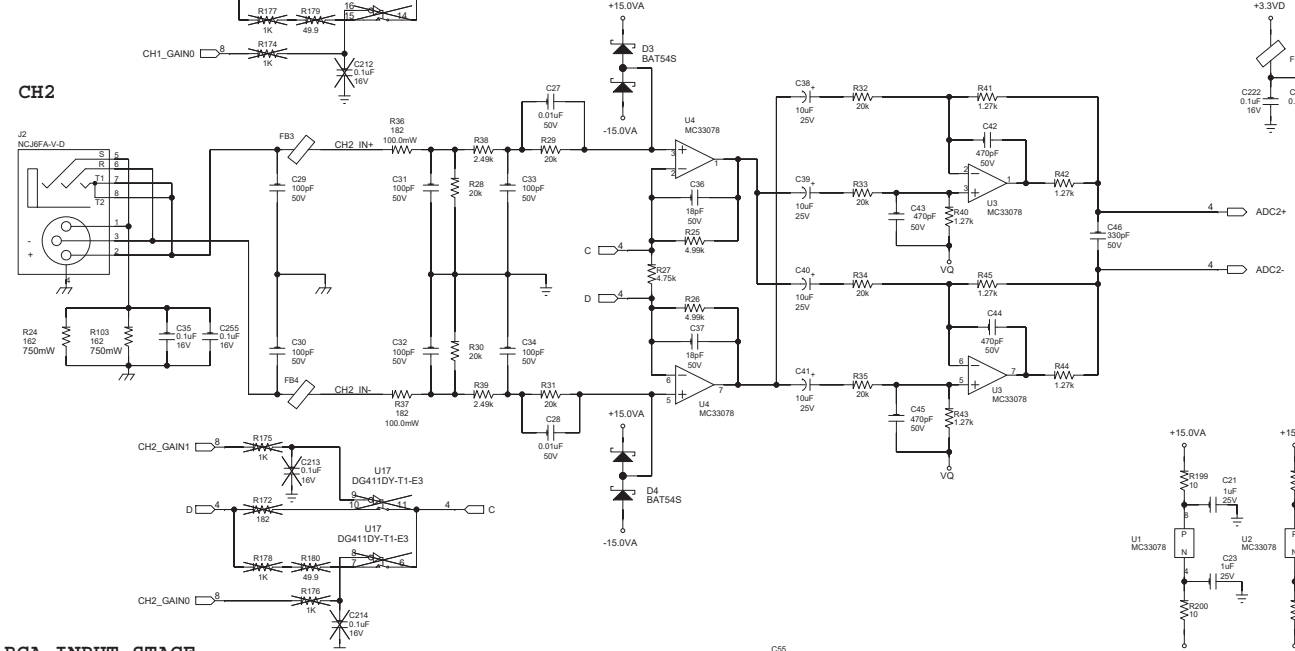
SHEET NAME		REVISE STAMP	30/03/2016:14:52
SIZE C	SCH PART NO. 5065768-03		REV C
SCALE NONE	ART PART NO. 5065768-03	PCB PART NO. 5065759-02	SHEET 3 of 9

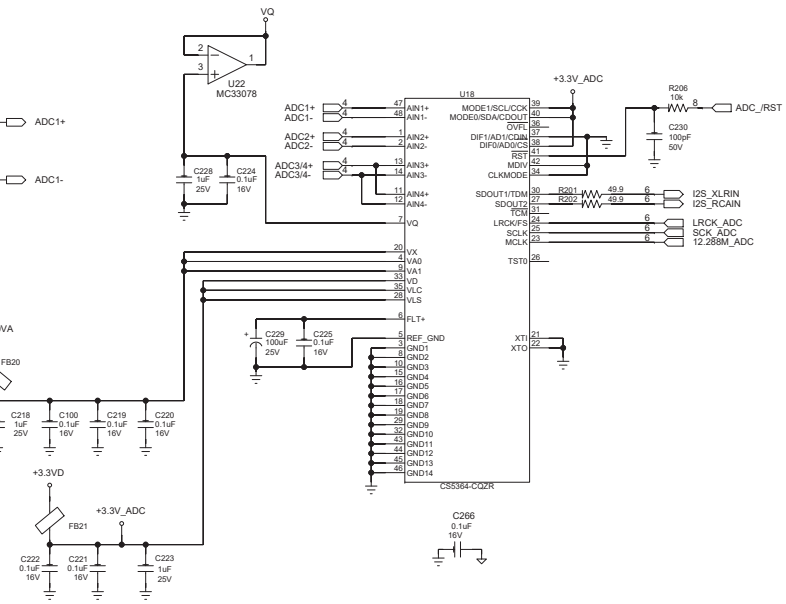
XLR INPUT STAGE

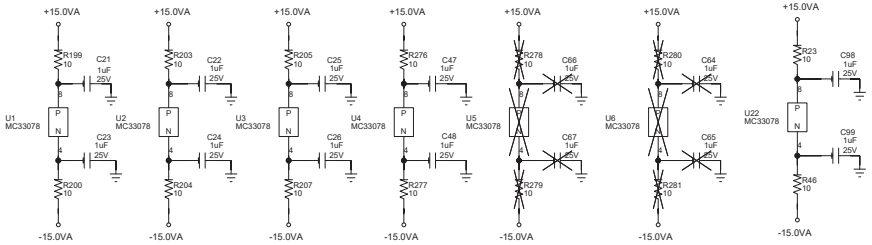
CH1



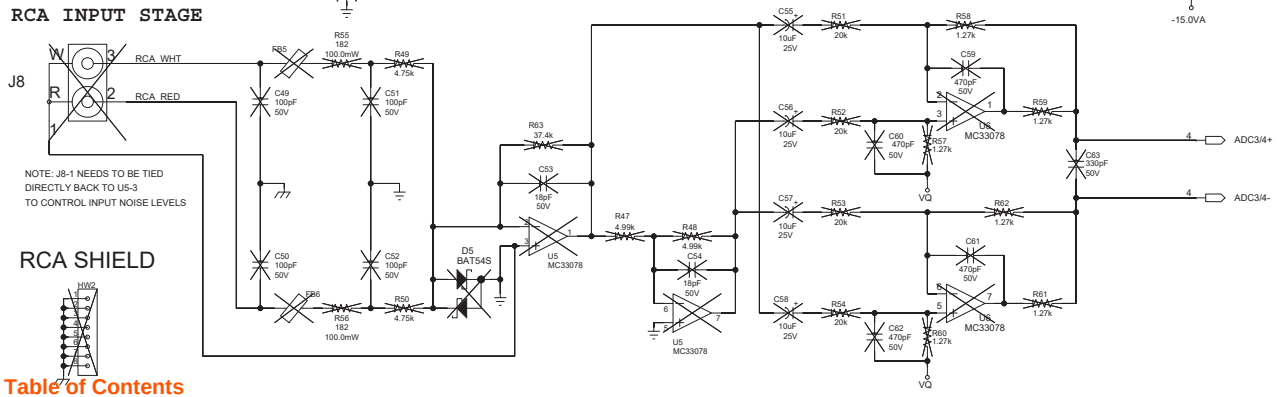
CH2

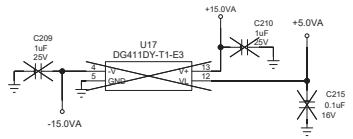






RCA INPUT STAGE





INPUT

SHEET NAME: Input		REVISE STAMP: 09/06/2016:15:22	
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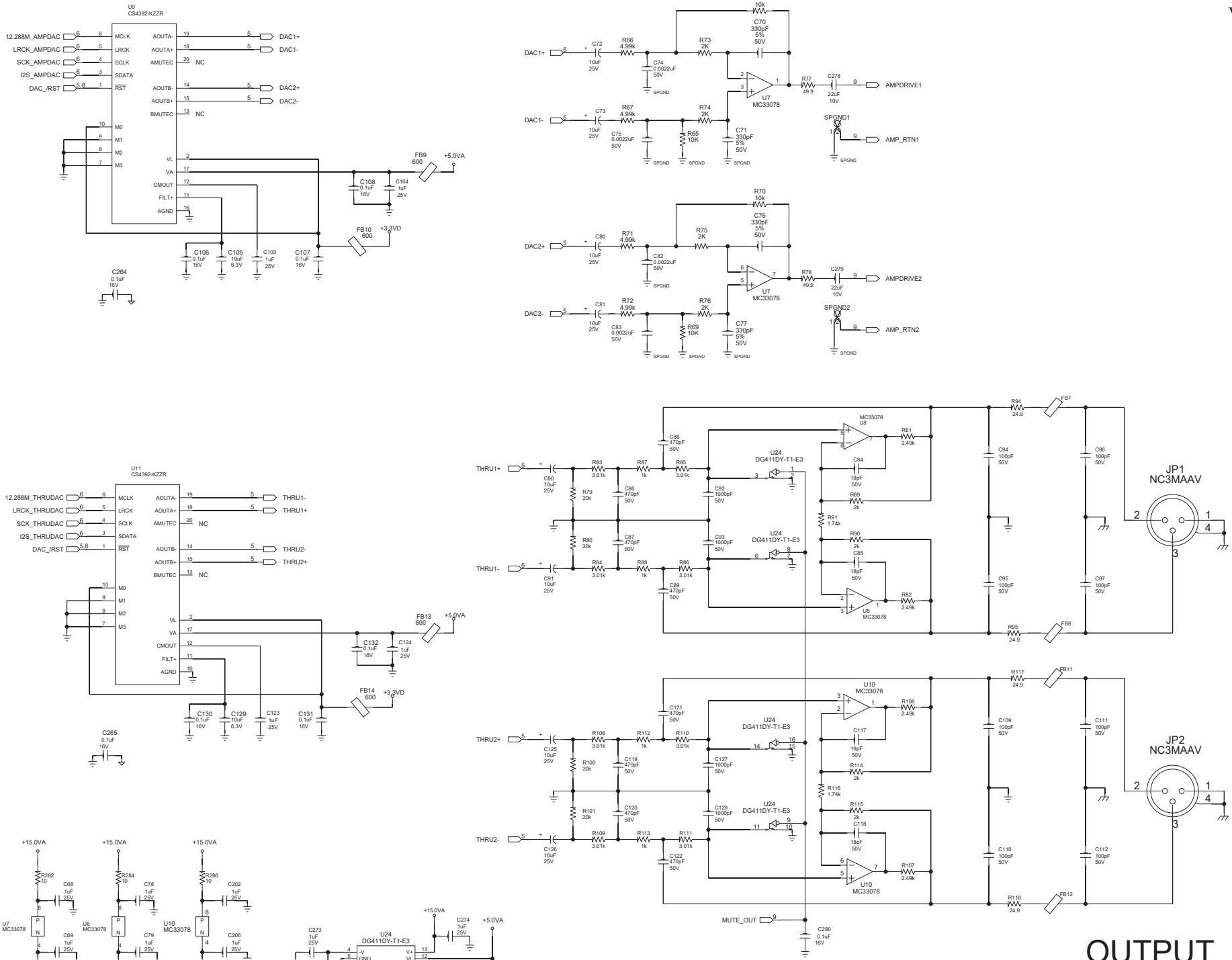
SCALE: NONE	ATT PART NO.: 5065768-03	PCB PART NO.: 5065759-02	SHEET: 4 of 9

XLR OUTPUT STAGE



OUTPUT

Table of Contents

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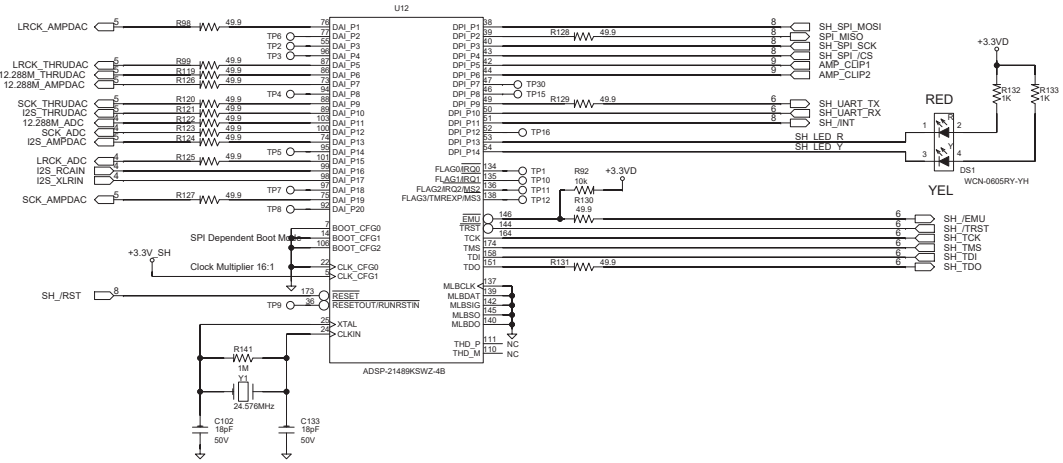
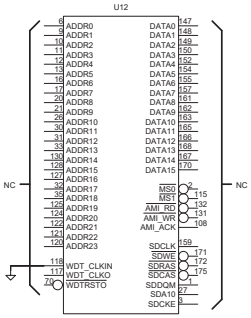
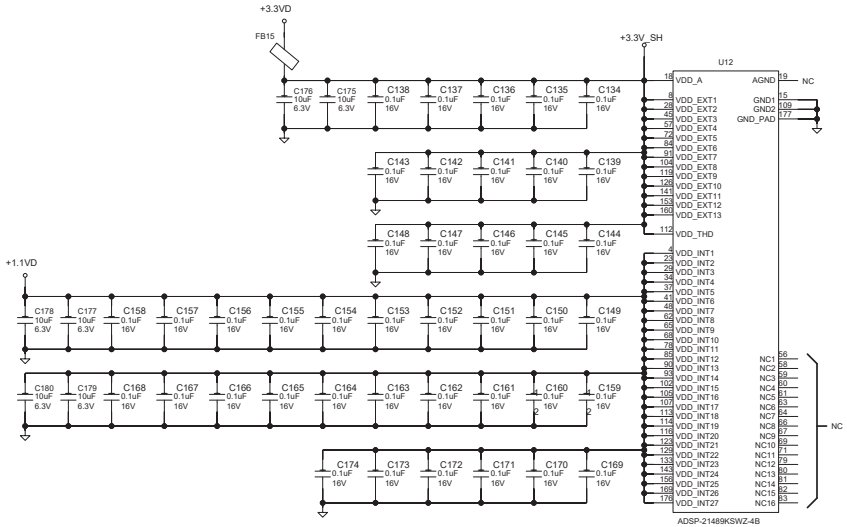
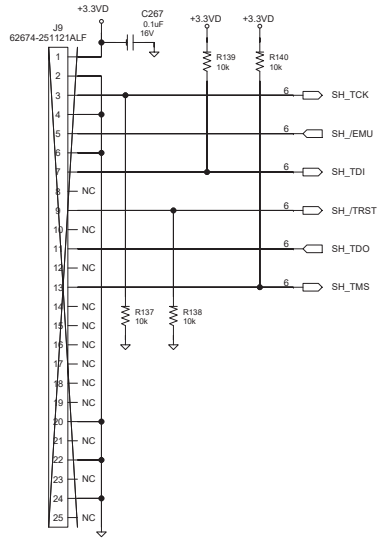
SCALE NONE	ART PART NO. 5065768-03	PCB PART NO. 5065759-02	SHEET 5 of 9 14



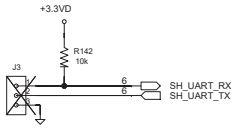




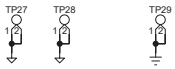
SHARC JTAG DEBUG



SHARC DEBUG HEADER



DGND AGND



SHARC

SHEET NAME		REVISE STAMP	09/06/2016:15:24
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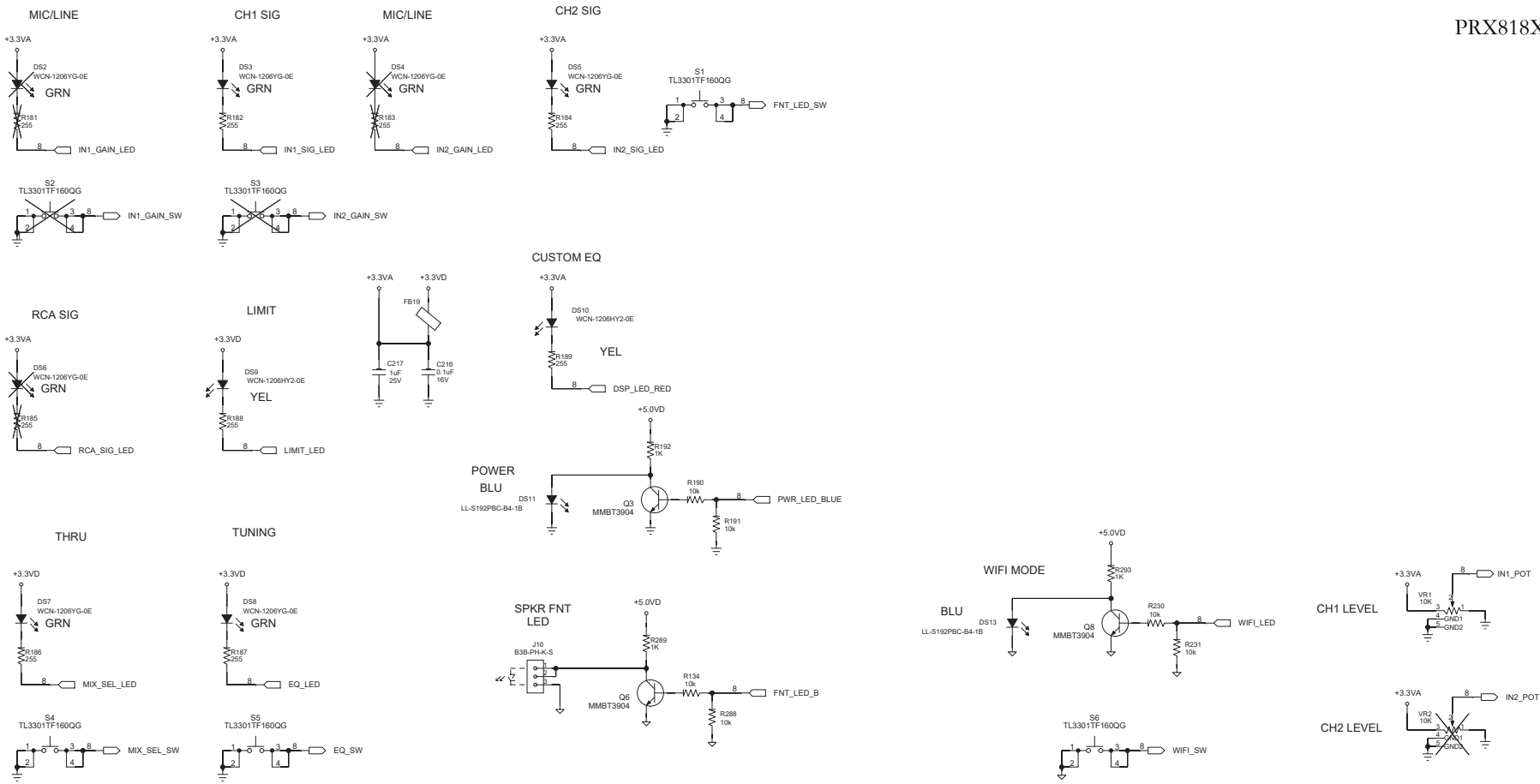
SCALE NONE	ART PART NO. 5065768-03	PCB PART NO. 5065759-02	SHEET 6 of 9



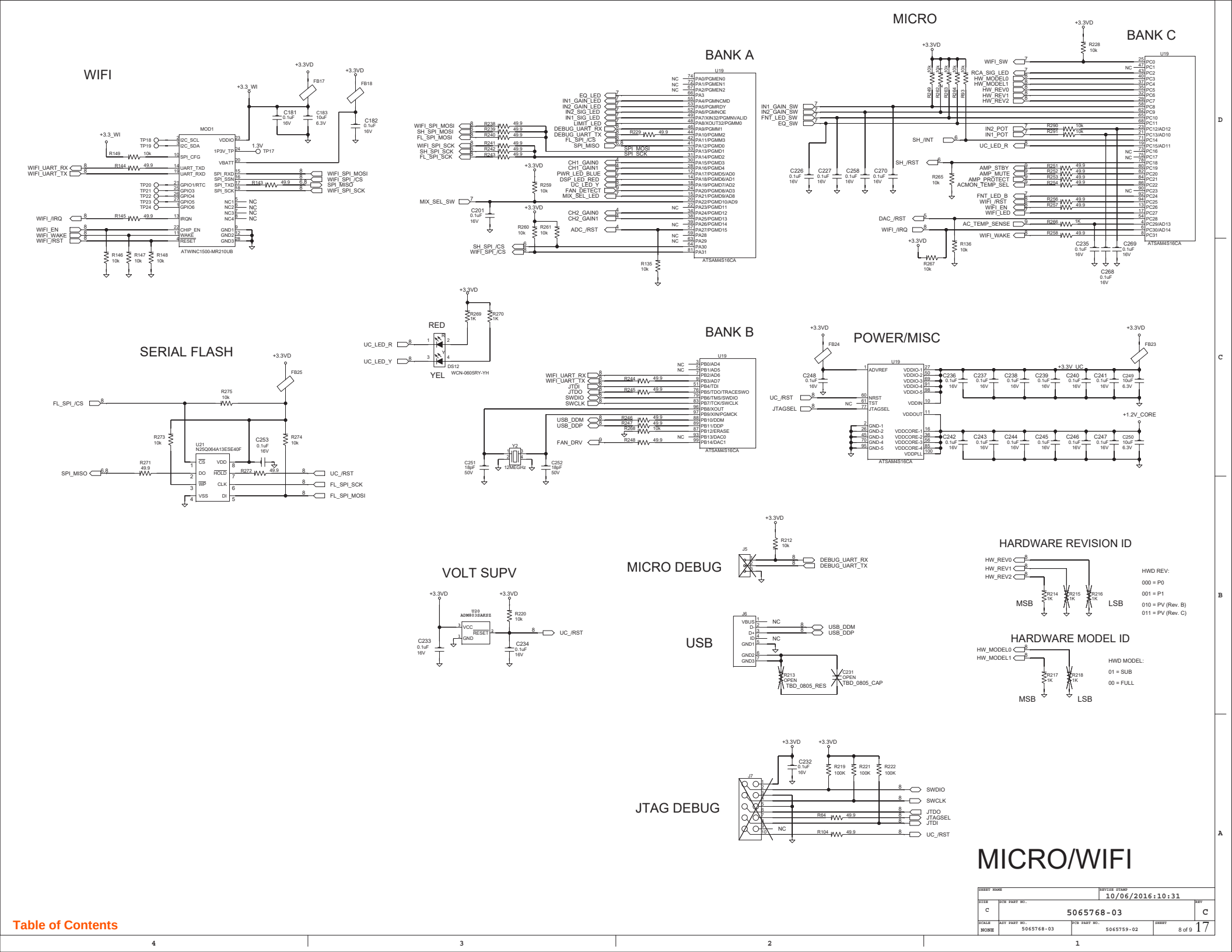
THRU BUTTON/LED FUNCTION		
MODEL	OFF	ON
810, 812, 815	STANDARD	50/50
825, 835	MIX	MIX
815XLF, 818XLF	FLAT	HI-PASS

TUNING BUTTON/LED FUNCTION		
MODEL	OFF	ON
810, 825, 835	NORMAL	BOOST
812, 815	MAIN	MONITOR
815XLF, 818XLF	NON-INVERTED	INVERTED

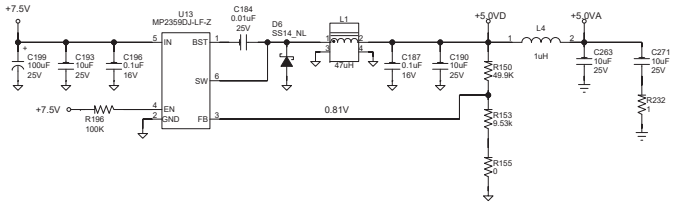
LED/SWITCHES

Table of Contents

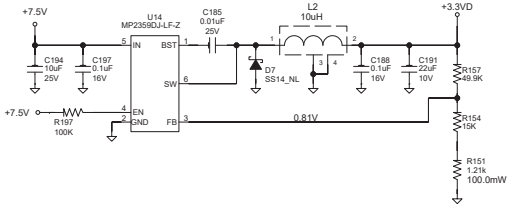
SHEET NAME		REVISE STAMP
		09/06/2016:15:26
SIZE: C	PCB PART NO.: 5065768-03	REV: C
SCALE: NONE	ART PART NO.: 5065768-03	PCB PART NO.: 5065759-02
		SHEET: 7 of 9


WIFI
BANK A
MICRO
BANK C
SERIAL FLASH
BANK B
POWER/MISC
MICRO DEBUG
VOLT SUPV
USB
HARDWARE REVISION ID
HARDWARE MODEL ID
JTAG DEBUG
MICRO/WIFI
HWD REV:
000 = P0
001 = P1
010 = PV (Rev. B)
011 = PV (Rev. C)
HWD MODEL:
01 = SUB
00 = FULL
MSB
LSB
Table of Contents
SHEET NAME
REVISE STAMP
10/06/2016:10:31
SIZE
DCN PART NO.
REV
5065768-03
SCALE
NONE
ATT PART NO.
5065768-03
PCB PART NO.
5065759-02
SHEET
8 of 9
17

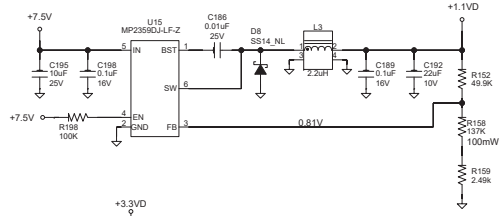
+5VD REGULATOR

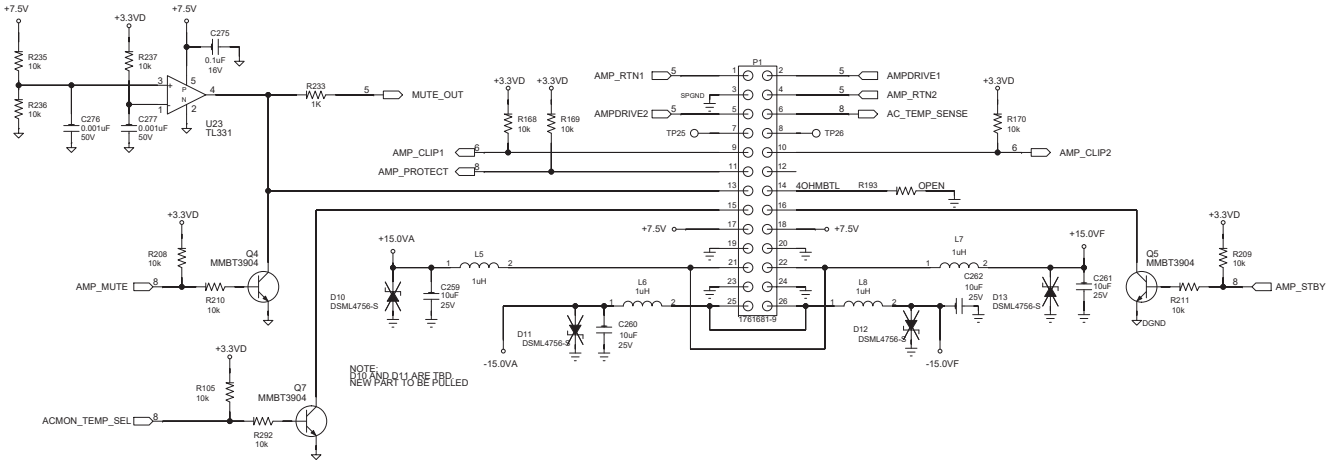


+3.3V REGULATOR

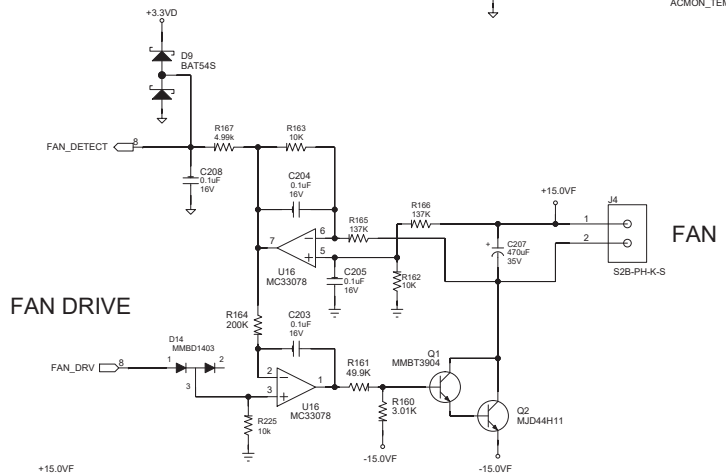


+1.1V REGULATOR

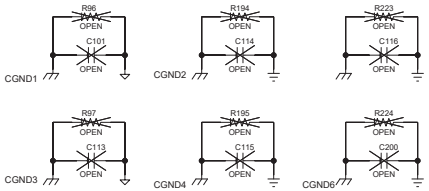


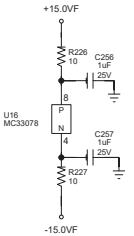


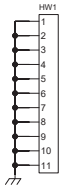
FAN DRIVE



CHASSIS MOUNTING HOLES







XLR SHIELD

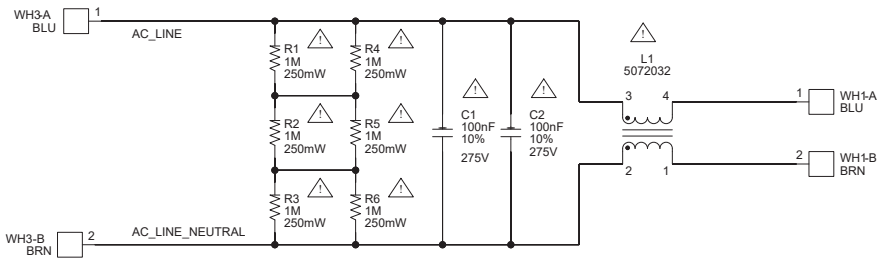
X1 FID2MM X2 FID2MM X3 FID2MM X4 FID2MM
X5 FID2MM X6 FID2MM X7 FID2MM X8 FID2MM

MODEL ID RESISTOR
R156 1.21K

PWR SUPPLY/CONNECTORS/FAN

Table of Contents

SHEET NAME		REVISION STAMP	10/06/2016:09:28
SIZE C	PCB PART NO. 5065768-03		REV C
SCALE NONE	ASY PART NO. 5065768-03	PCB PART NO. 5065759-02	SHEET 9 of 9



CRITICAL TO SAFETY COMPONENTS.
REPLACE WITH SAME COMPONENT ONLY!

PCB1	5071360-01	PCB,RAW,PRX_8xx_LINE_FILTER,BDB	
SHEET NAME: 1		REVISE STAMP: 25/05/2016:09:18	
SIZE: C	SCH PART NO.: 5071362-02		REV: B
SCALE: NONE	ASY PART NO.: 5071362-02	PCB PART NO.: 5071360-01	SHEET: 2 OF 2

Refer to the corresponding Service Bill of Materials (SBOM) to order parts stocked by Harman.

Bill of Materials - System		
Ref ID	Name	Qty
1	TOP PANEL, PRX818S	1
2	T-NUT, 1/4-20 X 5/16, 4 PRONG, CLR ZINC	3
3	PANEL, REAR, PRX818XLFW	1
4	T-NUT,10-32,SPECIAL,PRO	10
5	STIFFENER, CENTER, PRX818XLF	1
6	STIFFENER, PRX818XLFW	2
7	PANEL, RIGHT, PRX818XLFW	1
8	T-NUT 8-32X11/32	16
9	BOTTOM PANEL, PRX818S	1
10	PORT SHELF, PRX818XLFW	1
11	PANEL, CENTER DIV, PRX818XLFW	1
12	GRILL SUPORT, PRX818XLF	2
13	GRILL SUPPORT SIDE, (NEW), PRX818XLFW	2
14	PANEL, BAFFLE, PRX818XLFW	1
15	T-NUT,10-32	8
16	PANEL, LEFT, PRX818XLFW	1
18	Pole mount, M20 3 hole pattern, various	1
19	GASKET, POLE CUP, EON518S	1
20	SCR,1/4-20 X 1 1/4,FLT,PH,UNC,BLK ZNC,L	3
21	AMPLIFIER, PRX 815XLFW/818XLFW	1
23	SCR, 10-32 X 3/4",FLT,PH,BLK ZINC,LCS	10
24	HANDLE ASSY, PRX700	2
25	FSTNR,MSCR,8-32, HANDLE, VXP15	16
26	FOOT, SRX	4
27	SCR,10 X 3/4,PAN,PH,PB,BLK ZINC,LCS	4
28	LED PCB, PRX800	1
29	SCR,6X3/4",PAN,PH,PB,BLK	2
30	LOGO SRX800, EON615	1
31	GRILLE, PRX818S	1
32	SCR, 6 X 3/4,OV,PH,PTCL,BLK ZC,LCS	14
33	M/I, 2278H	1
35	SCR,10-32 X 1,FIL,PH,BLK	8
39	GASKET, HANDLE VTX-V25	2
44	HARNESS ASSY, PRX718XLF	1
50	GASKET 2240H	4
56	ANTENNA, PRX800	1
57	CABLE CLAMP,0.38 I,D	2
58	SCR,8 X 1/2,PAN,PH,PB,BLK ZINC,LCS	2

Bill of Materials - Amplifier		
Ref ID	Description	Qty
1	ENCL,CHAS,PRX800W EM	1
2	ISOLATING SHEET, PRX700	1
3	GAP PAD 1, PRX700	2
4	GAP PAD 2, PRX700	1
5	GAP PAD 3, PRX700	1
6	PSU / AMPLIFIER BOARD ASSEMBLY, PRX700 (A2710515B01A)	1
7	26PIN RIBBON CABLE, PRX700	1
8	CBL,WA,RF,PAS,200mm,50ohm,RP-SMA,MHF	1
9	GASKET, PCB PASS THROUGH	1
10	PASS THRU PCB ASSEMBLY- 2 WAY, PRX700	1
13	MECHASY,PRX 815XLFW/818XLFW,REAR PNL	1
1	ENCL,PNL,BACK,PRX 815XLFW/818XLFW	1
2	AC INLET SOCKET, PRX700	1
3	THRMMGT,FAN,50X50X15,24V,11.6 CFM	1
4	GROUND WIRE, PRX700	1
5	PCB,ASY,PRX_8xx_LINE_FILTER,AV1	1
R1-R6	RES,1M00,1.0%,125mW,TN,1206,CSA TESTED	6
C1-C2	CAP,100n,10%,275V,FILM,PP,RDL	2
WH1	CBL,WA,18AWG,BRN/BLU,PRX800W	1
L1	IDCTR,CHOKE,COMMON MODE,T25/15/13-R10K	1
WH3	CBL,WA,IEC,PRX800W	1
6	PCB,ASY,PRX800W_INPUT_SUB,AV2	1
U9,U11	IC, DAC 2CH 24BIT 192KHZ CS4392 TSSOP20	2
D1-D4,D9	DIO,SCHOTTKY,BAT54S,30V,200mA,SOT23	5
C190,C193-C195,C259-C263,C271	CAP,10u,10%,25V,CER,X7R,1210	10
C105,C129,C175-C180,C183,C249-C250	CAP,10u,20%,6.3V,CER,X5R,0805	11
L2	IND, 10UH 1.8A 5.2X5.2	1
C191-C192,C278-C279	CAP,22u0,20%,10V,CER,X5R,1206	4
S1,S4-S6	SW, 1P1T PB 250V 50MA SM VRT	4
C21-C26,C47-C48,C68-C69,C78-C79,C98-C99,C103-C104,C123-C124,C202,C206,C217-C218,C223,C228,C256-C257,C273-C274	CAP,1.0u,10%,25V,CER,X5R,0603	28
C184-C186	CAP,10n0,5%,25V,CER,X7R,0402	3
U23	IC, COMP LOBIAS TL331I SOT-23-5	1
R9-R10,R36-R37	RES,182R,1%,63mW,THKF,0603	4
R154	RES,15k0,1%,100mW,THKF,0603	1
R151,R156	RES,1k21,1%,100mW,THKF,0603	2
C92-C93,C127-C128	CAP,1n0,5%,50V,CER,C0G,0603	4
D14	DIO,GP,MMBD4148SE,100V,200mA,SOT23	1
U13-U15	IC,VREG,MP2359,ADJ,SW,1.2A,SOT23-6	3
D6-D8	DIO,SCHOTTKY,SS14,1.0A,40V,DO-214AC/SMA	3
C74-C75,C82-C83	CAP,2n2,5%,50V,CER,C0G,0603	4
U12	IC,DSP,ADSP-21489KSWZ-4B,400MHz,176,LQFP	1
Q2	XSTR,BJT,NPN,80V,8A,D-PAK	1

R11-R12,R38-R39,R81-R82,R106-R107,R159	RES,2k49,1%,63mW,THKF,0402	9
FB1-FB4,FB7-FB15,FB17-FB21,FB23-FB25	IDCTR,FBD,600R,100MHZ,1300mA, 0603	21
L4-L8	IDCTR,1U,1A,3.2X2.5X2.0,SM	5
DS11,DS13	OPTO,LED,BLU,473nm,CLR 140mcd,SMD0603	2
DS3,DS5,DS7-DS8	OPTO,LED,GRN,565nm,CLR,30mcd,SM1206	4
DS9-DS10	OPTO,LED,YEL,589nm,DIF,8mcd,SM1206	2
C1,C35,C100,C106-C108,C130-C132,C134-C174,C181-C182,C187-C189,C196-C198,C201,C203-C205,C208,C216,C219-C222,C224-C227,C232-C248,C253-C255,C258,C264-C270,C272,C275,C280	CAP,100n,10%,16V,CER,X7R,0402	103
C199,C229	CAP,100u,20%,25V,EL,85C,6.3x7.7,SM	2
C12-C15,C38-C41,C72-C73,C80-C81,C90-C91,C125-C126	CAP,10u0,20%,25V,EL,85C,4x5.4,SM	16
R65,R68-R70,R92-R93,R105,R134-R140,R142,R146-R149,R162-R163,R168-R170,R190-R191,R206,R208-R212,R220,R225,R228,R230-R231,R235-R237,R249,R259-R265,R267-R268,R273-R275,R288,R290-R292	RES,10k0,1%,63mW,THKF,0402	57
R87-R88,R112-R113,R132-R133,R192,R214,R217,R233,R266,R269-R270,R289,R293	RES,1k00,1%,63mW,THKF,0402	15
C2-C3,C27-C28	CAP,10n0,5%,50V,CER,C0G,0805	4
R64,R98-R99,R104,R119-R131,R143-R145,R201-R202,R229,R238-R248,R251-R254,R256-R258,R271-R272	RES,49R9,1%,63mW,THKF,0201	43
R73-R76,R89-R90,R114-R115	RES,2k00,1%,63mW,THKF,0402	8
JP1-JP2	CON,XLR,M,3P,PLASTIC,TH,VERT	2
R232	RES,1R00,1%,100mW,THKF,0603	1
R155	RES,0R00,+0R05,63mW,THKF,0402	1
R77-R78	RES,49R9,1%,63mW,THKF,0402	2
C276-C277	CAP,1n0,10%,50V,CER,X7R,0402	2
U21	IC,MEM,FLASH,SPI,64Mb,3.3v,SO8W,DANTE	1
Y2	XTLO,XTAL,12.000MHz,18pF,SMD	1
HW1	HDW,SHLD,SRX,4 XLRS	1
C10-C11,C36-C37,C84-C85,C102,C117-C118,C133,C251-C252	CAP,18p0,5%,50V,CER,C0G,0603	12
U24	IC,DG411,QUAD,CMOS,ANALOG SWITCH	1
Y1	XTLO,XTAL,24M576,18p,MTL,LP,SM,TA	1
R182,R184,R186-R189	RES,255R,1%,63MW,THKF,0402	6
R17-R22,R40-R45	RES,1k27,1%,63MW,THKF,0402	12
DS1,DS12	OPTO,LED,RED/YEL,1.6X1.5X0.55MM,0605	2
U20	IC,LIN,SPRVSOR RESET,803,2.93V,SC70	1
R153	RES,9k53,1%,63mW,THKF,0402	1
MOD1	MDL,ELEC,WINC1510-MR210U,WIFI,8Mb	1
U18	IC,CONV,ADC,CS5364,4CH,24BIT,192kHz,114dB,LQFP48	1

J4	CON,HDR,1X2,2MM,RA,TH,ML	1
J10	CON,HDR,VERT,2MM,3POS,TH	1
P1	CON,HDR,2X13,SHRD,0.1",TH,VERT,ML	1
VR1	RES,RTRY,10k0,B,VERT,TH	1
R1,R24,R102-R103	RES,162R,1%,750mW,THKF,2010	4
L3	IDCTR,FBD,2u2,100kHz,3.2A,5.2x5.2,SM	1
L1	IDCTR,FBD,47u0,100kHz,0.7A,5.2x5.2,SM	1
R158,R165-R166	RES,137k,1%,100mW,THKF,0603	3
U19	IC,MIPRCS,SAM4S16CA,1MB FLASH,LQFP100	1
J1-J2	CON,XLR,VERT,AuCoAg,FEM,COMBO,DISASY	2
J6	CON,USB,MICRO,I/O,TYPE B,VERT,RCPT,SM	1
R196-R198,R219,R221-R222	RES,100k,1%,63mW,THKF,0402	6
R141	RES,1M00,1%,63mW,THKF,0402	1
R23,R46,R199-R200,R203-R205,R207,R226-R227,R276-R277,R282-R287	RES,10R0,1%,63mW,THKF,0402	18
R91,R116	RES,1k74,1%,63mW,THKF,0603	2
R5-R8,R13-R16,R28-R35,R79-R80,R100-R101	RES,20k0,1%,63mW,THKF,0402	20
R164	RES,200k,1%,63mW,THKF,0402	1
R94-R95,R117-R118	RES,24R9,1%,63mW,THKF,0402	4
R83-R86,R108-R111,R160	RES,3k01,1%,63mW,THKF,0402	9
R4,R27	RES,4k75,1%,63mW,THKF,0402	2
R2-R3,R25-R26,R66-R67,R71-R72,R167	RES,4k99,1%,63mW,THKF,0402	9
R150,R152,R157,R161	RES,49k9,1%,63mW,THKF,0402	4
C4-C9,C29-C34,C94-C97,C109-C112,C230	CAP,100p,5%,50V,CER,C0G,0402	21
C20,C46,C70-C71,C76-C77	CAP,330p,5%,50V,CER,C0G,0402	6
C16-C19,C42-C45,C86-C89,C119-C122	CAP,470p,5%,50V,CER,C0G,0402	16
C207	CAP, 470UF 35V 20% ELEC RAD	1
Q1,Q3-Q8	XSTR,N-CH,60V 0.2A,MMBT3904,SOT-23	7
U1-U4,U7-U8,U10,U16,U22	IC,AMPL,33078,DUAL_LOW_NOISE,SO8	9
7	HDW,SWCAP,VERT,RND,BLACK,20MM HT,2.4MM SQ MT	4
8	HDW,LTPP,SINGLE SMT LED,DOME,26MM HT	8
9	KNOB, MIXER EON206P	1
10	FSTNR,MSCR,PH-PNH,6-32x3/8,#2,WSHR,BLUZN	9
11	FSTNR,MSCR,TORX,PNH,PLASTITE,4-20X.375	8
12	FSTNR,MSCR,FLH,PH,M3,12mm,STL,BLKZN	2
13	FSTNR,NUT,M3,K-LCK,STL,ZN	2
14	NUT HEX 6-32 KEPS ZINC	2
15	RVT, .315X4.7X.09 SILRUB FAN	4
16	CBL,WA,16AWG,1.5",BLUE	1
17	CBL,WA,16AWG,1.5",BRN	1
18	LBL,PRNT,FCC ID,PRX800 WIFI	1
19	HDW,INSUL,TAPE,PRX800 LTPP	1
14	FSTNR,MSCR,PH-PNH,M3,8mm,BLKZN	20
15	FSTNR,MSCR,POZI,M4,SPR WSHR,10mm,BLUZN	4
16	FSTNR,MSCR,PH-PNH,6-32x1/4,EX SEMS,Zn	1
17	AMP GASKET, PRX700	2