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WORLD HEADQUARTERS

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SERVICE MANUAL

EF10P

SMT Disclaimer

Due to the complex nature of the use of SMT installed components in Yorkville equipment, we highly caution all service technicians in attempting to repair or replace SMT factory installed components.

Many of these components may be glued prior to initial soldering.

Replacing SMT components requires expensive specialized de-soldering equipment and training.

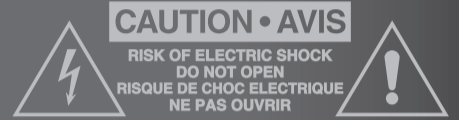
Yorkville Sound will repair and replace defective SMT components to ensure proper quality assurance and installation is maintained.

Quality and Innovation Since 1963
Printed in Canada



- ◀ Enable / Disable
Hold 4 sec. to reset
- LED Flashing:
Ready to Connect
- LED On:
Connected

NOTE: THE YORKVILLE APP IS NEEDED TO CONTROL FUNCTIONS THROUGH BLUETOOTH™ AND IS NOT FOR STREAMING AUDIO!



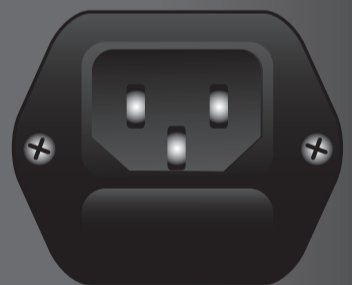
Contains Transmitter Module FCC ID: WAP2011
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that



élite EF10P

600 WATT ACTIVE LOUDSPEAKER ENCLOSURE

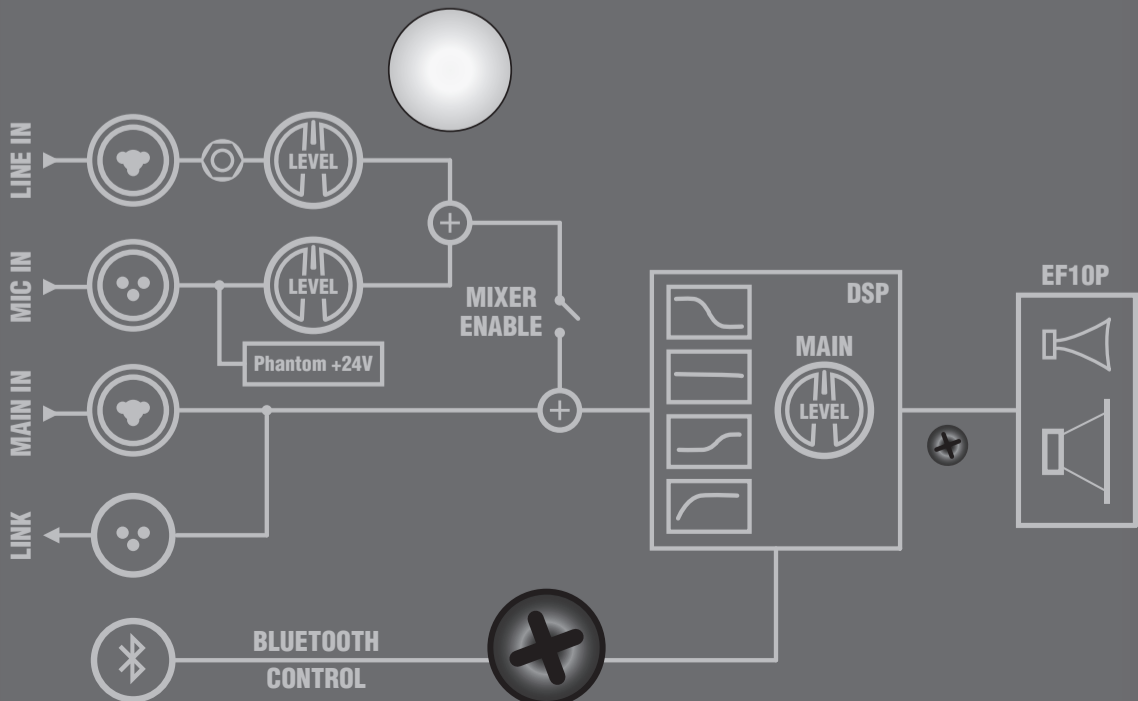
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EF10P	A-Z1772 / 1v5
230V ~ 50Hz 400mA FUSE: T1,6AH 250V	120V ~ 60Hz 800mA FUSE: T3.15AH 250V

DESIGNED & MANUFACTURED BY
YORKVILLE SOUND • TORONTO, CANADA

CAUTION: REPLACE FUSE WITH SAME TYPE AND RATING
ATTENTION: REMPLACER LE FUSIBLE DU MEME TYPE ET DU MEME COURANT NOMINAL



Specifications

	EF10P	EF12P	EF15P	EF215P
System Type	2-Way	2-Way	2-Way	2-Way
Active or Passive	Active	Active	Active	Active
Program Power (watts)	500 watts (1000 watts Peak)	1200 watts (2400 watts Peak)	1200 watts (2400 watts Peak)	1200 watts (2400 watts Peak)
Max SPL (dB)	128dB Peak (122dB Continuous)	131dB Peak (125dB Continuous)	133dB Peak (127dB Continuous)	133dB Peak (127dB Continuous)
Frequency Response (Hz +/- 3dB)	56 - 20k (Hz +/- 3dB)	47 - 16k (Hz +/- 3dB)	43 - 16k	40 - 16k (Hz +/- 3dB)
Crossover Frequency (Hz)	1800	1100	1100	1100
Driver Configuration	10-inch, 1.3-inch Diaphragm	12-inch, 3-inch Diaphragm	15-inch, 3-inch Diaphragm	2 X 15-inch, 3-inch Diaphragm
HF Driver(s)	1.3-inch Voice coil (Titanium Diaphragm)	3-inch Voice coil (Titanium Diaphragm)	3-inch Voicecoil (Titanium Diaphragm)	3-inch Voicecoil (Titanium Diaphragm)
HF Dispersion (°H x °V)	100x40	60x40	60x40	60x40
LF Driver(s)	10-inch Neo magnet w/2.5-inch Voice coil	12-inch Neo magnet w/3-inch Voice coil	15-inch neo magnet w/3-inch Voice coil	2 X 15-inch neo magnet w/3-inch Voice coil
HF Power Amplifier (watts)	100	300	300	300
HF Amplifier Type	2-Tier Class H	3-Tier High Headroom	3-Tier High Headroom	3-Tier High Headroom
LF Power Amplifier (watts)	400	900	900	900
LF Amplifier Type	Class-D	Class-D	Class-D	Class-D
Power Cable	25 ft (7.6m) Heavy Gauge Detachable IEC	25 ft (7.6m) Heavy Gauge Detachable IEC	25 ft (7.6m) Heavy Gauge Detachable IEC	25 ft (7.6m) Heavy Gauge Detachable IEC
In / Out Connections	1 x XLR & 1/4-inch Combi-jack Line Input 1 x XLR microphone Input 1 x XLR & 1/4-inch Combi-jack Main Input 1 x XLR-M Thruput	1 x XLR & 1/4-inch Combi-jack Line Input 1 x XLR microphone Input 1 x XLR & 1/4-inch Combi-jack Main Input 1 x XLR-M Thruput	1 x XLR & 1/4-inch Combi-jack Line Input 1 x XLR microphone Input 1 x XLR & 1/4-inch Combi-jack Main Input 1 x XLR-M Thruput	1 x XLR & 1/4-inch Combi-jack Line Input 1 x XLR microphone Input 1 x XLR & 1/4-inch Combi-jack Main Input 1 x XLR-M Thruput
Input Impedance (Bal/UnBal)	95Kohms / 90kohms	95Kohms / 90kohms	95Kohms / 90kohms	95Kohms / 90kohms
Input Sensitivity (Vrms Sine)	+4dBv / 1.23V	+4dBv / 1.23V	+4dBv / 1.23V	+4dBv / 1.23V
Controls	Mixer Enable Mic Input w/level Line Input w/level DSP Mode (Club, Concert, Vocal, Custom) Sub (100Hz HP Filter) Bluetooth Control Enable Master Level	Mixer Enable Mic Input w/level Line Input w/level DSP Mode (Club, Concert, Vocal, Custom) Sub (100Hz HP Filter) Bluetooth Control Enable Master Level	Mixer Enable Mic Input w/level Line Input w/level DSP Mode (Club, Concert, Vocal, Custom) Sub (100Hz HP Filter) Bluetooth Control Enable Master Level	Mixer Enable Mic Input w/level Line Input w/level DSP Mode (Club, Concert, Vocal, Custom) Sub (100Hz HP Filter) Bluetooth Control Enable Master Level
Bar Handles	1 x Side / 1 x Top	2 x Side / 1 x Top	2 x Side / 1 x Top	4 x Side / 1 x Top
Flypoints	7 x ¼-20 (2 Top, 2 Bottom, 2 Each Side, 1 Pullback)	8 x ¼-20 (2 Top, 2 Bottom, 2 Each Side, 2 Pullback)	8 x ¼-20 (2 Top, 2 Bottom, 2 Each Side, 2 Pullback)	8 x ¼-20 (2 Top, 2 Bottom, 2 Each Side, 2 Pullback)
Pole Mount Adapter (1 3/8"-3.5cm)	1 Bottom (1 3/8-inch / 3.5cm)	1 Bottom (1 3/8-inch / 3.5cm)	1 Bottom (1 3/8-inch / 3.5cm)	N/A
Enclosure Materials	ABS Coated Baltic Birch Plywood	ABS Coated Baltic Birch Plywood	ABS Coated Baltic Birch Plywood	ABS Coated Baltic Birch Plywood
Dimensions (DWH xbackW, inches)	13 x 13.7 x 20 x 9.5	14.25 x 16.25 x 25.5 x 9.75	14 x 18.5 x 30 x 12	14 X 18.5 X 44.5 X 12
Dimensions (DWH xbackW, cm)	33 x 34.8 x 50.8 x 24	36.2 x 41.3 x 64.8 x 24.8	35.6 x 47 x 76 x 30.5	35.6 X 47 X 113 X 30.5
Weight (lbs/kg)	42 / 19.1	59 / 26.8	64 / 29	93 / 42

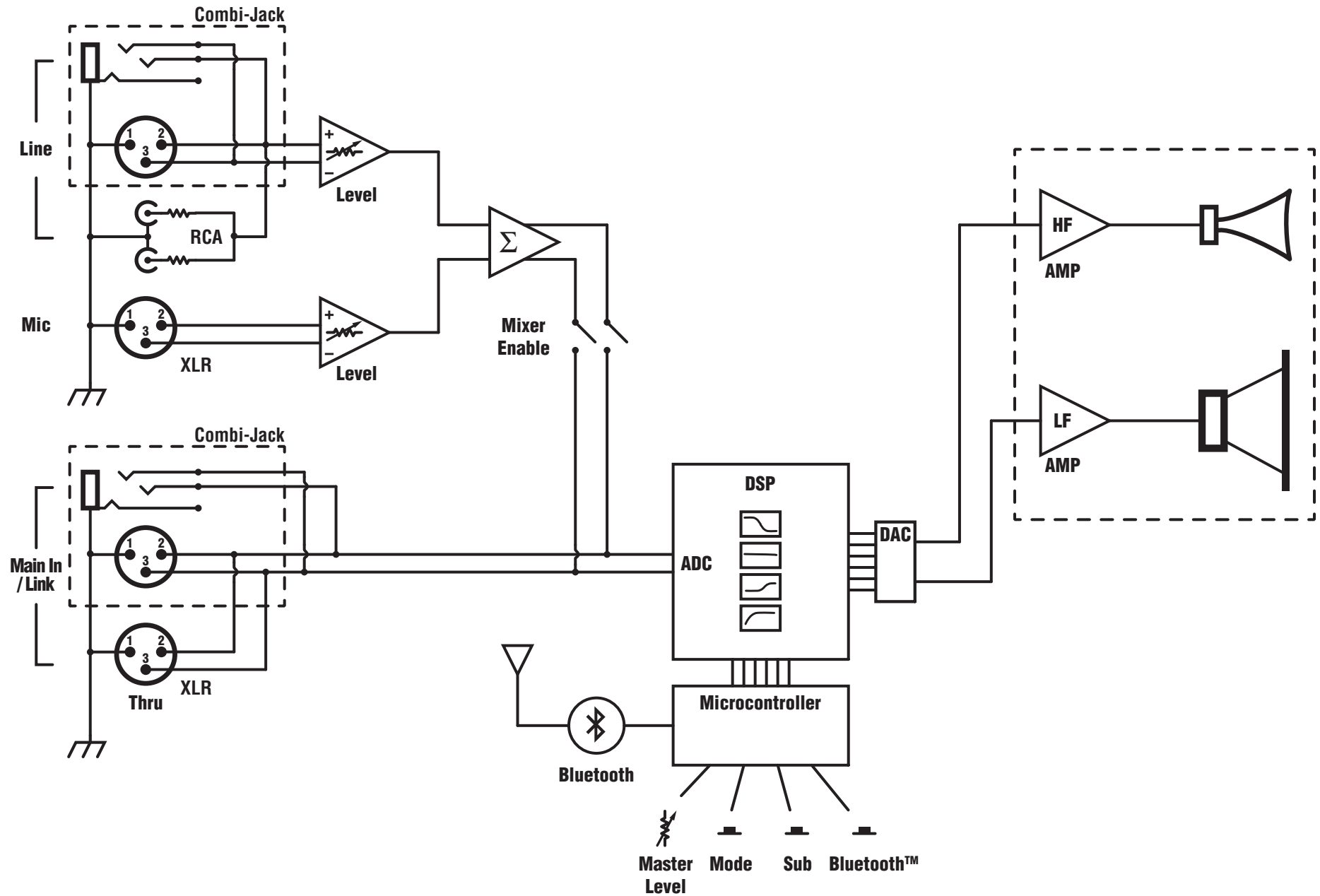
Specifications subject to change without notice

Spécifications				
	EF10P	EF12P	EF15P	EF215P
Type de système	2 voies	2 voies	2 voies	2 voies
Active or Passive	Active	Active	Active	Active
Puissance(watts)	500 watts (1000 watts Pointe)	1200 watts (2400 watts Pointe)	1200 watts (2400 watts Pointe)	1200 watts (2400 watts Pointe)
Max SPL (dB)	128dB Pointe (122dB Continue)	131dB Pointe (125dB Continue)	133dB Pointe (127dB Continue)	133dB Pointe (127dB Continue)
Réponse en Fréquence (Hz +/- 3dB)	56 - 20k (Hz +/- 3dB)	47 - 16k (Hz +/- 3dB)	43 - 16k	40 - 16k (Hz +/- 3dB)
Fréquence de Coupure (Hz)	1800	1100	1100	1100
Configuration de haut-parleur	10-pouces, Membrane 1.3-pouce	12-pouces, Membrane 3-pouces	15-pouces, Membrane 3-pouces	2 X 15-inch, 3-inch Diaphragm
Driver HF	Bobine de 1.3-pouce (Membrane de Titane)	Bobine de 3-pouce (Membrane de Titane)	Bobine de 3-pouce (Membrane de Titane)	Bobine de 3-pouce (Membrane de Titane)
Dispersion HF (°H x °V)	100x40	60x40	60x40	60x40
Haut-parleur Fréquences Graves	Aimant Néo 10-pouces avec Bobine 2.5-pouces	Aimant Néo 12-pouces avec Bobine 3-pouces	Aimant Néo 15-pouces avec Bobine 3-pouces	2 X 15-inch neo magnet w/3-inch Voice coil
Amplificateur de Puissance HF (watts)	100	300	300	300
Amplificateur de Puissance HF (type)	2-étages Classe H	3-étage, extension dynamique élevée	3-étage, extension dynamique élevée	3-étage, extension dynamique élevée
Amplificateur de Puissance Basses Fréquences (watts)	400	900	900	900
Amplificateur de Puissance Basses Fréquences (type)	Classe-D	Classe-D	Classe-D	Classe-D
Cordon d'alimentation	25 pieds (7.6m) Jauge élevé amovible CEI	25 pieds (7.6m) Jauge élevé amovible CEI	25 pieds (7.6m) Jauge élevé amovible CEI	25 pieds (7.6m) Jauge élevé amovible CEI
Connexions d'entrée / sorties	Entrée Ligne Combi-jack 1 x XLR & 1/4-pouce Entrée pour microphone 1 x XLR Entrée Principale Combi-jack 1 x XLR & 1/4-pouce 1 x XLR-M "Thruput"	Entrée Ligne Combi-jack 1 x XLR & 1/4-pouce Entrée pour microphone 1 x XLR Entrée Principale Combi-jack 1 x XLR & 1/4-pouce 1 x XLR-M "Thruput"	Entrée Ligne Combi-jack 1 x XLR & 1/4-pouce Entrée pour microphone 1 x XLR Entrée Principale Combi-jack 1 x XLR & 1/4-pouce 1 x XLR-M "Thruput"	Entrée Ligne Combi-jack 1 x XLR & 1/4-pouce Entrée pour microphone 1 x XLR Entrée Principale Combi-jack 1 x XLR & 1/4-pouce 1 x XLR-M "Thruput"
Impédance d'entrée (Sym/Asym)	95Kohms / 90kohms	95Kohms / 90kohms	95Kohms / 90kohms	95Kohms / 90kohms
Sensibilité d'entrée (Vrms Sine)	+4dBv / 1.23V	+4dBv / 1.23V	+4dBv / 1.23V	+4dBv / 1.23V
Commandes	Activation du mixeur Niveau de l'entrée Mic Niveau de l'entrée Ligne Mode DSP (Club, Concert, Vocal, Custom) Sub (Filtre HP 100Hz) Activation de la fonction Bluetooth Niveau Principal (Master)	Activation du mixeur Niveau de l'entrée Mic Niveau de l'entrée Ligne Mode DSP (Club, Concert, Vocal, Custom) Sub (Filtre HP 100Hz) Activation de la fonction Bluetooth Niveau Principal (Master)	Activation du mixeur Niveau de l'entrée Mic Niveau de l'entrée Ligne Mode DSP (Club, Concert, Vocal, Custom) Sub (Filtre HP 100Hz) Activation de la fonction Bluetooth Niveau Principal (Master)	Activation du mixeur Niveau de l'entrée Mic Niveau de l'entrée Ligne Mode DSP (Club, Concert, Vocal, Custom) Sub (Filtre HP 100Hz) Activation de la fonction Bluetooth Niveau Principal (Master)
Poignées	1 x Côté / 1 x Dessus	2 x Côté / 1 x Dessus	2 x Côté / 1 x Dessus	4 x Side / 1 x Top
Points de suspension	7 x 1/4-20 (2 Dessus, 2 Dessous, 2 Chaque côté, 1 Pullback)	8 x 1/4-20 (2 Dessus, 2 Dessous, 2 Chaque côté, 2 Pullback)	8 x 1/4-20 (2 Dessus, 2 Dessous, 2 Chaque côté, 2 Pullback)	8 x 1/4-20 (2 Dessus, 2 Dessous, 2 Chaque côté, 2 Pullback)
Adaptateur de montage sur poteau (1 3/8"-3.5cm)	1 Dessous (1 3/8-pouce / 3.5cm)	1 Dessous (1 3/8-pouce / 3.5cm)	1 Dessous (1 3/8-pouce / 3.5cm)	N/A
Matériaux de construction	Contreplaqué de bouleau baltique enduit d'ABS	Contreplaqué de bouleau baltique enduit d'ABS	Contreplaqué de bouleau baltique enduit d'ABS	Contreplaqué de bouleau baltique enduit d'ABS
Dimensions (PLH xl arrière, pouces)	13 x 13.7 x 20 x 9.5	14.25 x 16.25 x 25.5 x 9.75	14 x 18.5 x 30 x 12	14 X 18.5 X 44.5 X 12
Dimensions (PLH xl arrière, cm)	33 x 34.8 x 50.8 x 24	36.2 x 41.3 x 64.8 x 24.8	35.6 x 47 x 76 x 30.5	35.6 X 47 X 113 X 30.5
Poids (livres/kg)	42 / 19.1	59 / 26.8	64 / 29	93 / 42

Spécifications sujettes à changement sans préavis

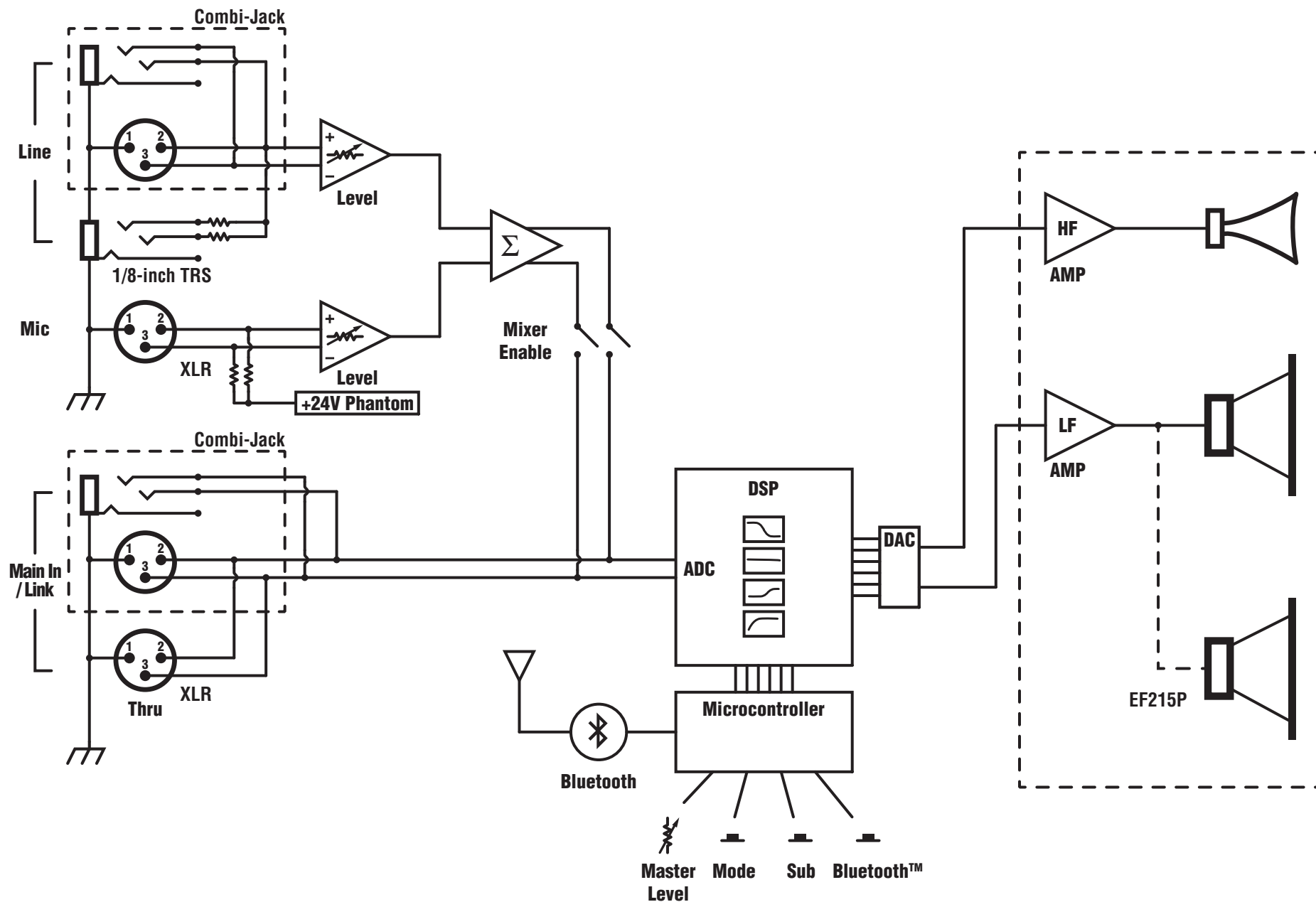
Block Diagram for EF12P & EF15P (REV1)

DESIGNED & MANUFACTURED BY YORKVILLE SOUND



Block Diagram for EF10P, EF12P, EF15P (REV2) & EF215P

DESIGNED & MANUFACTURED BY YORKVILLE SOUND

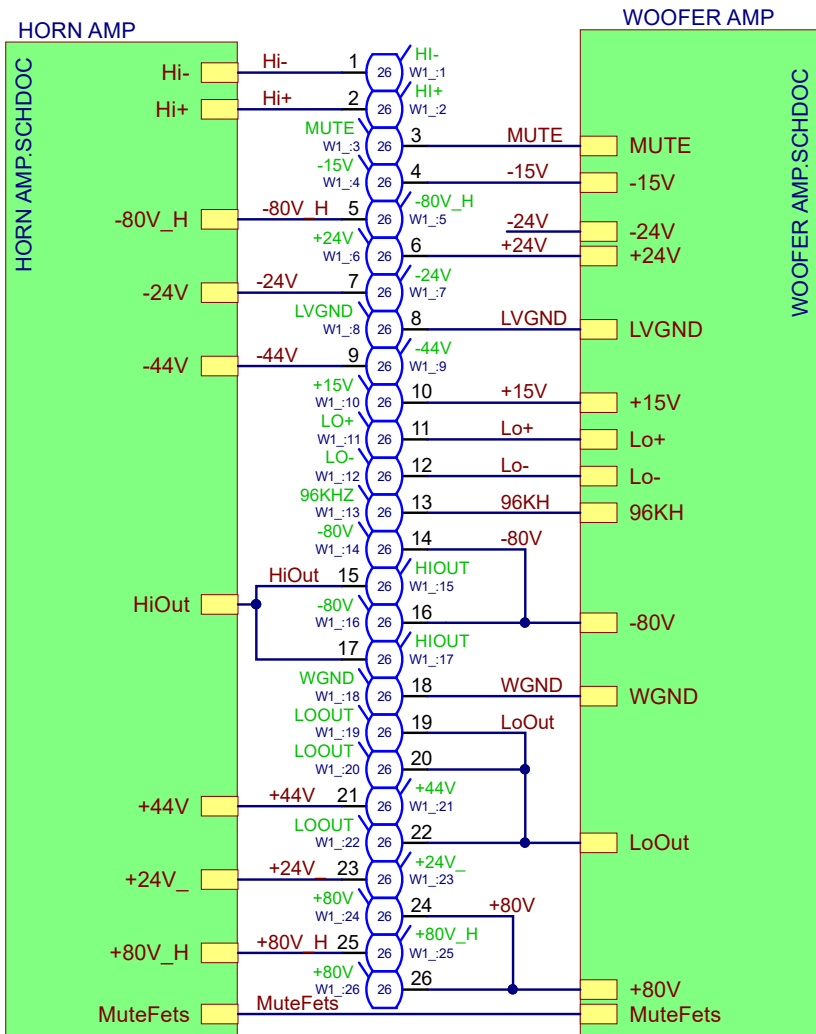


M1802 Parts Reference List 12/13/2018

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
C1		1U 25V 20%CAP 1206 SMT X7R	C95		680P 50V 5%CAP 0805 SMT COG	J2	4140	XLR MALE PCB MT VERT 24MM A-SERIES	R73		W125 1K02 0.1% 0805 SMT RES	R175		W125 1K02 0.1% 0805 SMT RES
C2		100N 16V 10%CAP 0603 SMT X7R	C96		100N 50V 5%CAP 0805 SMT X7R	J3	4090	1/4IN &XLR PCB MT VERT COMBO NCJ6-V	R74		W125 10K00 0.1% 0805 SMT RES	R176		W125 1K50 1% 0805 SMT RES
C3		1U 25V 20%CAP 1206 SMT X7R	C97		100N 50V 5%CAP 0805 SMT X7R	J4	4218	3.5MM JCK PCB MT V ST 5PIN SUB 4186	R75		W125 10K00 0.1% 0805 SMT RES	R177		W100 100R 1% 0805 SMT RES
C4		100N 16V 10%CAP 0603 SMT X7R	C98		100N 16V 10%CAP 0603 SMT X7R	J5	4010	XLR FEML PCB MT VERT 24MM AA-SERIES	R76		W125 1K02 0.1% 0805 SMT RES	R178		W125 1K50 1% 0805 SMT RES
C5		470P 50V 5%CAP 0603 SMT NPO	C99		10U 16V 10%CAP 0805 SMT X6S	K1	3696	RELAY 1C 02AMP DC24 006MA PC-S	R77		W100 10K0 1% 0805 SMT RES	R179		W125 1K50 1% 0805 SMT RES
C6		100N 16V 10%CAP 0603 SMT X7R	C100		470P 50V 5%CAP 0603 SMT NPO	L1		FERRITE BEAD 600R @100MHZ 0805 SMT	R78		W125 10K00 0.1% 0805 SMT RES	R180		W100 100R 1% 0805 SMT RES
C7		10U 10V 20%CAP 0805 SMT Y5V	C101		2NT 100V 10%CAP 0805 SMT X7R	L2		FERRITE BEAD 600R @100MHZ 0805 SMT	R79		W125 10K00 0.1% 0805 SMT RES	R181		W125 3K92 1% 0805 SMT RES
C8		100N 16V 10%CAP 0603 SMT X7R	C102		100N 50V 5%CAP 0805 SMT X7R	L3		FERRITE BEAD 600R @100MHZ 0805 SMT	R80		W100 10K0 1% 0805 SMT RES	R182		W125 1K50 1% 0805 SMT RES
C9		100N 16V 10%CAP 0603 SMT X7R	C103		100N 16V 10%CAP 0603 SMT X7R	L4		FERRITE BEAD 600R @100MHZ 0805 SMT	R81		W100 2K74 1% 0805 SMT RES	R183		W100 100R 1% 0805 SMT RES
C10		100N 16V 10%CAP 0603 SMT X7R	C104		10U 10V 10%CAP 1206 SMT X5R	L8		2.2UH COIL SMT	R82		W125 330R 0.5% 0805 SMT RES	R184		W100 4K75 1% 0805 SMT RES
C11		10U 10V 20%CAP 0805 SMT Y5V	C105		10U 10V 10%CAP 1206 SMT X5R	L9		120.0UH COIL SR4018T 1R6 SMT	R83		W125 1K02 0.1% 0805 SMT RES	R185		W125 1K50 1% 0805 SMT RES
C12		100N 16V 10%CAP 0603 SMT X7R	C106		100N 16V 10%CAP 0603 SMT X7R	L10		FERRITE BEAD 600R @100MHZ 0805 SMT	R84		W125 1K02 0.1% 0805 SMT RES	R186		W100 4K75 1% 0805 SMT RES
C13		100N 16V 10%CAP 0603 SMT X7R	C107		10U 10V 10%CAP 1206 SMT X5R	L12		FERRITE BEAD 600R @100MHZ 0805 SMT	R85		W125 330R 0.5% 0805 SMT RES	R187		W125 1K50 1% 0805 SMT RES
C14		10U 10V 20%CAP 0805 SMT Y5V	C108		100N 16V 10%CAP 0603 SMT X7R	LD1		YEL LED L1V7 20MA 1206 SMT	R86		W100 10K0 1% 0805 SMT RES	R188		W100 100R 1% 0805 SMT RES
C15		100N 16V 10%CAP 0603 SMT X7R	C109		10U 10V 10%CAP 1206 SMT X5R	LD2		RD/GN/BL LED 2V1 20MA 0606 SMT	R87		W125 10K00 0.1% 0805 SMT RES	R189		W250 22R 5% 1206 SMT RES
C16		3N3 25V 5%CAP 0805 SMT NPO	C110		15P 50V 5%CAP 0603 SMT NPO	FD1		RED LED I1V5 20MA 1206 SMT	R88		W125 10K00 0.1% 0805 SMT RES	R192		W125 1K50 1% 0805 SMT RES
C17		220N 50V 10%CAP 1206 SMT X7R	C111		100N 16V 10%CAP 0603 SMT X7R	P1	4434	10K B LIN 9MM DETENT P32	R89		W100 2K74 1% 0805 SMT RES	R193		W125 1K50 1% 0805 SMT RES
C18		10U 10V 20%CAP 0805 SMT Y5V	C112		10U 10V 10%CAP 1206 SMT X5R	P2	4432	10K B LIN 9MM P32	R90		W100 10K0 1% 0805 SMT RES	R194		W250 1R 5% 1206 SMT RES
C19		100N 16V 10%CAP 0603 SMT X7R	C113		1N5 50V 5%CAP 0805 SMT NPO	F3	4432	10K B LIN 9MM P32	R91		W100 10K0 1% 0805 SMT RES	R195		W250 10R 5% 1206 SMT RES
C20		10U 10V 20%CAP 0805 SMT Y5V	C114		15N 50V 5%CAP 0805 SMT COG	PCB1	M1802BLANK	2_OZ 2SD 46.06SQIN 02PR EF15/12/10P	R92		W100 475R 1% 0805 SMT RES	R196		W125 30K 0.5% 0805 SMT RES
C21		10U 10V 10%CAP 1206 SMT X5R	C115		680P 50V 5%CAP 0805 SMT COG	Q1		MMBT5401 PNP SOT-23 SMT	R93		W125 30K 0.5% 0805 SMT RES	R197		W125 30K 0.5% 0805 SMT RES
C22		47P 50V 5%CAP 0805 SMT NPO	C116		680P 50V 5%CAP 0805 SMT COG	Q2		12.288MHZ CRYSTAL 4-PIN SMT	R94		W100 2K74 1% 0805 SMT RES	R198		W250 10R 5% 1206 SMT RES
C23		10U 10V 20%CAP 0805 SMT Y5V	C117		100N 50V 5%CAP 0805 SMT X7R	Q3		MMBT414 NPN DARL SOT-23 SMT	R95		W100 10K0 1% 0805 SMT RES	R199		W125 47R 5% 0805 SMT RES
C24		100N 16V 10%CAP 0603 SMT X7R	C118		10U 16V 10%CAP 0805 SMT X6S	Q7		MMBT414 NPN DARL SOT-23 SMT	R96		W125 1K02 0.1% 0805 SMT RES	R200		W125 47R 5% 0805 SMT RES
C25		10U 10V 20%CAP 0805 SMT Y5V	C119		4N7 50V 10%CAP 0805 SMT X7R	Q8		MMBT5401 PNP SOT-23 SMT	R97		W125 30K 0.5% 0805 SMT RES	R202		W125 1M 5% 0805 SMT RES
C26		10U 10V 20%CAP 0805 SMT Y5V	C120		4N7 50V 10%CAP 0805 SMT X7R	Q9		2N7002 NCH FET SOT-23 SMT T&R	R98		W125 64K9 1% 0805 SMT RES	R209		W100 100R 1% 0805 SMT RES
C27		10U 10V 20%CAP 0805 SMT Y5V	C121		1N5 50V 5%CAP 0805 SMT NPO	Q10		2N7002 NCH FET SOT-23 SMT T&R	R99		W100 475R 1% 0805 SMT RES	R210		W250 619R0 1% 1206 SMT RES
C28		10U 10V 20%CAP 0805 SMT Y5V	C122		100N 50V 5%CAP 0805 SMT X7R	Q11		2N7002 NCH FET SOT-23 SMT T&R	R100		W100 475R 1% 0805 SMT RES	R211		W250 619R0 1% 1206 SMT RES
C29		100N 16V 10%CAP 0603 SMT X7R	C123		15N 50V 5%CAP 0805 SMT COG	R1		W125 47R 5% 0805 SMT RES	R101		W100 2K74 1% 0805 SMT RES	R212		W250 619R0 1% 1206 SMT RES
C30		100N 16V 10%CAP 0603 SMT X7R	C124		10U 16V 10%CAP 0805 SMT X6S	R2		W100 475R 1% 0805 SMT RES	R102		W125 1K02 0.1% 0805 SMT RES	R213		W250 619R0 1% 1206 SMT RES
C31		100N 16V 10%CAP 0603 SMT X7R	C125		680P 50V 5%CAP 0805 SMT COG	R3		W125 1K02 0.1% 0805 SMT RES	R103		W100 20K5 1% 0805 SMT RES	R214		W125 562R0 1% 0805 SMT RES
C32		100N 16V 10%CAP 0603 SMT X7R	C126		680P 50V 5%CAP 0805 SMT COG	R5		W100 100R 1% 0805 SMT RES	R104		W100 10K0 1% 0805 SMT RES	R215		W100 100R 1% 0805 SMT RES
C33		100N 16V 10%CAP 0603 SMT X7R	C127		47P 50V 5%CAP 0805 SMT NPO	R7		W100 10K0 1% 0805 SMT RES	R105		W100 10K0 1% 0805 SMT RES	R216		W100 100R 1% 0805 SMT RES
C34		100N 50V 5%CAP 0805 SMT X7R	C128		47P 50V 5%CAP 0805 SMT NPO	R8		W125 30K 0.5% 0805 SMT RES	R106		W125 47R 5% 0805 SMT RES	R217		W100 100R 1% 0805 SMT RES
C35		100N 16V 10%CAP 0603 SMT X7R	C129		47P 50V 5%CAP 0805 SMT NPO	R9		W125 17K8 1% 0805 SMT RES	R107		W100 10K0 1% 0805 SMT RES	S1	3439	DPDPT MINI PC VERT MOMENTARY
C36		10U 10V 20%CAP 0805 SMT Y5V	C130		22U 16V 5%CAP 5X5.5 SMT ELC	R10		W100 200R 1% 0805 SMT RES	R108		W100 4K75 1% 0805 SMT RES	S2	3522	DPDPT MINI PC VERT SNP ALTY
C37		100N 16V 10%CAP 0603 SMT X7R	C131		22U 16V 5%CAP 5X5.5 SMT ELC	R11		W125 47R 5% 0805 SMT RES	R109		W100 15K0 1% 0805 SMT RES	S3	3439	DPDPT MINI PC VERT MOMENTARY
C50		47P 50V 5%CAP 0805 SMT NPO	C132		100P 50V 10%CAP 0805 SMT NPO	R12		W125 47R 5% 0805 SMT RES	R110		W125 1K800 0.1% 0805 SMT RES	S4	3522	DPDPT MINI PC VERT SNP ALTY
C52		100N 50V 5%CAP 0805 SMT X7R	C133		10U 10V 20%CAP 0805 SMT Y5V	R13		W125 47R 5% 0805 SMT RES	R111		W125 1K800 0.1% 0805 SMT RES	U1		PROC4 BLE MODULE 14X19MM SMT
C54		10U 50V 10%CAP 0805 SMT Y5V	C134		10U 10V 20%CAP 0805 SMT Y5V	R14		W125 47R 5% 0805 SMT RES	R112		W100 4K75 1% 0805 SMT RES	U2		ADAU1401 28/56 DSP 2AD4DA SMT
C55		15U 35V 10%CAP 6032 SMT TNT	C135		100N 16V 10%CAP 0603 SMT X7R	R15		W100 100R 1% 0805 SMT RES	R113		W100 4K75 1% 0805 SMT RES	U3		MKL15264V4H4 48MHZ MCU SMT LOFP64
C56		100U 10V 20%CAP 3528 SMT TNT	C136		100N 16V 10%CAP 0603 SMT X7R	R16		W100 100R 1% 0805 SMT RES	R114		W100 200R 1% 0805 SMT RES	U4		74LVC1G80 SNGL FILFPLFOP SMT SOT753
C57		10U 10V 10%CAP 1206 SMT X5R	C137		100U 10V 20%CAP 3528 SMT TNT	R17		W100 100R 1% 0805 SMT RES	R115		W100 200R 1% 0805 SMT RES	U5		LM2671 3V3 REG 0A5 SMT SO8
C58		2N7 100V 10%CAP 0805 SMT X7R	C138		10U 10V 20%CAP 0805 SMT Y5V	R18		W125 64K9 1% 0805 SMT RES	R116		W100 200R 1% 0805 SMT RES	U6		33078 DUAL OPAMP SMT SO-8
C59		100N 50V 5%CAP 0805 SMT X7R	C139		100N 16V 10%CAP 0603 SMT X7R	R19		W125 1K800 0.1% 0805 SMT RES	R117		W100 200R 1% 0805 SMT RES	U7		33078 DUAL OPAMP SMT SO-8
C60		100N 50V 5%CAP 0805 SMT X7R	C140		10U 10V 20%CAP 0805 SMT Y5V	R20		W125 1K800 0.1% 0805 SMT RES	R118		W100 4K75 1% 0805 SMT RES	U8		33078 DUAL OPAMP SMT SO-8
C61		100N 50V 5%CAP 0805 SMT X7R	C141		100N 50V 5%CAP 0805 SMT X7R	R21		W125 47R 5% 0805 SMT RES	R119		W100 4K75 1% 0805 SMT RES	U9		33078 DUAL OPAMP SMT SO-8
C62		100P 50V 10%CAP 0805 SMT NPO	C142		10U 16V 20%CAP 5X5.4 SMT NP	R22		W125 47R 5% 0805 SMT RES	R120		W125 1K800 0.1% 0805 SMT RES	U10		33078 DUAL OPAMP SMT SO-8
C63		470P 50V 5%CAP 0603 SMT NPO	C143		100N 50V 5%CAP 0805 SMT X7R	R23		W100 475R 1% 0805 SMT RES	R121		W125 1K800 0.1% 0805 SMT RES	U11		33078 DUAL OPAMP SMT SO-8
C64		470P 50V 5%CAP 0603 SMT NPO	C144		100N 50V 5%CAP 0805 SMT X7R	R24		W100 475R 1% 0805 SMT RES	R122		W100 4K75 1% 0805 SMT RES	U12		MC33079D QUAD OPAMP SMT SO14
C65		5N6 50V 5%CAP 0805 SMT COG	C147		33U 25V 20%CAP 6.3X5.5 SMT EL	R25		W125 47R 5% 0805 SMT RES	R123		W100 15K0 1% 0805 SMT RES	U13		33078 DUAL OPAMP SMT SO-8
C66		10U 16V 20%CAP 5X5.4 SMT NP	C148		33U 25V 20%CAP 6.3X5.5 SMT EL	R26		W125 47R 5% 0805 SMT RES	R124		W125 64K9 1% 0805 SMT RES	U15		LM1117 REGULATOR 5V0 SMT SOT223
C67		470P 50V 5%CAP 0603 SMT NPO	C149		1U 50V 20%CAP 4.3X3.9 SMT ELC	R27		W100 100R 1% 0805 SMT RES	R125		W125 3K92 1% 0805 SMT RES	U16		PCM1796 DAC STEREO DIFF S50P28 SMT
C68		2N7 100V 10%CAP 0805 SMT X7R	C150		100N 50V 5%CAP 0805 SMT X7R	R45		W125 2K2 5% 0805 SMT RES	R126		W125 64K9 1% 0805 SMT RES	U17		MC33079D QUAD OPAMP SMT SO14
C69		100N 50V 5%CAP 0805 SMT X7R	D4		CDSF4148 75V 0A15 1005 SMT	R47		W125 1K800 0.1% 0805 SMT RES	R127		W125 3K92 1% 0805 SMT RES	U19		AK5572 STDIF 32BIT ADC SMT QFN48
C70		100N 50V 5%CAP 0805 SMT X7R	D6		MMB25231B 5V1 0W35 5% SMT ZEN	R48		W125 1K02 0.1% 0805 SMT RES	R128		W125 3K32 1% 0805 SMT RES	U20		74LVC1G80 SNGL FILFPLFOP SMT SOT753
C71		100N 50V 5%CAP 0805 SMT X7R	D24		MBR4340T3 40V 3A SHTKY 403D SMT	R49		W100 15K0 1% 0805 SMT RES	R129		W125 3K32 1% 0805 SMT RES	W6	2328	8 CIR XH-HEADER
C72		2N7 100V 10%CAP 0805 SMT X7R	D25		CDSF4148 75V 0A15 1005 SMT	R50		W100 475R 1% 0805 SMT RES	R130		W125 3K32 1% 0805 SMT RES	W7	2327	6 CIR XH-HEADER 0.098IN
C73		100P 50V 10%CAP 0805 SMT NPO	D26		CDSF4148 75V 0A15 1005 SMT	R51		W125 10K00 0.1% 0805 SMT RES	R131		W125 3K32 1% 0805 SMT RES			

M1803 Parts Reference List 12/13/2018

REF	YS #	Description	REF	YS #	Description	REF	YS #	Description
AI-ASS	M1803-59	EF15P/12P/10P PS/AMP V2	R233		W100 4K75 1% 0805 SMT RES			
C38		4U7 25V 20%CAP 4X5.5 SMT ELC	R234		W100 4K75 1% 0805 SMT RES			
C39		1U 50V 20%CAP 4.3X3.9 SMT ELC	R235		W100 4K75 1% 0805 SMT RES			
C40	5910	4700U 100V 10%CAP BLK 35X40MM 4PS	R236		W100 4K75 1% 0805 SMT RES			
C41	5670	3300U 63V 20%CAP 18X40MM CUT5MM EL	R237		W100 4K75 1% 0805 SMT RES			
C42	5860	3300U 35V 20%CAP BLK 16X35.5MM EL	R238		W100 4K75 1% 0805 SMT RES			
C43	5860	3300U 35V 20%CAP BLK 16X35.5MM EL	R239		W100 4K75 1% 0805 SMT RES			
C44	5670	3300U 63V 20%CAP 18X40MM CUT5MM EL	R240		W100 4K75 1% 0805 SMT RES			
C45	5910	4700U 100V 10%CAP BLK 35X40MM 4PS	R241		W125 64K9 1% 0805 SMT RES			
C49		2N7 100V 10%CAP 0805 SMT X7R	R242		W125 64K9 1% 0805 SMT RES			
C51	5933	4U7 100DC10%CAP BLK RAD POLYE FLM	R243		W125 64K9 1% 0805 SMT RES			
C53		10U 16V 20%CAP 5X5.4 SMT NP	R244		W125 17K8 1% 0805 SMT RES			
C145		1U 50V 20%CAP 4.3X3.9 SMT ELC	R245		W100 20K5 1% 0805 SMT RES			
C146		1U 50V 20%CAP 4.3X3.9 SMT ELC	R246		W125 17K8 1% 0805 SMT RES			
C151		150P 1000V 5%CAP 1206 SMT COG	R247		W100 20K5 1% 0805 SMT RES			
C152		150P 1000V 5%CAP 1206 SMT COG	R248		W125 17K8 1% 0805 SMT RES			
C153		150P 1000V 5%CAP 1206 SMT COG	R249		W100 20K5 1% 0805 SMT RES			
C154		47N 100V 10%CAP 1206 SMT X7R	W2	6535	HEADER SIL (FEMALE) 26 SOCKET			
D1		CDSF4148 75V 0A15 1005 SMT	W6	2328	8 CIR XH-HEADER 0.098IN			
D2		CDSF4148 75V 0A15 1005 SMT	W7	2327	6 CIR XH-HEADER 0.098IN			
D3		MMBZ5252B 24V0 0W35 5% SMT ZEN	W8	4145	9PIN 3X3 POWER PIN HEADER			
D5		3SMAJ5932B 20V 3W0 DO214AC SMT ZEN	W12	3538	24 PIN BREAKAWAY LOCK .156			
D7		MM3Z18VT1G 18V0 0W2 5% SMT ZEN						
D8		CDSF4148 75V 0A15 1005 SMT						
D9		CDSF4148 75V 0A15 1005 SMT						
D10		ES3D 200V 3A0 D214 SMT SMC						
D11		ES3D 200V 3A0 D214 SMT SMC						
D12		ES3D 200V 3A0 D214 SMT SMC						
D13		ES3D 200V 3A0 D214 SMT SMC						
D14		ES3D 200V 3A0 D214 SMT SMC						
D15		ES3D 200V 3A0 D214 SMT SMC						
D16		ES3D 200V 3A0 D214 SMT SMC						
D17		ES3D 200V 3A0 D214 SMT SMC						
D18		ES3D 200V 3A0 D214 SMT SMC						
D19		ES3D 200V 3A0 D214 SMT SMC						
D20		ES3D 200V 3A0 D214 SMT SMC						
D21		ES3D 200V 3A0 D214 SMT SMC						
D22		ES3D 200V 3A0 D214 SMT SMC						
D23		ES3D 200V 3A0 D214 SMT SMC						
F1		FUSE LAG 0A4 250V T&R						
L6		4.7UH 20% COIL 12MM SMT						
L7		192UH CHOKE 74T20AWG/77256MAGNTKS						
L11		486UH COIL COMMON MODE 8A SMT						
Q4		MMBT5401 PNP SOT-23 SMT						
Q5		T810-600G-TR 8A TRIAC D2PAK SMT						
Q6		MBS4992 TO92 8V5 DIAC T&R						
Q15		MJD112 NPN DARL DPAK3 SMT						
Q16		MMBT3904 NPN SOT-23 SMT						
R28		W125 2K2 5% 0805 SMT RES						
R29		W125 1M 5% 0805 SMT RES						
R30		W100 10K0 1% 0805 SMT RES						
R31		FUSE SLOW 7A 125V SMT 6125						
R34		FUSE SLOW 7A 125V SMT 6125						
R38		W250 10R 5% 1206 SMT RES						
R42		W125 30K 0.5% 0805 SMT RES						
R44		W250 10R 5% 1206 SMT RES						
R46		W250 22R 5% 1206 SMT RES						
R144		W125 17K8 1% 0805 SMT RES						
R145		W125 17K8 1% 0805 SMT RES						
R146		W125 17K8 1% 0805 SMT RES						
R204		W250 10R 5% 1206 SMT RES						
R205		W250 10R 5% 1206 SMT RES						
R206		W100 4R7 5% 0805 SMT RES						
R207		W100 15K0 1% 0805 SMT RES						
R208		W100 475R 1% 0805 SMT RES						
R218		W100 15K0 1% 0805 SMT RES						
R219		W100 15K0 1% 0805 SMT RES						
R220		W100 15K0 1% 0805 SMT RES						
R221		W100 15K0 1% 0805 SMT RES						
R222		W100 15K0 1% 0805 SMT RES						
R223		W100 15K0 1% 0805 SMT RES						
R224		W125 64K9 1% 0805 SMT RES						
R225		W125 64K9 1% 0805 SMT RES						
R226		W125 64K9 1% 0805 SMT RES						
R227		W100 7K50 1% 0805 SMT RES						
R228		W100 7K50 1% 0805 SMT RES						
R229		W100 7K50 1% 0805 SMT RES						
R230		W100 7K50 1% 0805 SMT RES						
R231		W100 4K75 1% 0805 SMT RES						
R232		W100 4K75 1% 0805 SMT RES						



Section: **TOP SHT**

Product(s): **EF10P-E10P**

PCB#: M1501

Rev#: V06

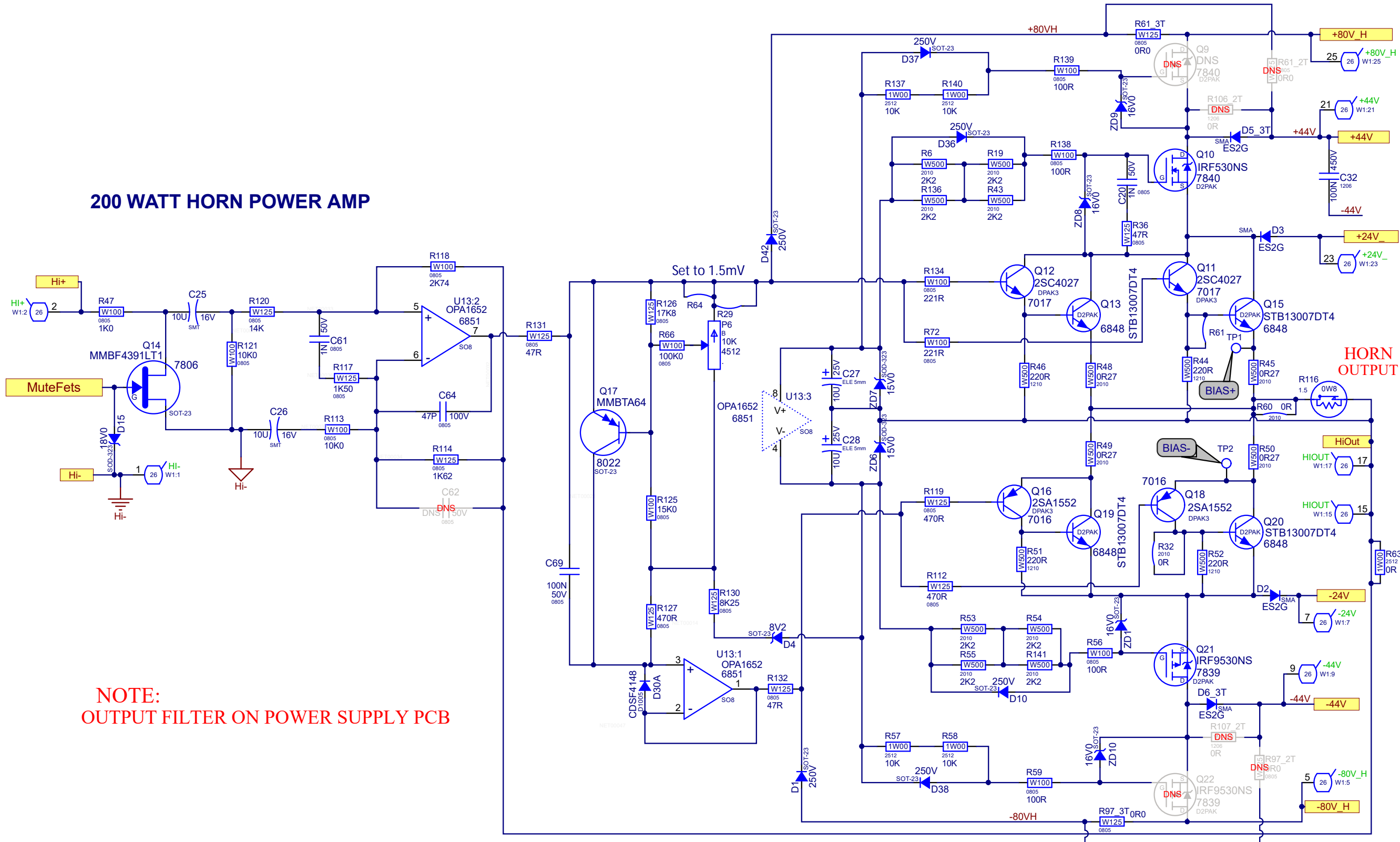
En :R. Himbeault

Sheet 1 Of 4

Modified: 2024-08-13

File: Top Sheet.SchDoc

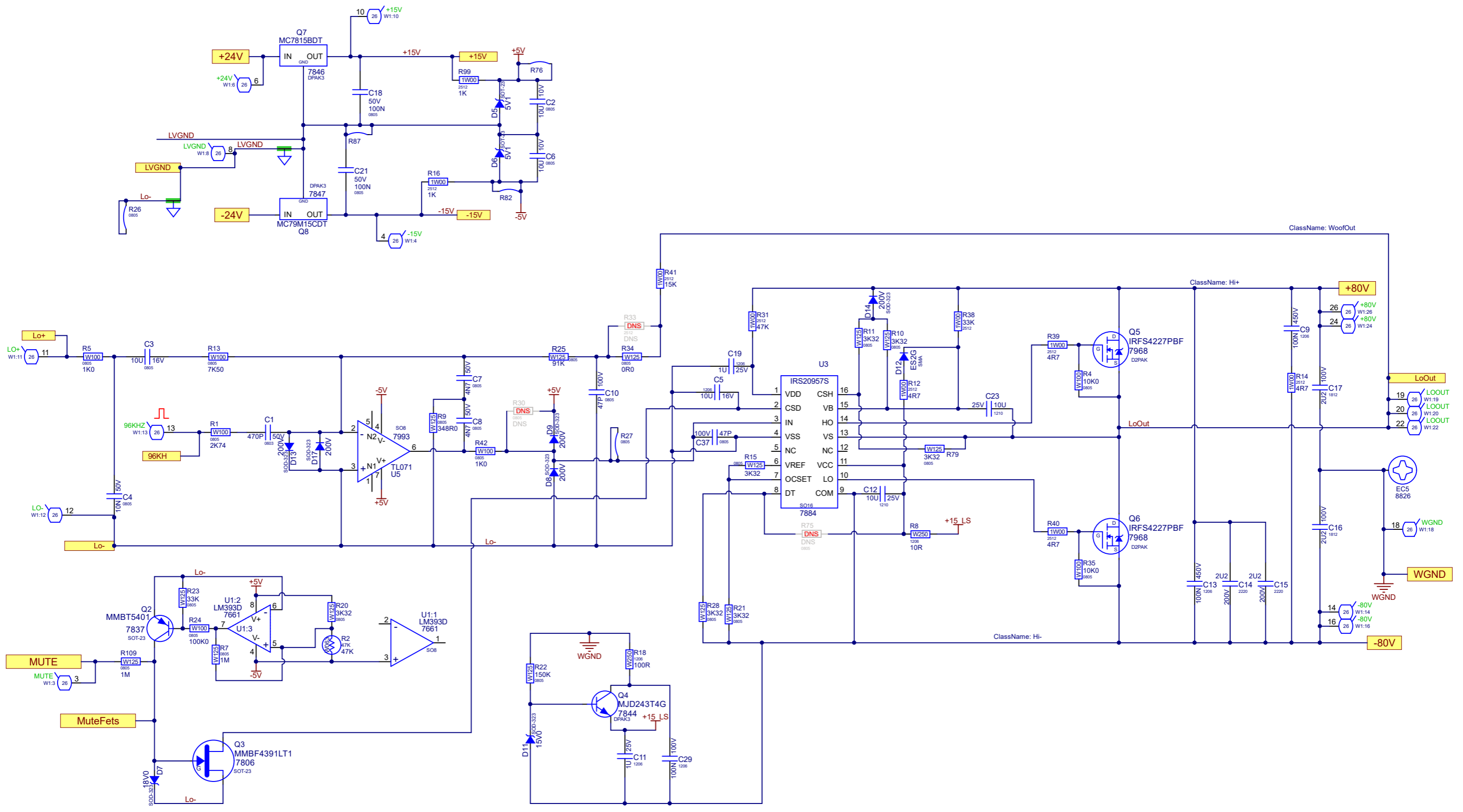
200 WATT HORN POWER AMP



NOTE:
OUTPUT FILTER ON POWER SUPPLY PCB



Section: Horn Amplifier			
Product(s): EF10P-E10P			
PCB#: M1501	Rev#: V06	En : R. Himbeault	Sheet 2 Of 4
Modified: 2024-08-14		File: HORN AMP.SCHDOC	

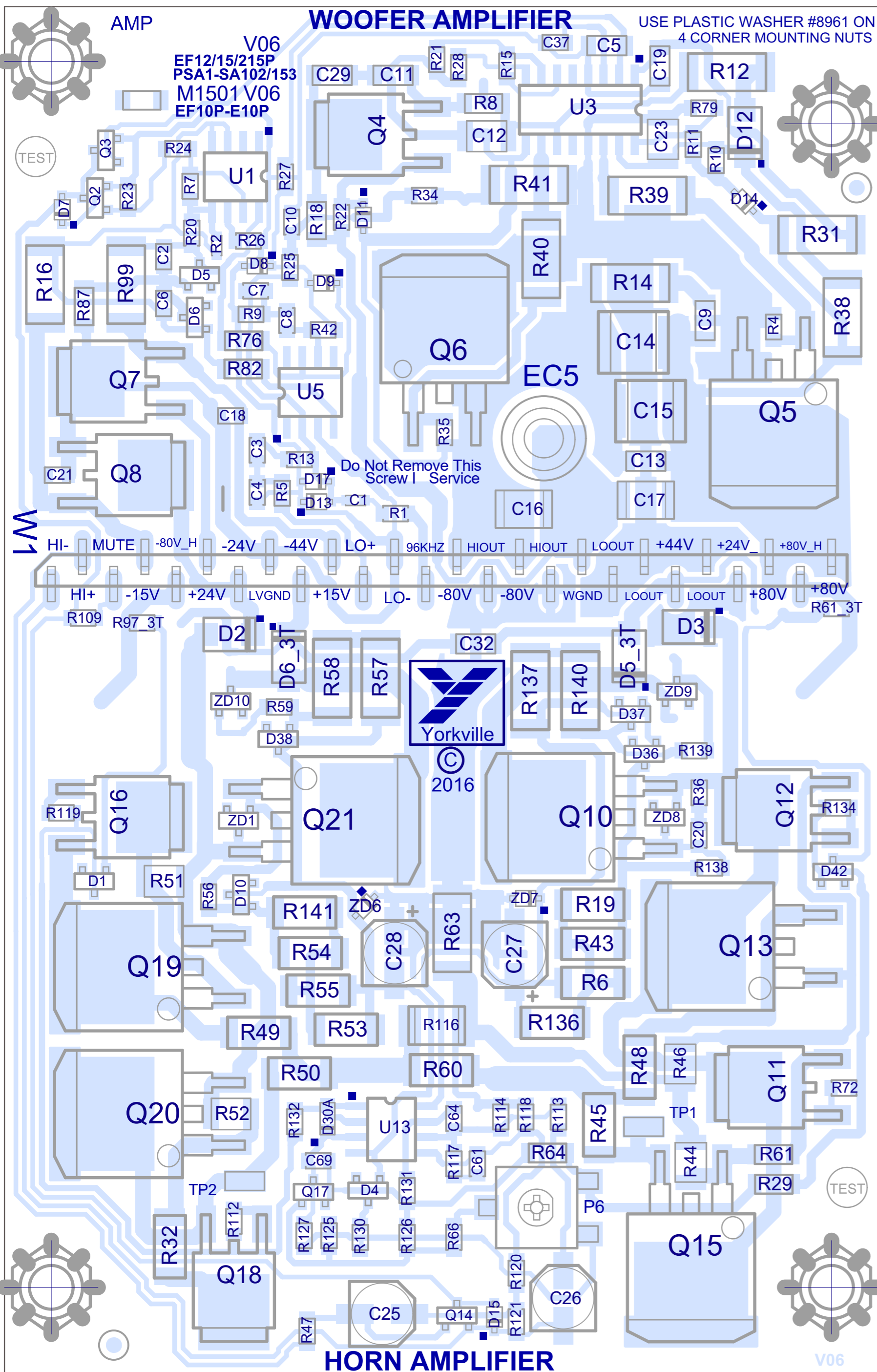


DESIGN HISTORY AND INFORMATION

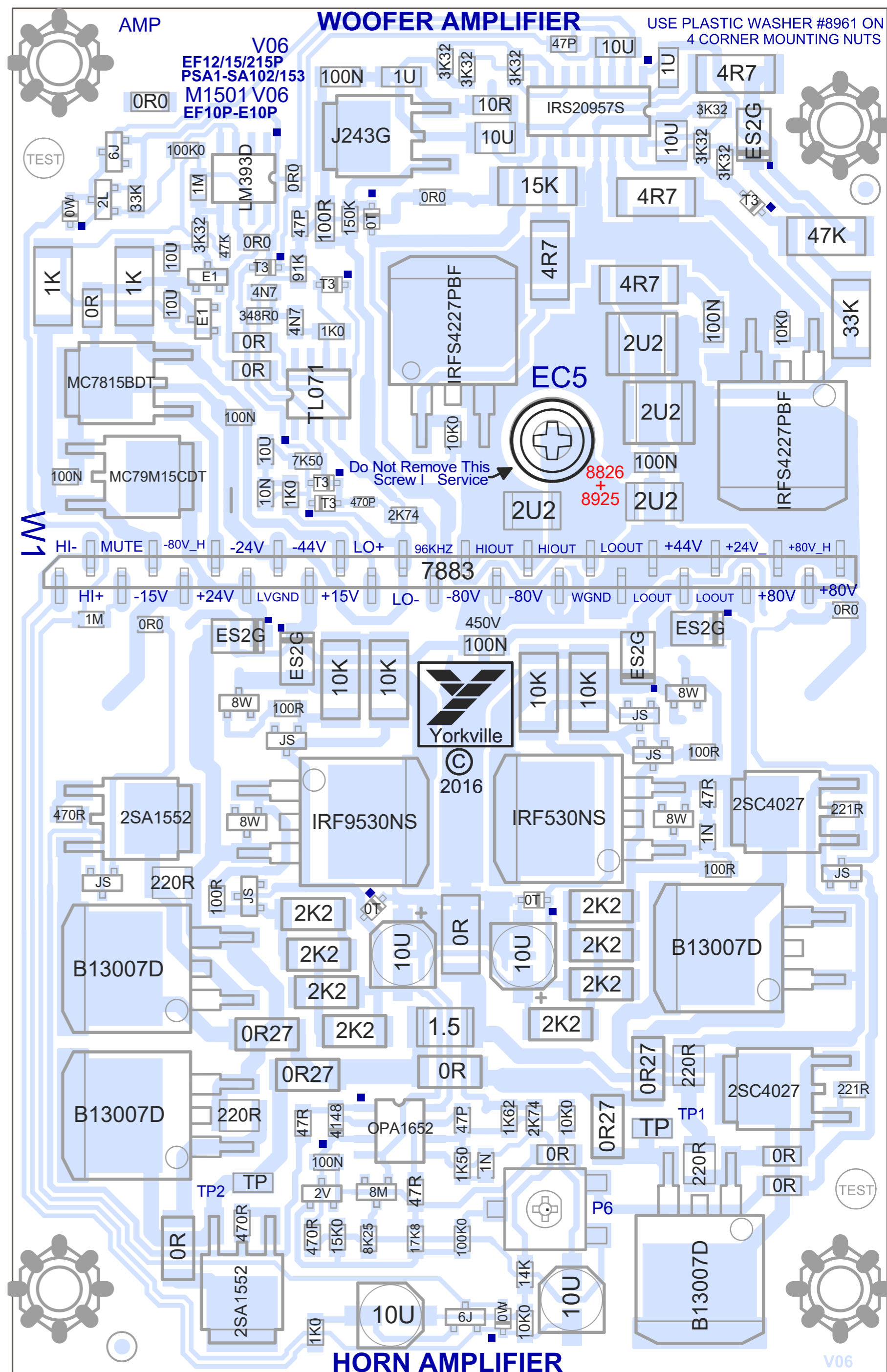
CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	OCT-4-2017	V02	.	RELEASED VERSION 2.
2	APR-27-2018	V03	9129	MOVED R61_3T AWAY FROM 80V CONNECTOR PAD
3	Au -08-2019	V04	9449	C12&C23 to 10U 25V. Change VBE res to center trim pot. Add D4 to cut turn off noise.
4	FEB-03-2020	V05	9508	Added 1N cap and 47R resistor between gate and source of Q10
5	NOV-04-2021	.	9660	FOR DETAILS SEE PC 9660 FOR M1501.
6	SEP-12-2024	V06	10052	Increased thickness of pcb to .093 in. to use round screw YS 8826 and washer YS 8925. Sputtering of copper and base is no longer available
7
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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Designators



Values

PCB ASSEMBLY DOCUMENTATION

PRODUCTION NOTES

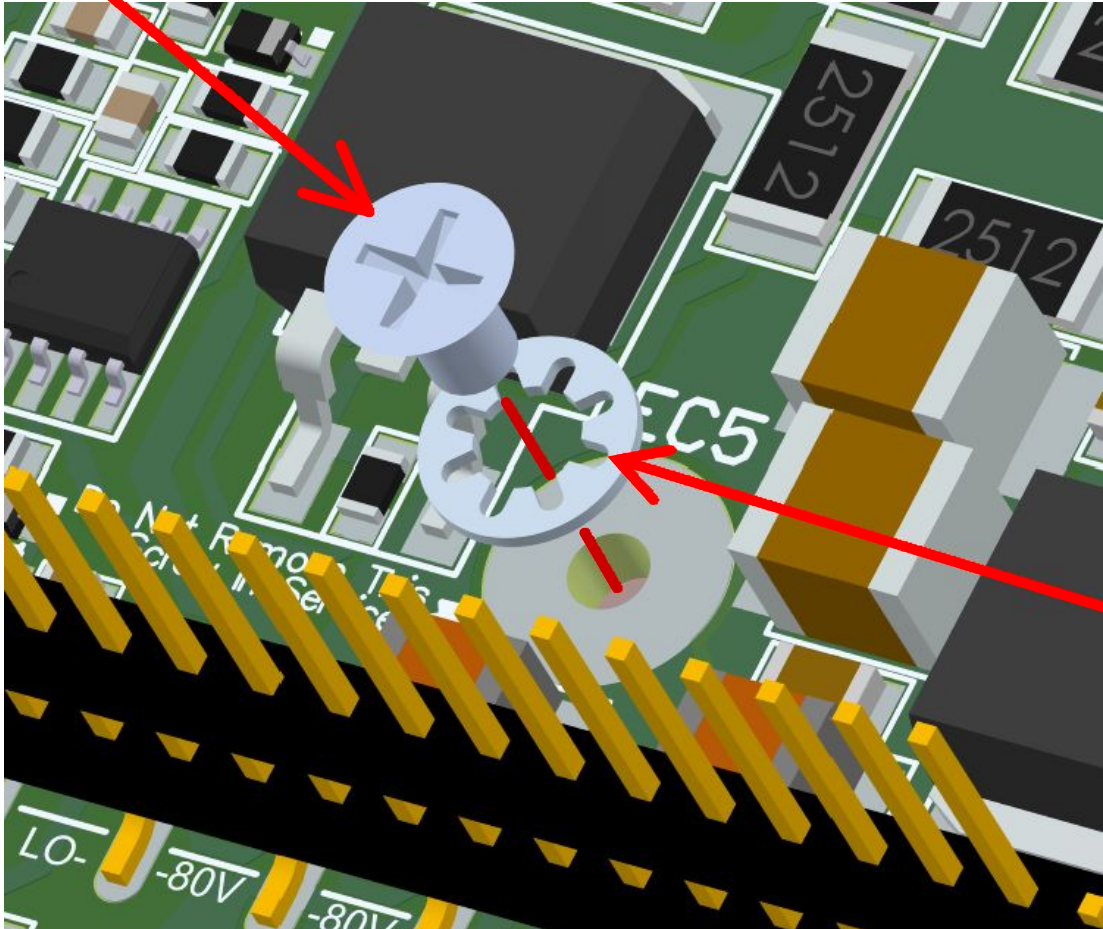
SMT

Place Connector (7883) on all boards on panel BEFORE Reflow Oven .

PCBSA

Fasten screw YS 8826 and washer YS 8925 to boards on panel at location marked EC5 as shown in picture below. Set screw fastener force to 2 inch lbs. Check that the screw is inserted all the way down to panel.

YS# 8826



Properly fitted and seated screw and washer

YS# 8925

PCB HARDWARE

SCREWS AND BOLTS

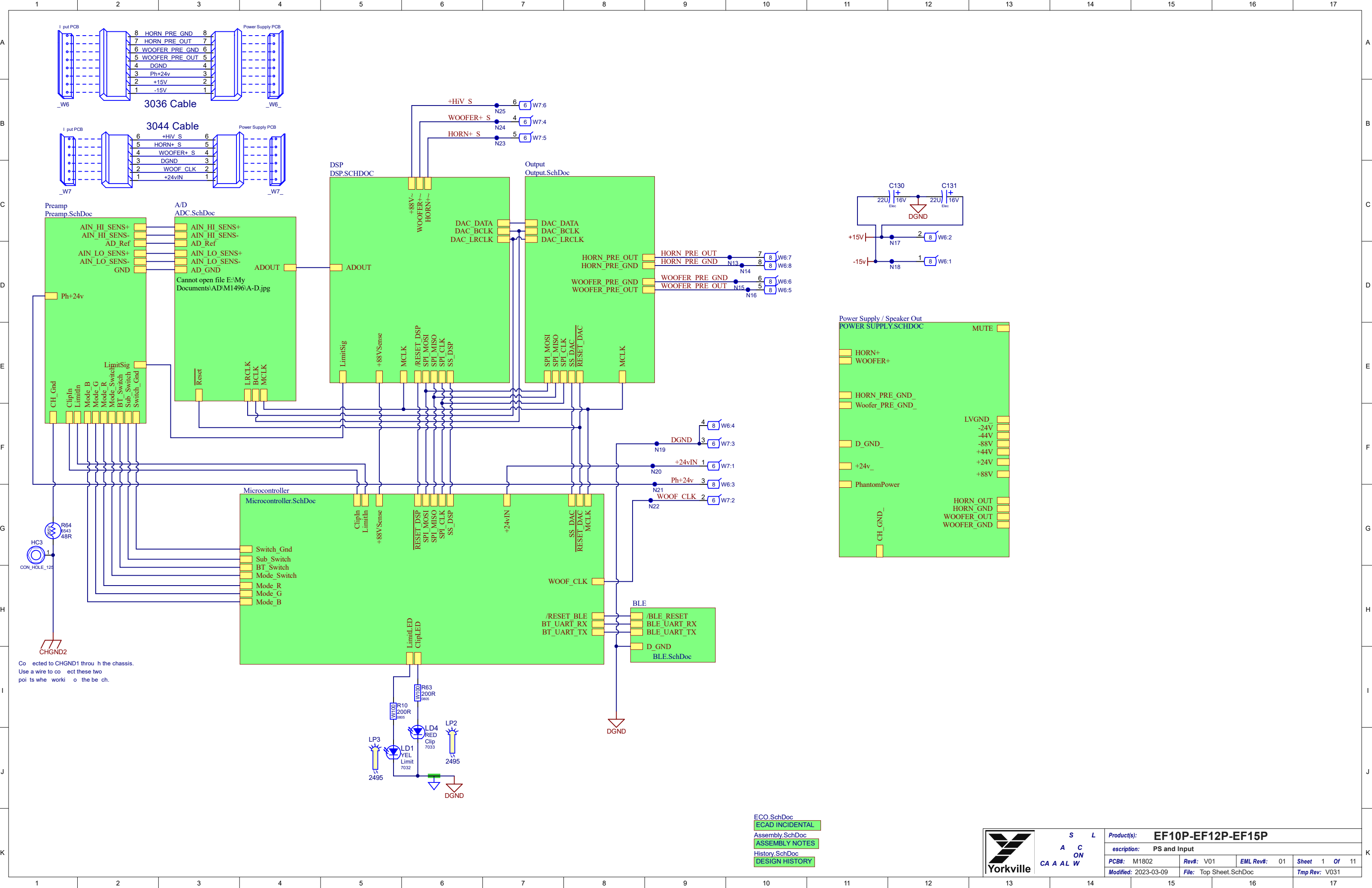


DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	OCT-4-2017	V02	.	RELEASED VERSION 2.
2	APR-27-2018	V03	9129	MOVED R61_3T AWAY FROM 80V CONNECTOR PAD
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4	FEB-03-2020	V05	9508	Added 1N cap and 47R resistor between gate and source of Q10
5	NOV-04-2021	.	9660	FOR DETAILS SEE PC 9660 FOR M1501.
6	SEP-12-2024	V06	10052	Increased thickness of pcb to .093 in. to use round screw YS 8826 and washer YS 8925. Sputtering of copper and base is no longer available
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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Connected to CHGND1 through the chassis. Use a wire to connect these two points where working on the board.

- ECO.SchDoc
- ECAD INCIDENTAL
- Assembly.SchDoc
- ASSEMBLY NOTES
- History.SchDoc
- DESIGN HISTORY



SALES
ACON
CORPORATION

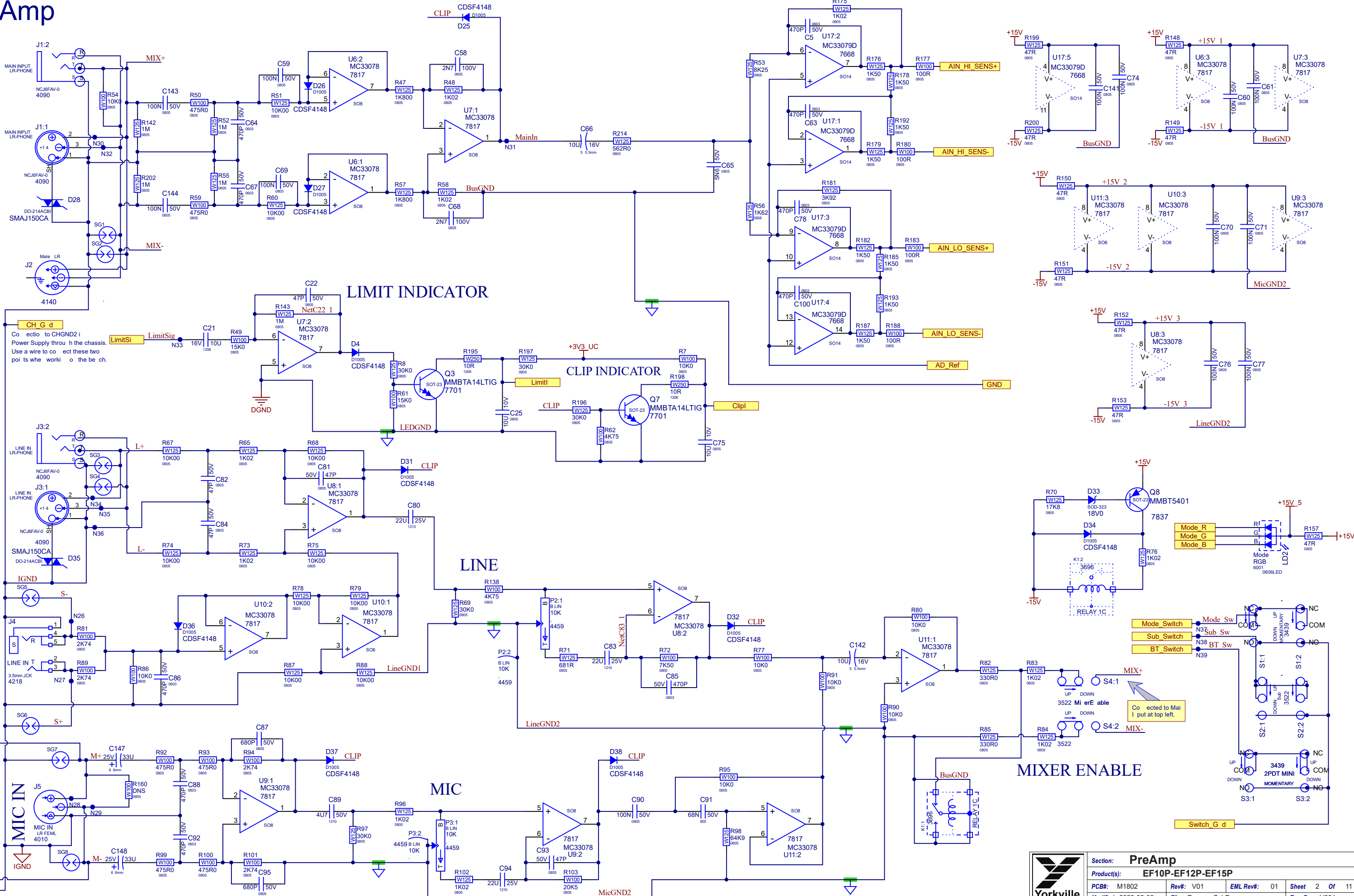
Product(s): EF10P-EF12P-EF15P			
description: PS and Input			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 1 Of 11
Modified: 2023-03-09		File: Top Sheet.SchDoc	Temp Rev: V031

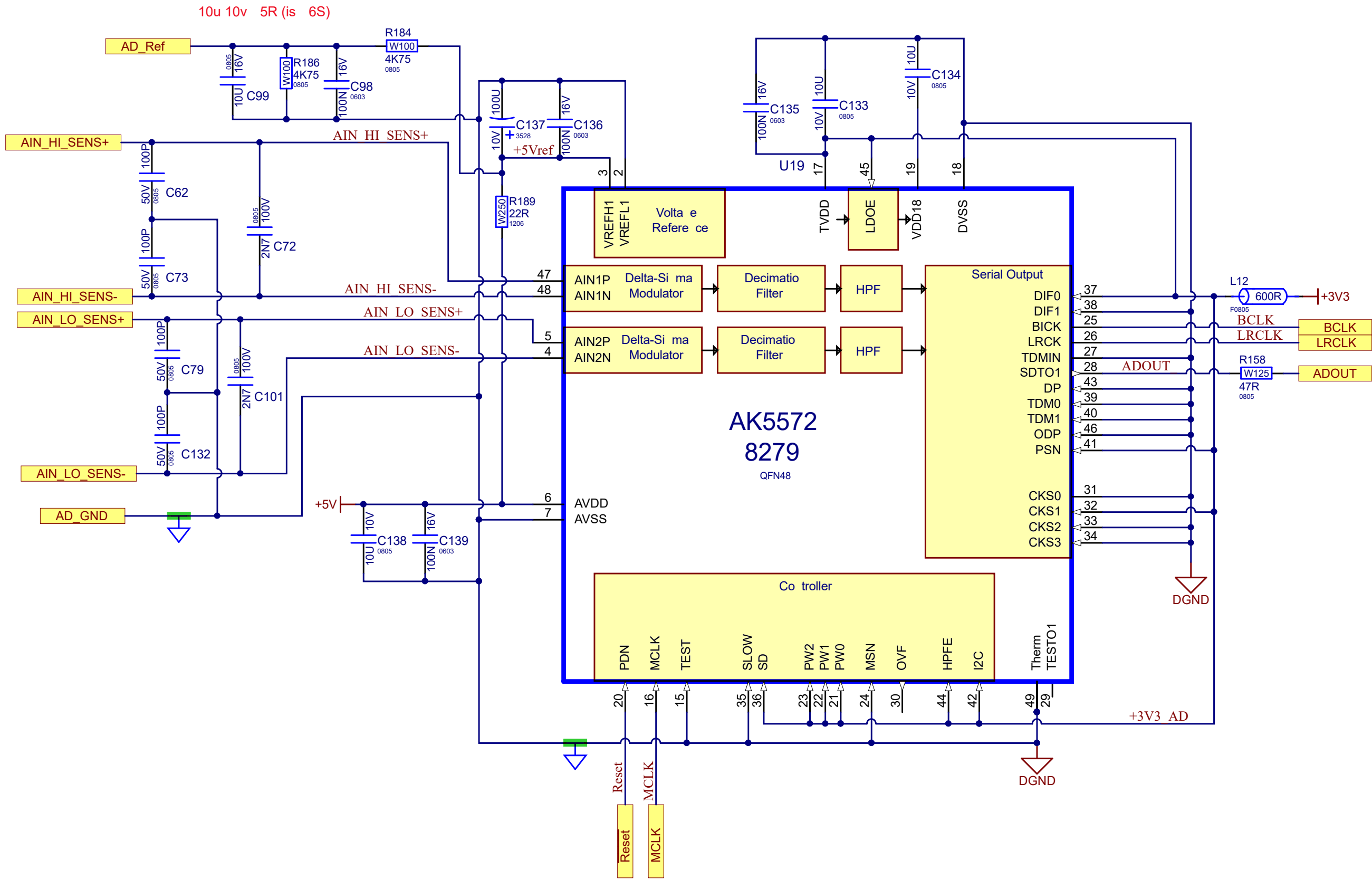
PreAmp

MAIN INPUT

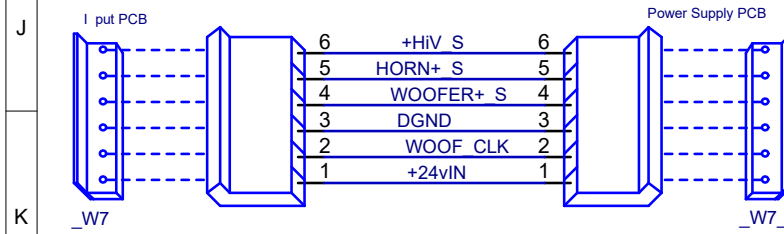
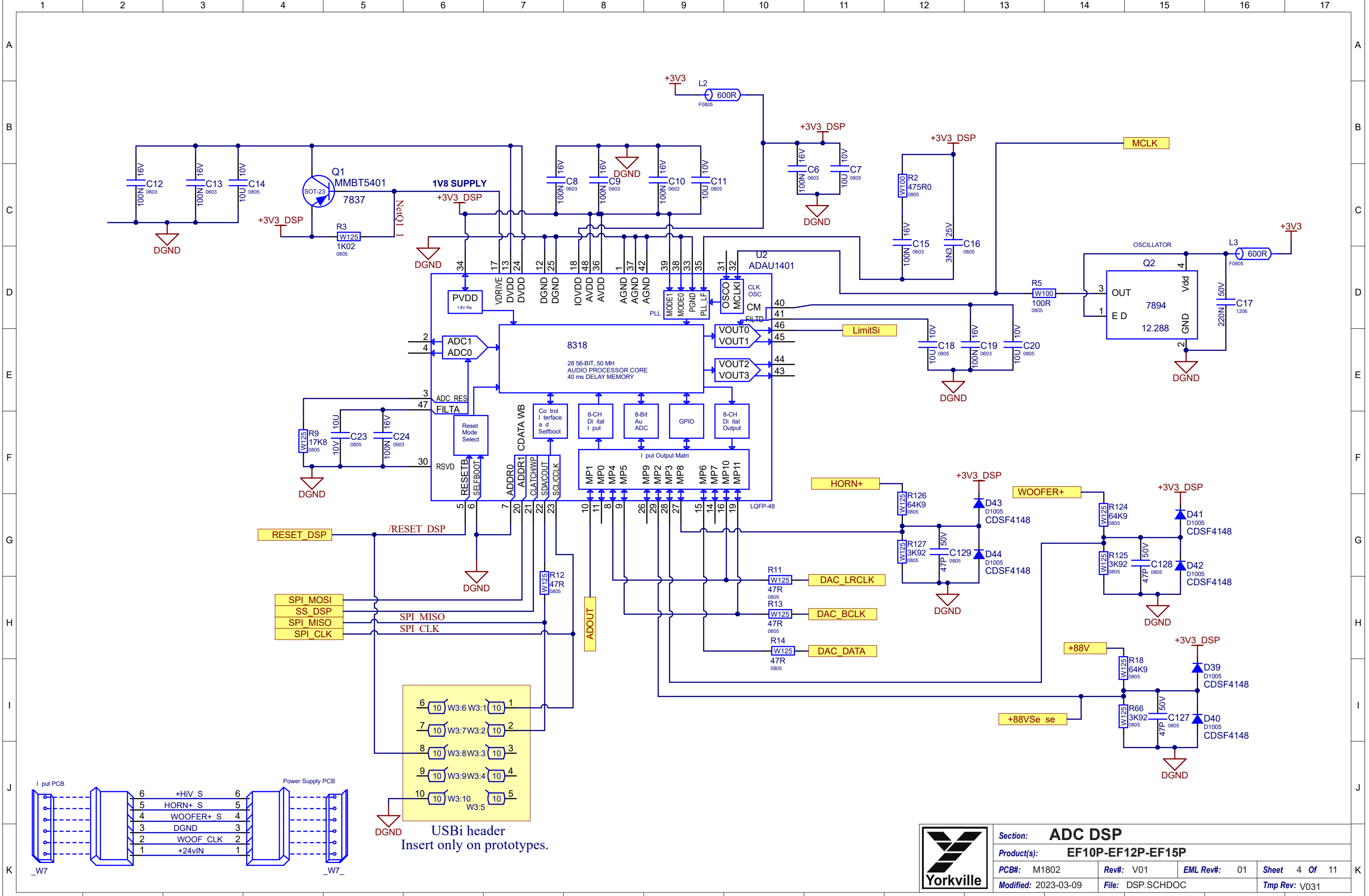
THRU

LINE IN





Section: A D Converter			
Product(s): EF10P-EF12P-EF15P			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 3 Of 11
Modified: 2023-03-09	File: ADC.SchDoc	Tmp Rev: V031	



USBi header
Insert only on prototypes.

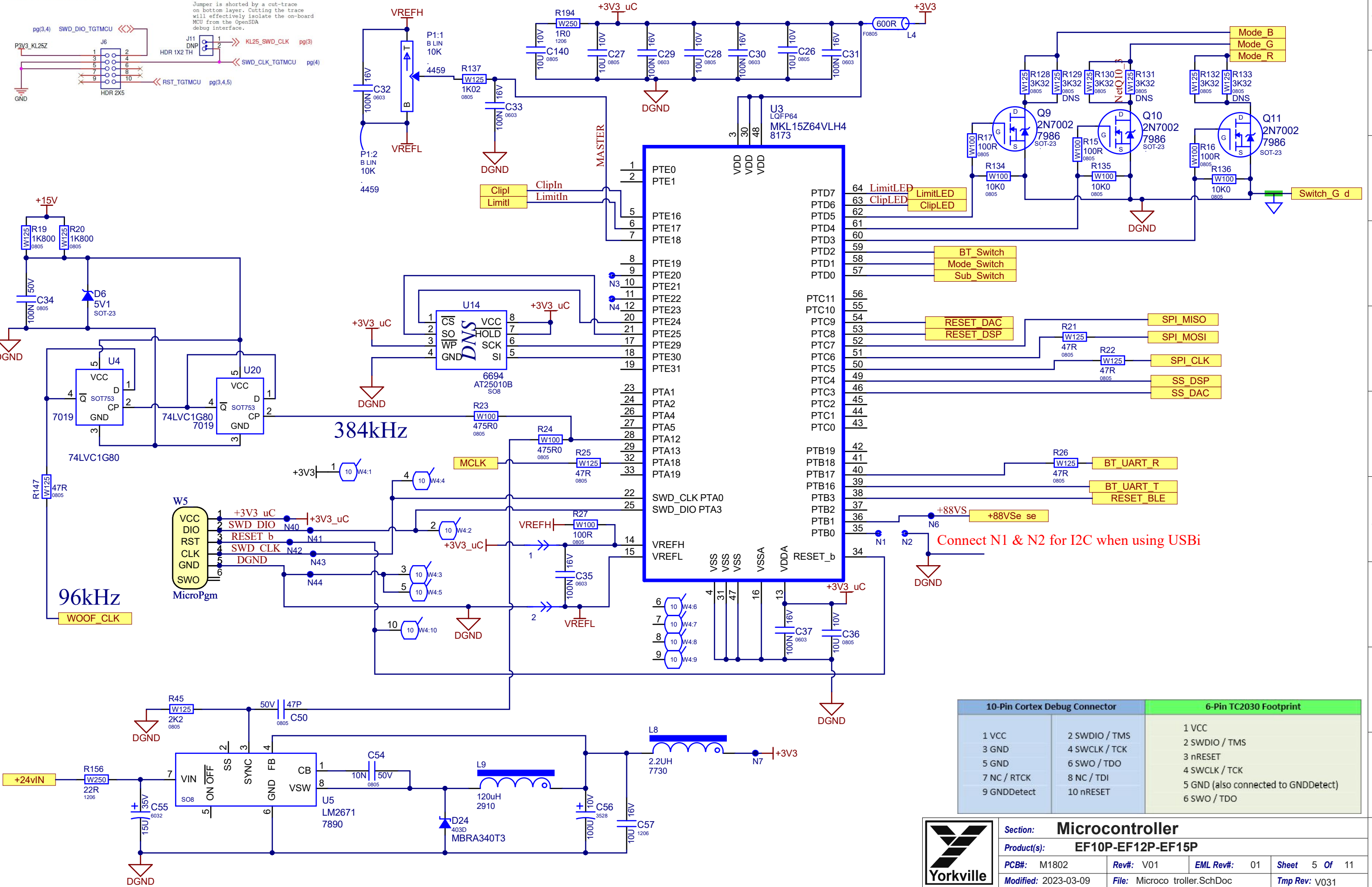


Section: ADC DSP			
Product(s): EF10P-EF12P-EF15P			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 4 Of 11
Modified: 2023-03-09	File: DSP.SCHDOC	Tmp Rev: V031	

SWD CONNECTOR

SHORTING HEADER ON BOTTOM LAYER

Jumper is shorted by a cut-trace on bottom layer. Cutting the trace will effectively isolate the on-board MCU from the OpenSDA debug interface.

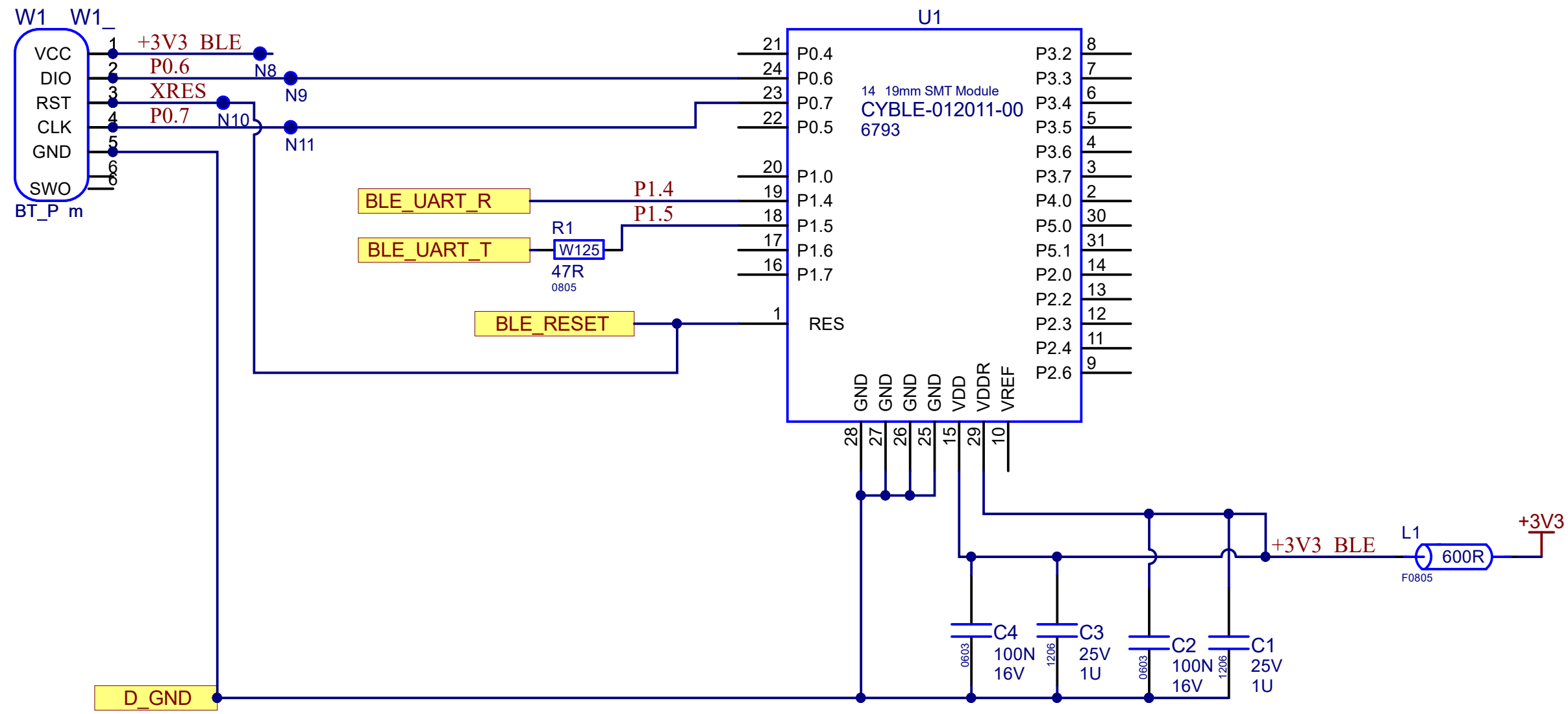


10-Pin Cortex Debug Connector		6-Pin TC2030 Footprint	
1 VCC	2 SWDIO / TMS	1 VCC	2 SWDIO / TMS
3 GND	4 SWCLK / TCK	3 nRESET	4 SWCLK / TCK
5 GND	6 SWO / TDO	4 SWCLK / TCK	5 GND (also connected to GNDDetect)
7 NC / RTCK	8 NC / TDI	5 GND (also connected to GNDDetect)	6 SWO / TDO
9 GNDDetect	10 nRESET	6 SWO / TDO	

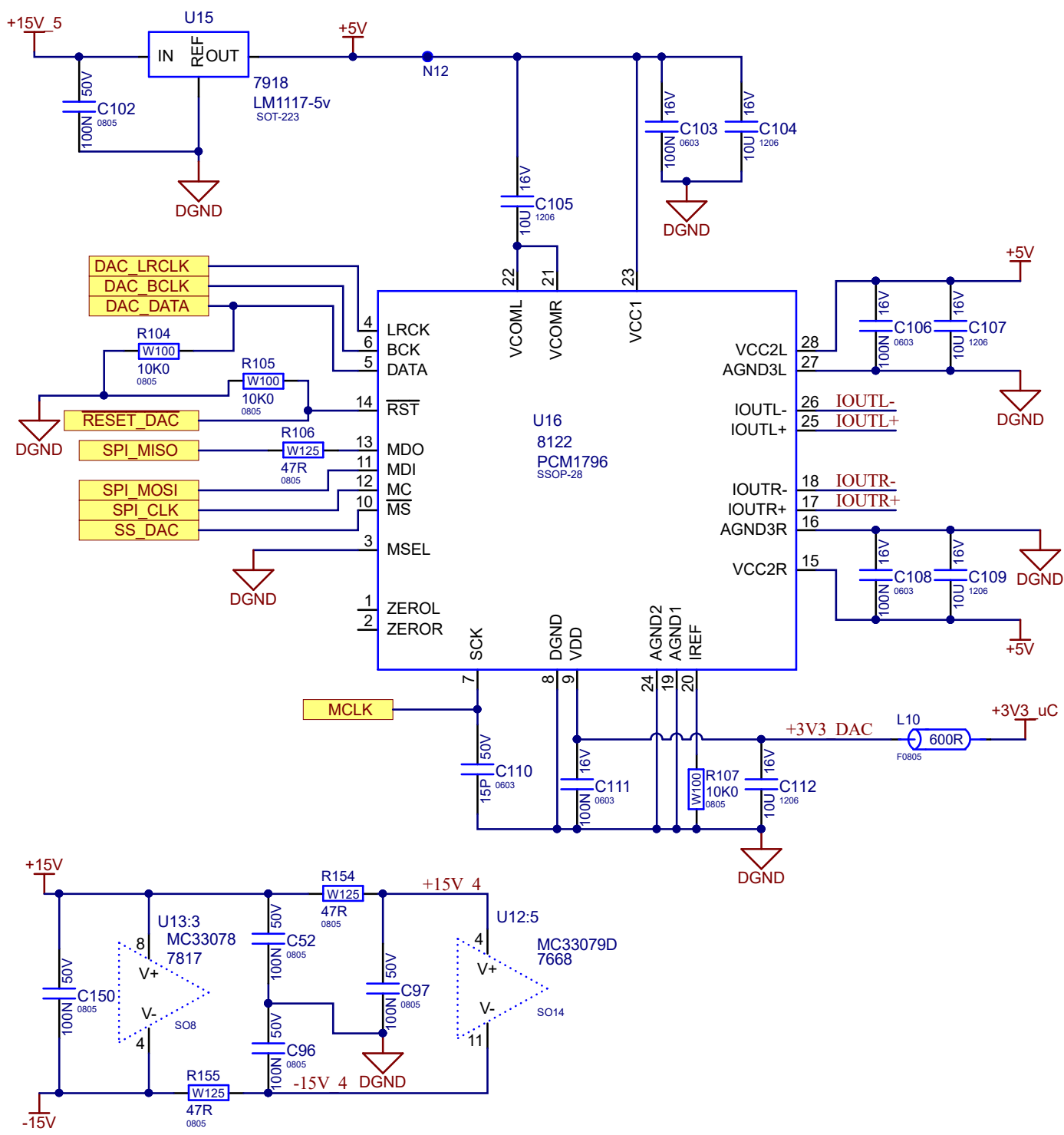
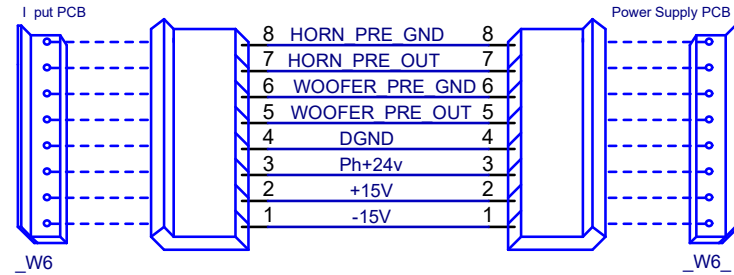


Low Energy Bluetooth

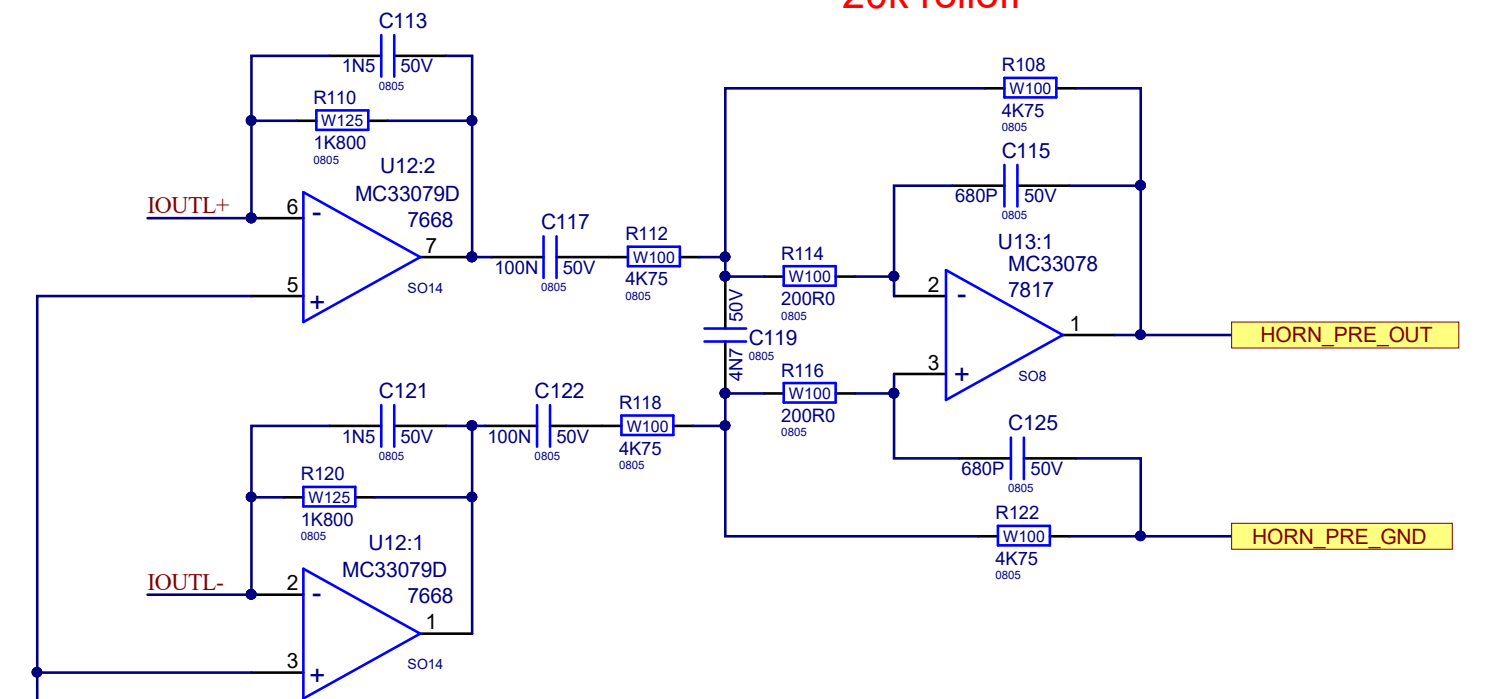
10-Pin Cortex Debug Connector		6-Pin TC2030 Footprint
1 VCC	2 SWDIO / TMS	1 VCC
3 GND	4 SWCLK / TCK	2 SWDIO / TMS
5 GND	6 SWO / TDO	3 nRESET
7 NC / RTCK	8 NC / TDI	4 SWCLK / TCK
9 GNDDetect	10 nRESET	5 GND (also connected to GNDDetect)
		6 SWO / TDO



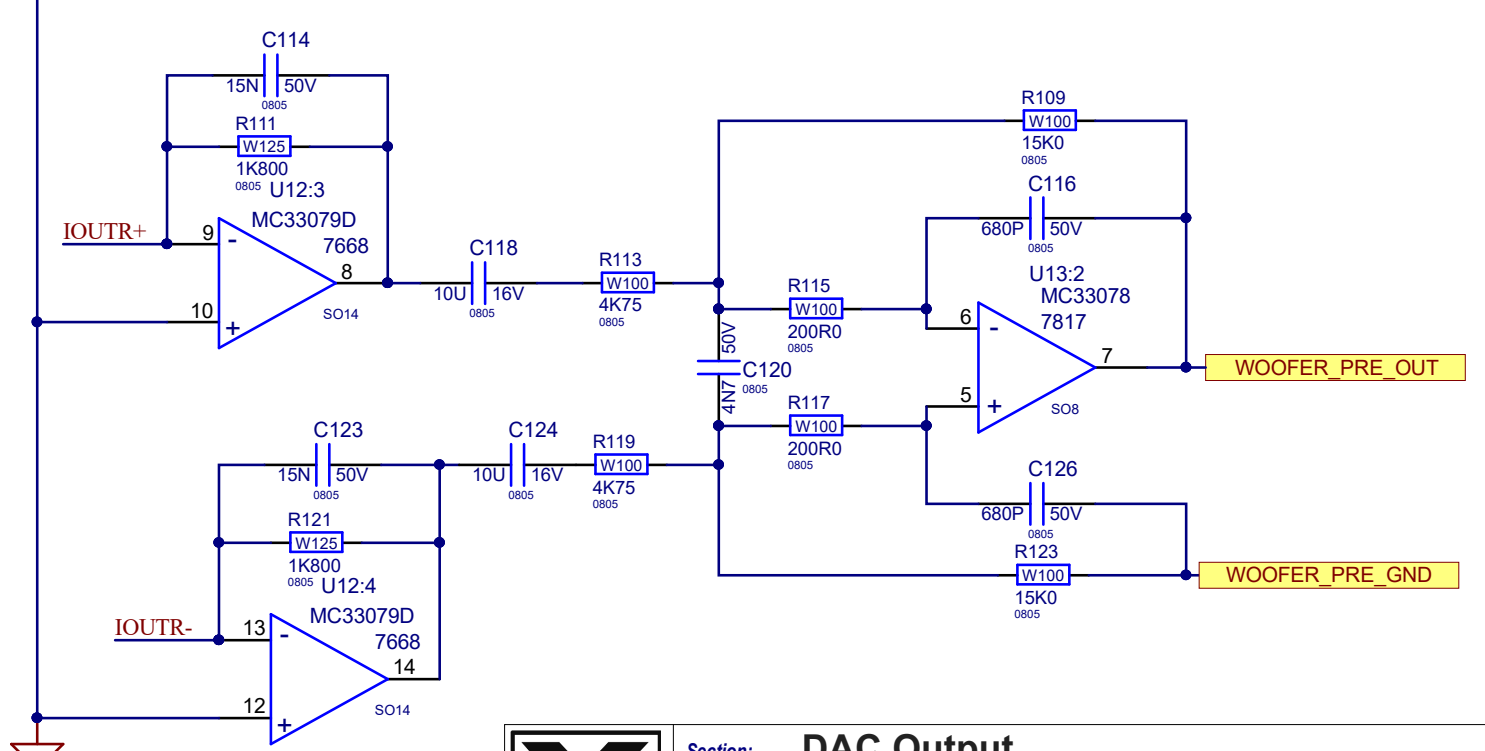
Section: Low Energy Bluetooth			
Product(s): EF10P-EF12P-EF15P			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 6 Of 11
Modified: 2023-03-09	File: BLE.SchDoc	Tmp Rev: V031	



HORN OUTPUT



WOOFER OUTPUT



Section: DAC Output			
Product(s): EF10P-EF12P-EF15P			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 7 Of 11
Modified: 2023-03-09	File: Output.SchDoc	Tmp Rev: V031	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

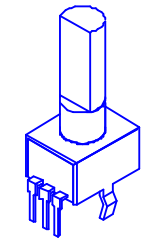
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2017-03-03	V01	.	RELEASED FOR PRODUCTION
2	2017-09-15	V01	9116	MARKED W3 CONNECTOR - YS PART 4018 AS DNS
3	2017-11-14	V01	.	CHANGE FUSE PART NUMBER FOR CE FROM 2475 TO 2473 (T1.6A)
4	2017-10-03	V02p1	9098	Change RCA to 1/8". Move mic switch to make room for Master pot center mark.
5	2018-02-24	V01P0	.	BOARD BLANK AND PROJECT RENAMED P8802. SECTIONS NAMED M1802 (INPUT),
6	.	.	.	M1803 (POWER SUPPLY) AND M1804 (AC FILTER)
7	.	.	.	Added a 0.4A fuse in series with -15v supply track followed
8	.	.	.	by a 20V 3W resistor to protect if -80v shorts to -15v.
9	2018-04-20	V01P1	.	Part additions for safety and value modifications to reduce parts count.
10	2018-09-10	.	.	Updated P8802 to M1802, M1803, and M1804
11	2018-10-12	V01	.	Released M1802V01
12	2019-02-19	.	9333	Change pots P1, P2 (10K, 4434), and P3 (10K, 4432) to YS 4459 (10K)
13	2019-10-08	.	9434	Update labels on W6 and W7 connector pinout drawings.

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2019-10-09	.	9445	Remove R129, R131, R133 in LD2 drive circuit
2	2023-03-09	.	9607	7819 10U 10V replaced with 7738 10U 16V Cheaper Better option.
3	.	.	.	C21,C57,C104,C105,C107,C109,C112.
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
REF	FUNCTION	POT#	KNOB#
P1	MASTER LEVEL	4434	8653
P2	LINE LEVEL	4432	8653
P3	MIC LEVEL	4432	8653
.	.	.	.
.	.	.	.
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"STYLE_P32"

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

	Section: Design Information And History			
	Product(s): EF10P-EF12P-EF15P			
	PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 10 Of 11
	Modified: 2023-03-09	File: History.SchDoc	Tmp Rev: V031	

M1802V01



ATTENTION
ELECTROSTATIC
SENSITIVE DEVICE

S N LABEL



© 2018

MASTER

Blue Tooth

Sub

Mode

DNS

DNS

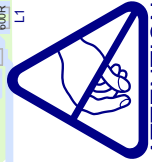
DNS

WOOFER_PRE_OUT
WOOFER_PRE_GND
Pn+24V
+15V
-15V
DGND

WOOFER+_S
HORN+_S
+HIV_S

WOOFLCK
DGND

+24VIN



ATTENTION
ELECTROSTATIC
SENSITIVE DEVICE

W6

W7

W8

W9

W10

W11

W12

W13

LINE IN

LINE IN

4218

4090

4459

4459

6543

4010

4090

4459

3696

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3522

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4140

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PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

The input section needs to be air tight. All Vias and Part Holes must be filled with solder.

PCB HARDWARE

SCREWS AND BOLTS

NUTS

STANDOFFS

MISCELLANEOUS

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



Section: Assembly Documentation			
Product(s): EF10P-EF12P-EF15P			
PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 9 Of 11
Modified: 2023-03-09	File: Assembly.SchDoc	Tmp Rev: V031	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

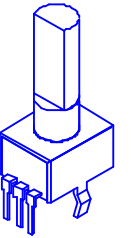
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2017-03-03	V01	.	RELEASED FOR PRODUCTION
2	2017-09-15	V01	9116	MARKED W3 CONNECTOR - YS PART 4018 AS DNS
3	2017-11-14	V01	.	CHANGE FUSE PART NUMBER FOR CE FROM 2475 TO 2473 (T1.6A)
4	2017-10-03	V02p1	9098	Change RCA to 1/8". Move mic switch to make room for Master pot center mark.
5	2018-02-24	V01P0	.	BOARD BLANK AND PROJECT RENAMED P8802. SECTIONS NAMED M1802 (INPUT),
6	.	.	.	M1803 (POWER SUPPLY) AND M1804 (AC FILTER)
7	.	.	.	Added a 0.4A fuse in series with -15v supply track followed
8	.	.	.	by a 20V 3W resistor to protect if -80v shorts to -15v.
9	2018-04-20	V01P1	.	Part additions for safety and value modifications to reduce parts count.
10	2018-09-10	.	.	Updated P8802 to M1802, M1803, and M1804
11	2018-10-12	V01	.	Released M1802V01
12	2019-02-19	.	9333	Change pots P1, P2 (10K, 4434), and P3 (10K, 4432) to YS 4459 (10K)
13	2019-10-08	.	9434	Update labels on W6 and W7 connector pinout drawings.

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2019-10-09	.	9445	Remove R129, R131, R133 in LD2 drive circuit
2	2023-03-09	.	9607	7819 10U 10V replaced with 7738 10U 16V Cheaper Better option.
3	.	.	.	C21,C57,C104,C105,C107,C109,C112.
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
REF	FUNCTION	POT#	KNOB#
P1	MASTER LEVEL	4434	8653
P2	LINE LEVEL	4432	8653
P3	MIC LEVEL	4432	8653
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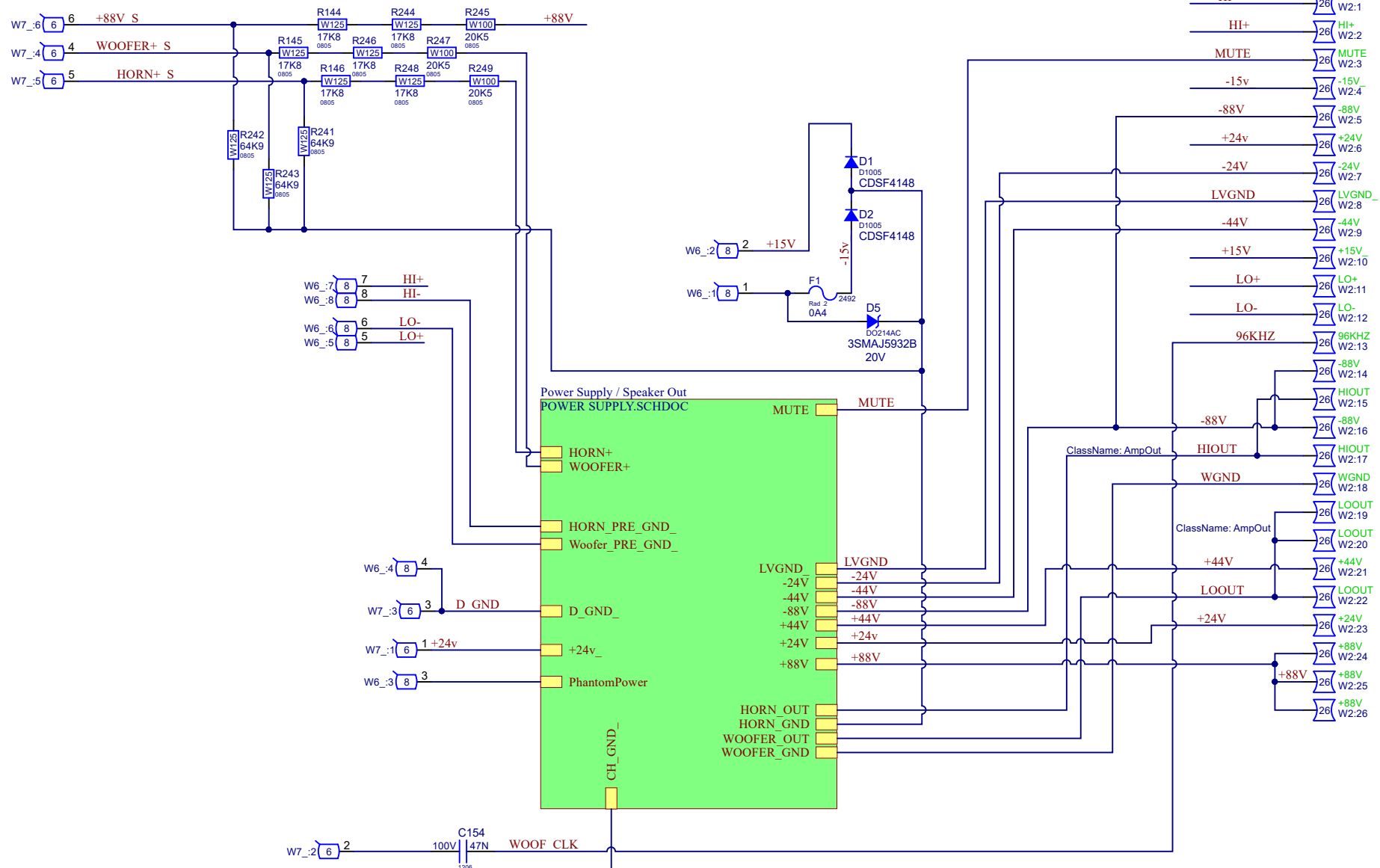


"STYLE_P32"

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

	Section: Design Information And History			
	Product(s): EF10P-EF12P-EF15P			
	PCB#: M1802	Rev#: V01	EML Rev#: 01	Sheet 10 Of 11
	Modified: 2023-03-09	File: History.SchDoc	Tmp Rev: V031	



W7_2:2 100V 47N 1206 WOOOF CLK

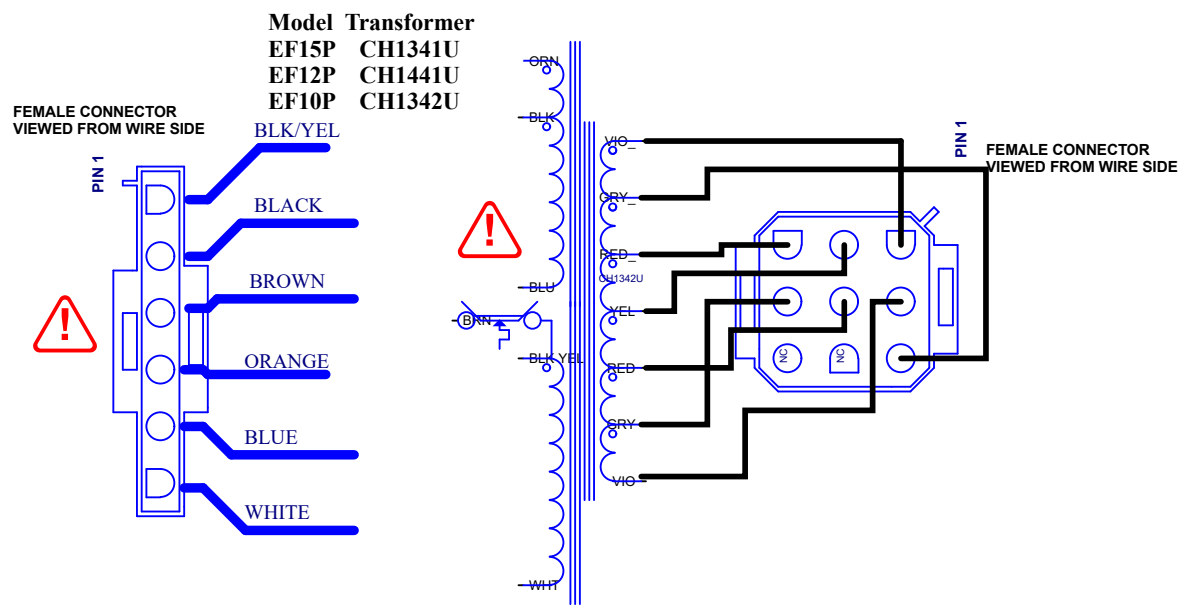
CON_HOLE_128
HC2
CHGND1
Connected to CHGND2 through the chassis.
Use a wire to connect these two points when working on the board.

- ECO.SchDoc
- ECAD INCIDENTAL
- Assembly.SchDoc
- ASSEMBLY NOTES
- History.SchDoc
- DESIGN HISTORY

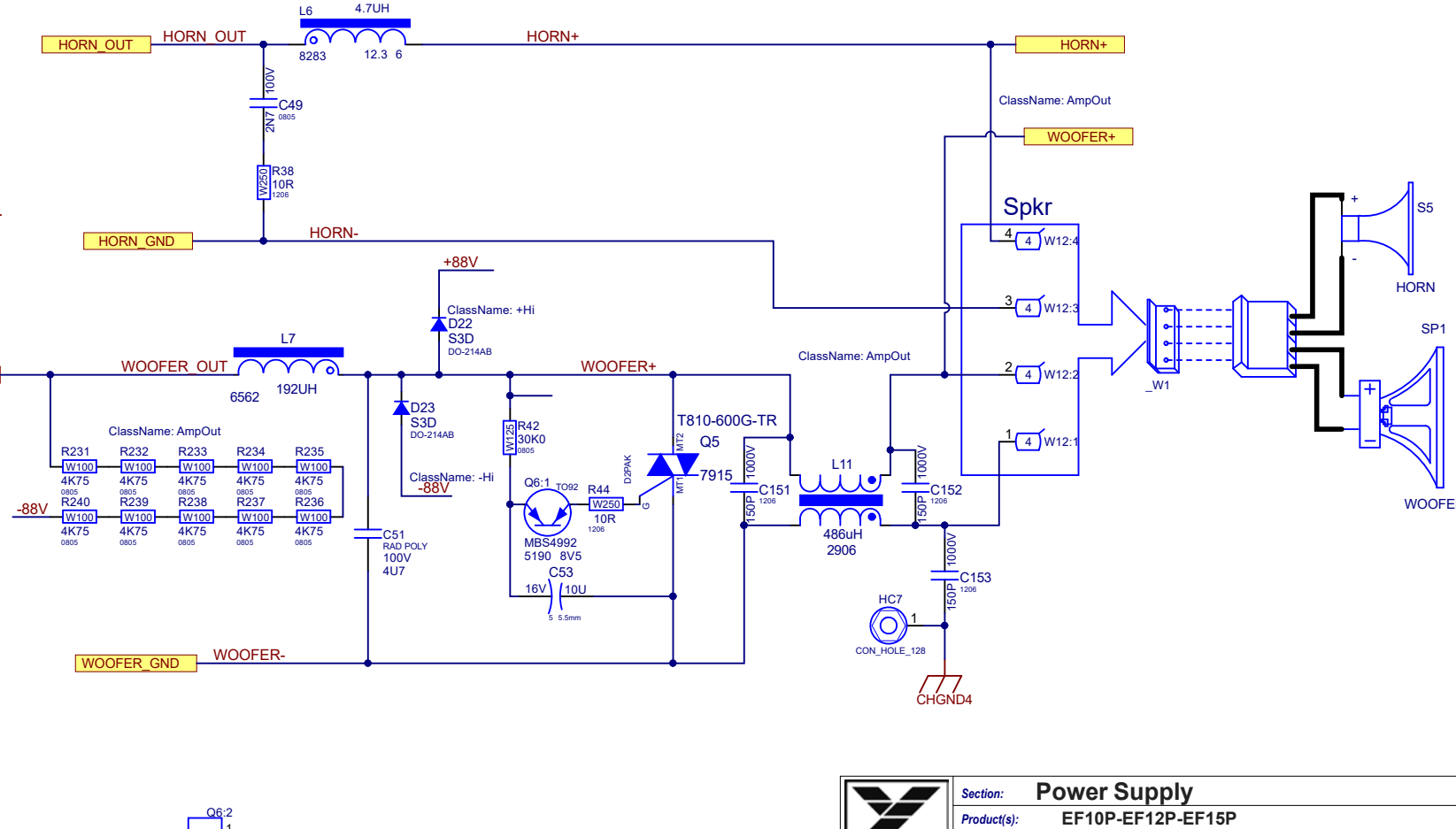
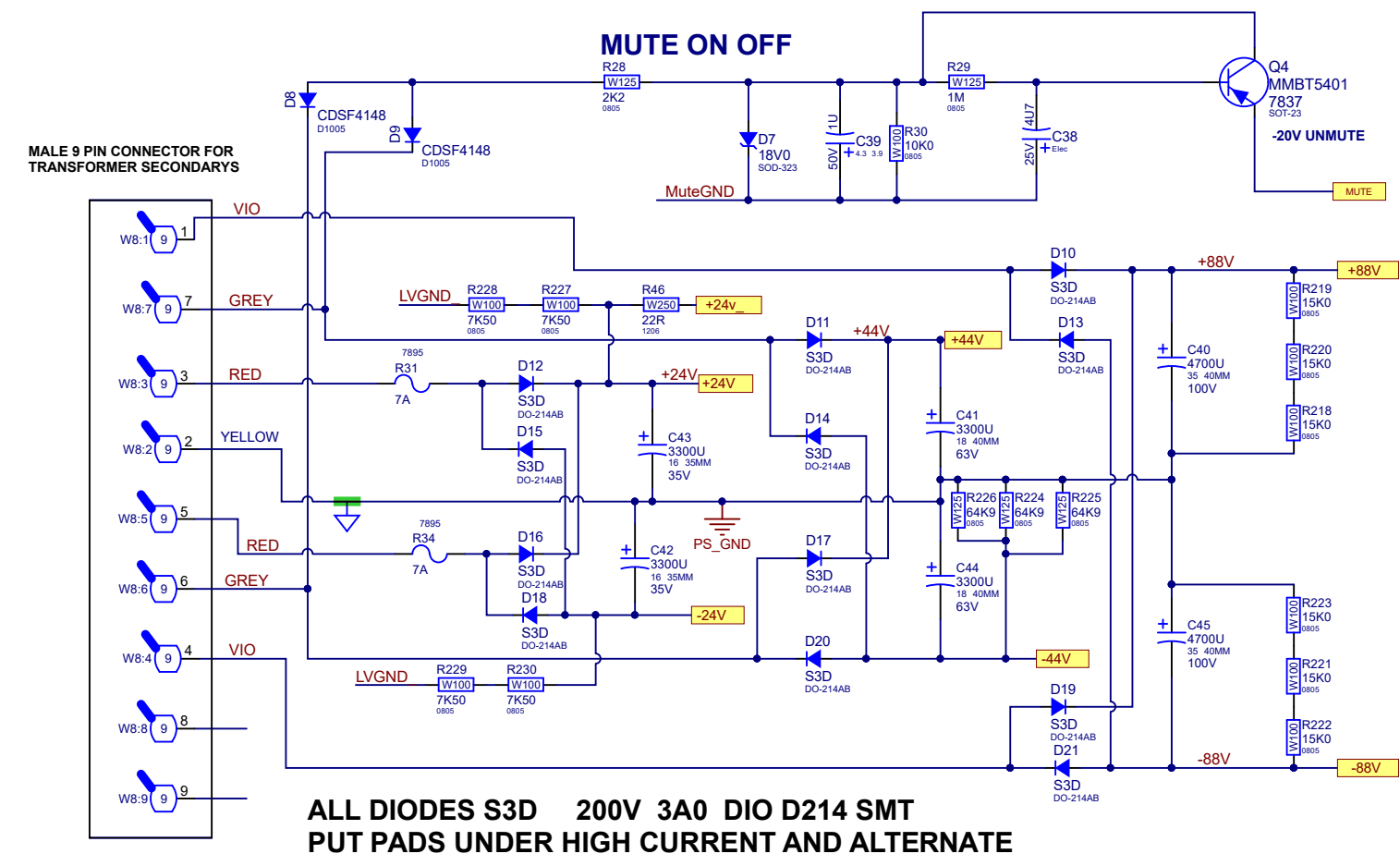
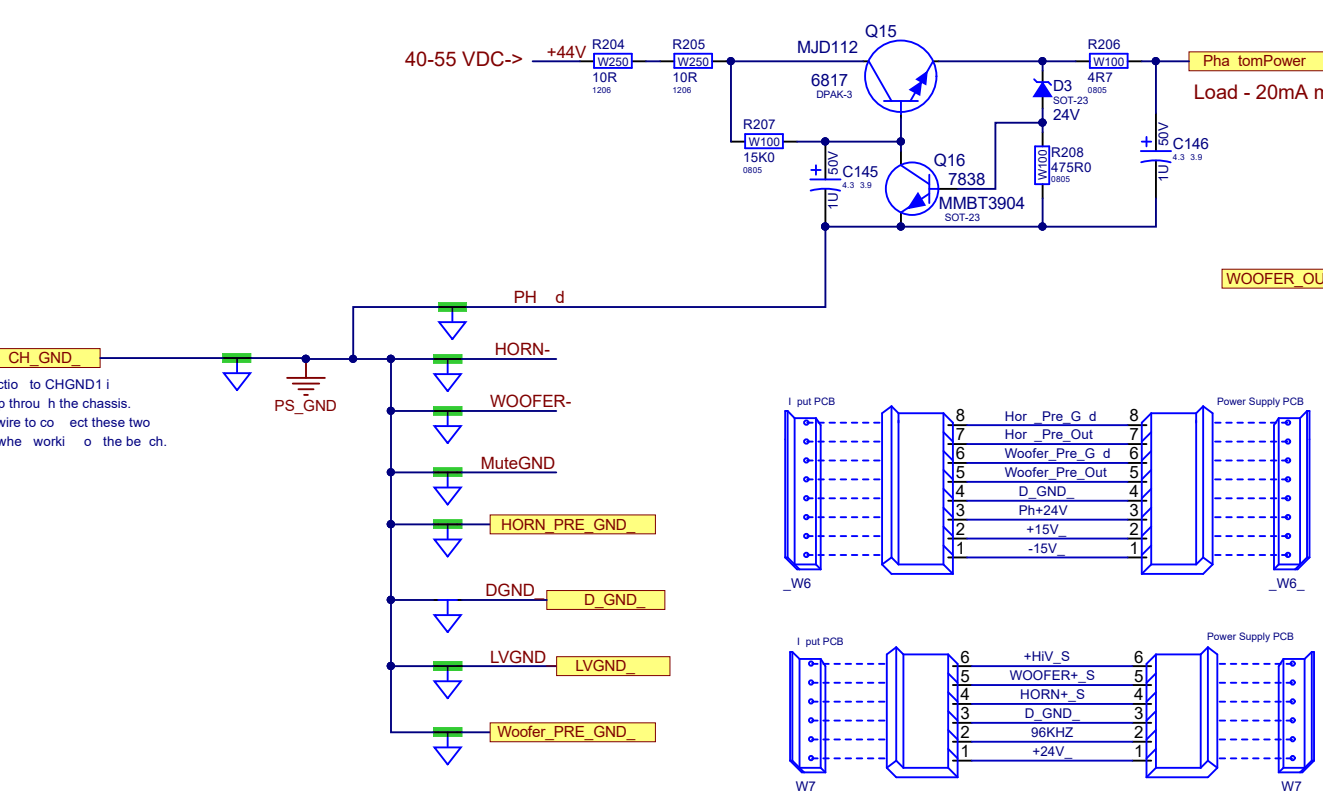


S L
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C A A L W

Product(s): EF10P-EF12P-EF15P	
Description: PS and Input	
PCB#: M1803	Rev#: V01.
Modified: 2021-11-17	File: Top Sheet.SchDoc
EML Rev#: 01	Sheet 1 Of 11
Tmp Rev: V031	



CRITICAL SAFETY COMPONENTS
 THIS IS A MOUNTING LOCATION
 SAFETY CRITICAL COMPONENTS



DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2017 03 03	V01	.	RELEASED FOR PRODUCTION
2	2017 09 15	V01	9116	MARKED W3 CONNECTOR - YS PART 4018 AS DNS
3	2017 11 14	V01	.	CHANGE FUSE PART NUMBER FOR CE FROM 2475 TO 2473 (T1.6A)
4	2018-10-12	V01	.	Released M1803V01
5	.	.	9390	Schematic error fi ed
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
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PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

SN LABEL



Spkr
WOOF-
WOOF+
HORN-
HORN+

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2328

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5860

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6562
192UH

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5190

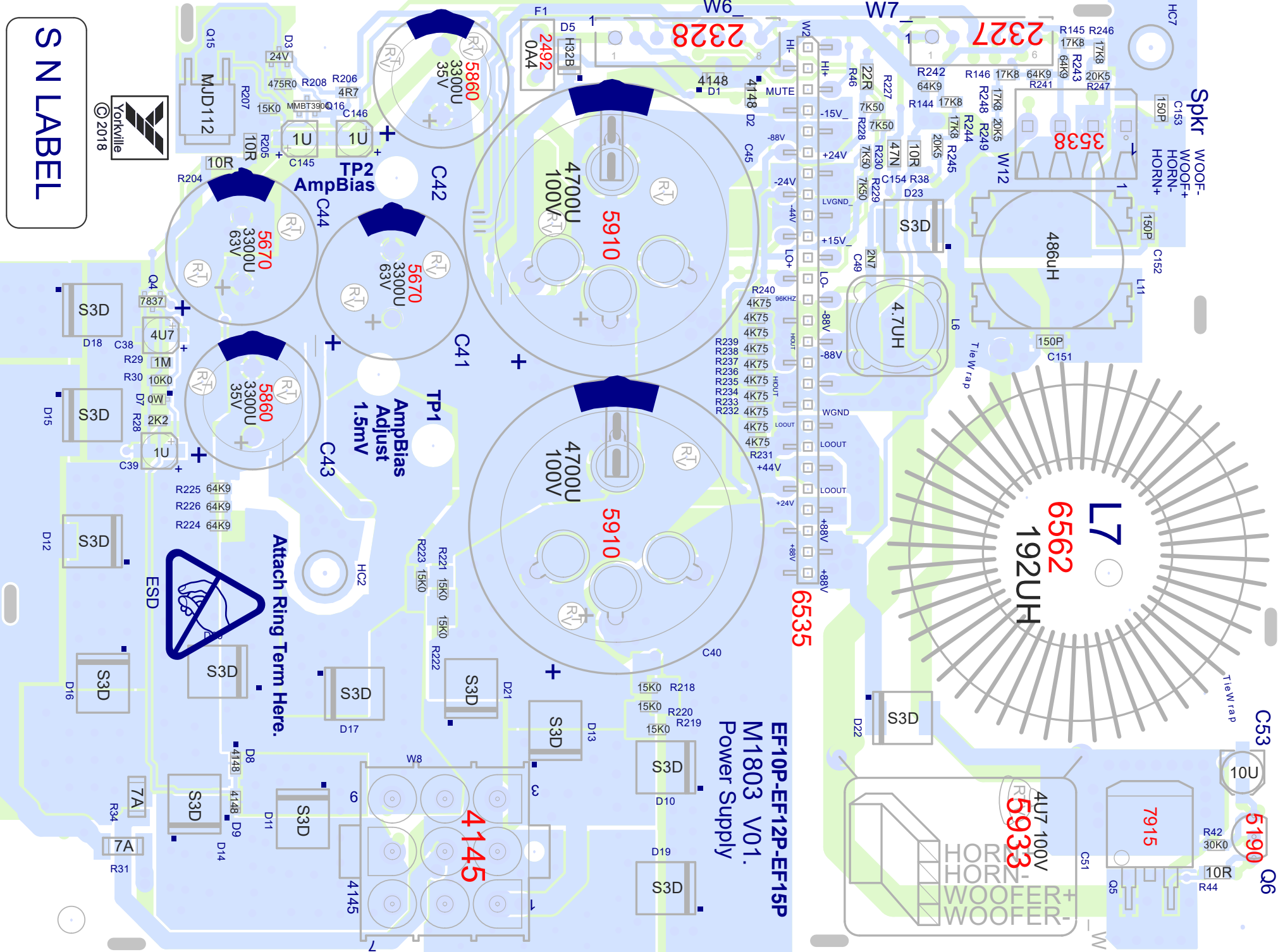
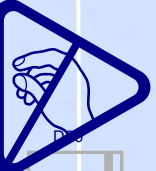
5933

7915

4145

EF10P-EF12P-EF15P
M1803 V01.
Power Supply

Attach Ring Term Here.



PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. PCBSA: ADD RTV BETWEEN POWER SUPPLY CAPS AS SHOWN HERE.



PCB HARDWARE

SCREWS AND BOLTS

NUTS

STANDOFFS

MISCELLANEOUS

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



Section: **Assembly Documentation**

Product(s): **EF10P-EF12P-EF15P**

PCB#: M1803

Rev#: V01.

EML Rev#: 01

Sheet 9 Of 11

Modified: 2021-11-17

File: Assembly.SchDoc

Temp Rev: V031

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	2017 03 03	V01	.	RELEASED FOR PRODUCTION
2	2017 09 15	V01	9116	MARKED W3 CONNECTOR - YS PART 4018 AS DNS
3	2017 11 14	V01	.	CHANGE FUSE PART NUMBER FOR CE FROM 2475 TO 2473 (T1.6A)
4	2018-10-12	V01	.	Released M1803V01
5	.	.	9390	Schematic error fi ed
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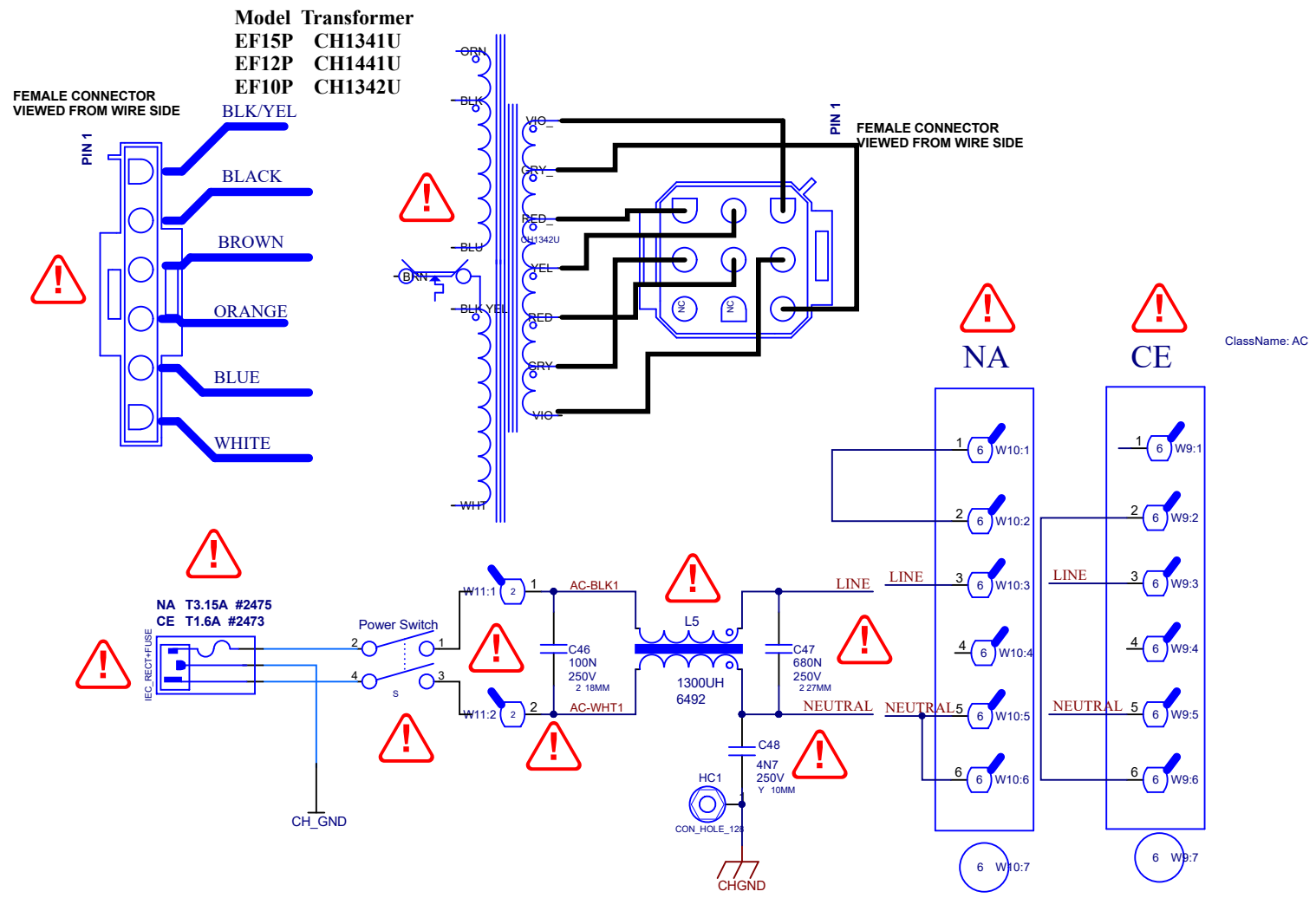
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
REF	FUNCTION	POT#	KNOB#
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PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



**CRITICAL SAFET COM ONENTS
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 SAFET CRITICAL COM ONENTS**

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY M1804V01

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	SEP-02-2018			M1804 was part of P8802. P8802 is now de-published to M1802, M1803, M1804
2	OCT-12-2018	V01		V01 RELEASED FOR PRODUCTION
3	MAR-12-2019	V01	9277	CHANGED W9 AND W10 FROM 4147 TO 4243
4	Sept-17-2019	.	.	and changed W11 from 4162 to 4244.
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
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PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

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PLASTICPIN

ClassName: PLASTICPIN

RTV HOLES

ClassName: RTV_HOLES

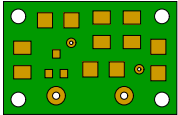
BREAK

ClassName: BREAKHOLES

CHASSISSCREW

ClassName: CHASSISSCREW

DOCUMENTATION



Blank PCB

PCB1



Section:

Product(s): EF10P - EF12P - EF15P

PCB#: M1804

Rev#: V01

EML Rev#: 01

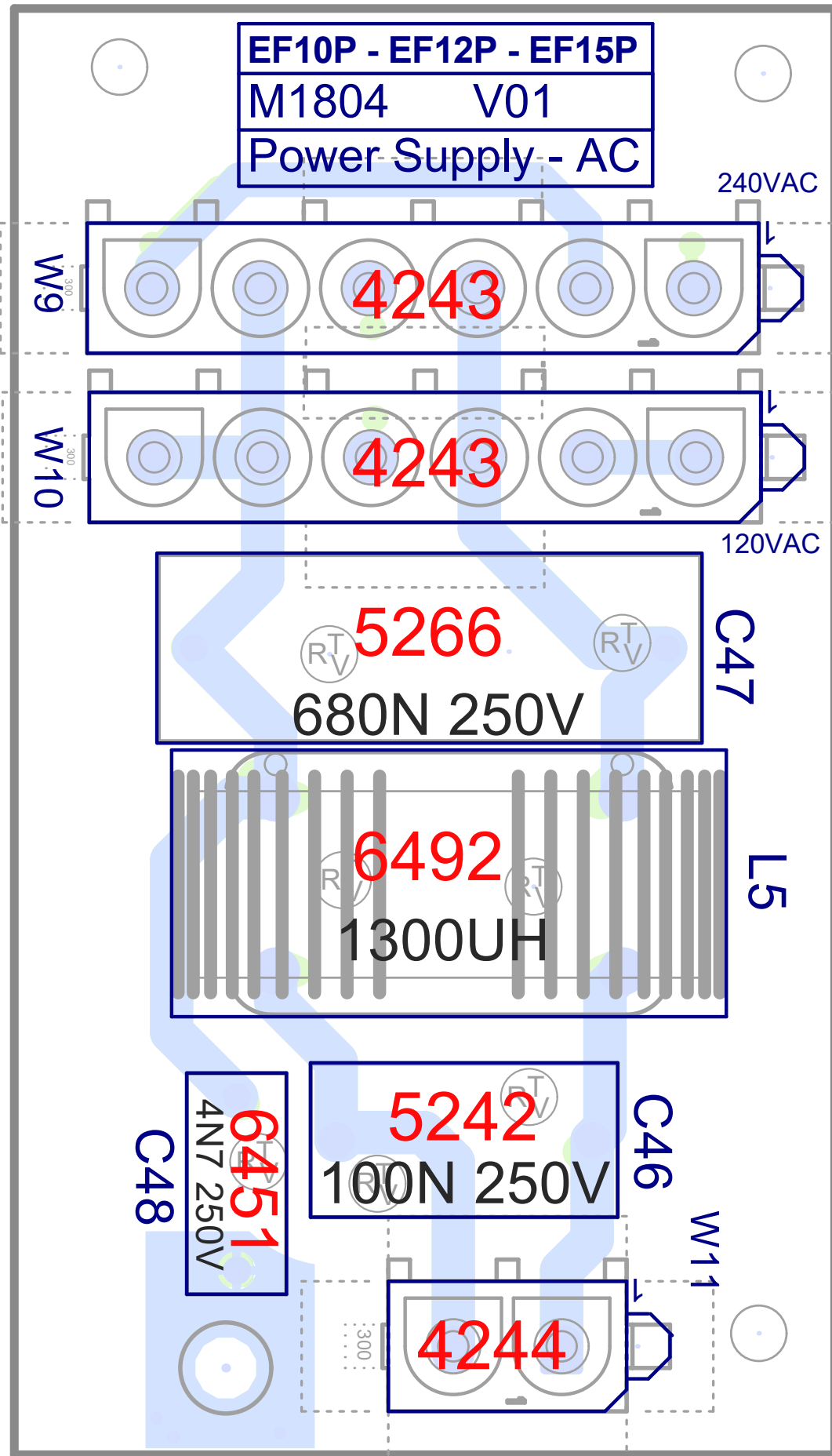
Sheet 11 *Of* 11

Modified: 2019-09-17

File: ECO.SCHDOC

Tmp Rev: V031

M1804 V01



DESIGN HISTORY AND INFORMATION

CHANGE HISTORY M1804V01

#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1	SEP-02-2018			M1804 was part of P8802. P8802 is now de-published to M1802, M1803, M1804
2	OCT-12-2018	V01		V01 RELEASED FOR PRODUCTION
3	MAR-12-2019	V01	9277	CHANGED W9 AND W10 FROM 4147 TO 4243
4	Sept-17-2019	.	.	and changed W11 from 4162 to 4244.
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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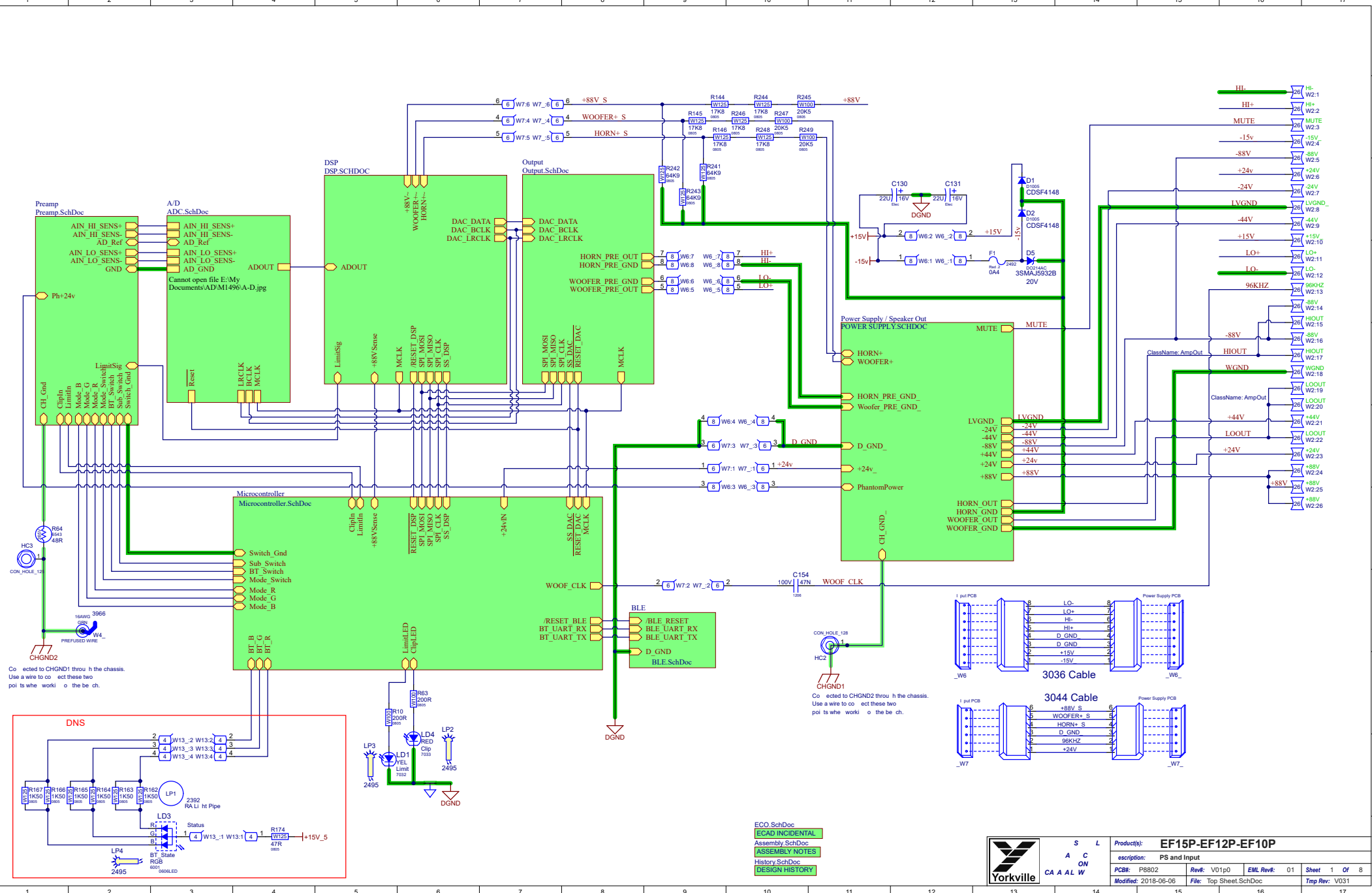
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
REF	FUNCTION	POT#	KNOB#
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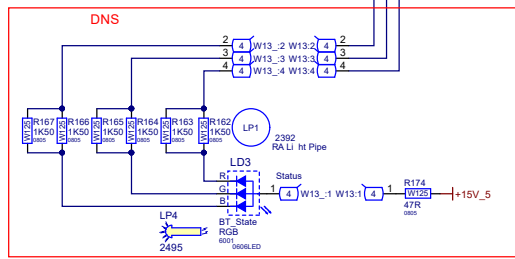
PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.



Co-ected to CHGN21 thru h the chassis.
Use a wire to co-ect these two
poi ts whe worki o the be ch.

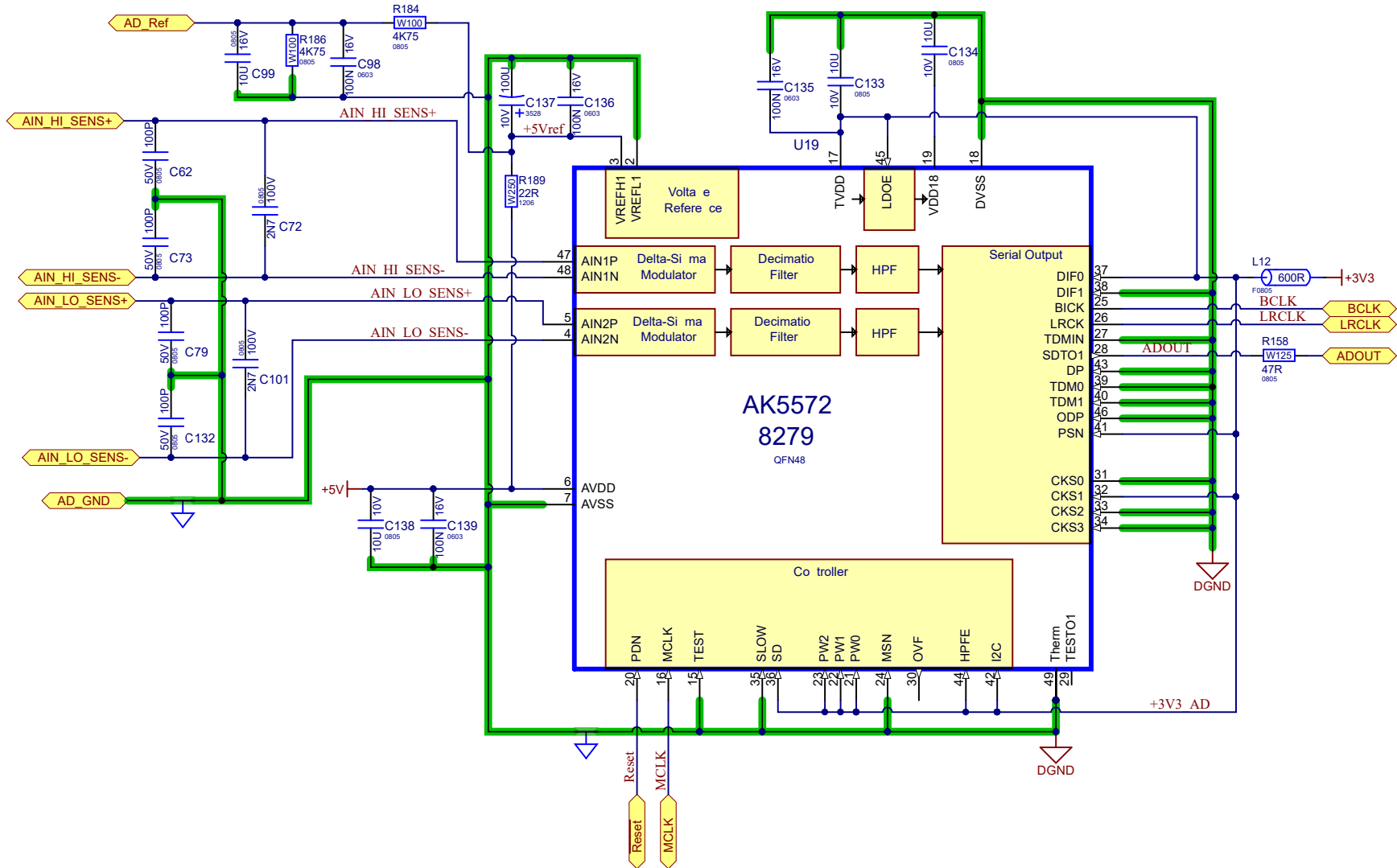
Co-ected to CHGN21 thru h the chassis.
Use a wire to co-ect these two
poi ts whe worki o the be ch.



- ECO SchDoc
- ECAD INCIDENTAL
- Assembly SchDoc
- ASSEMBLY NOTES
- History SchDoc
- DESIGN HISTORY



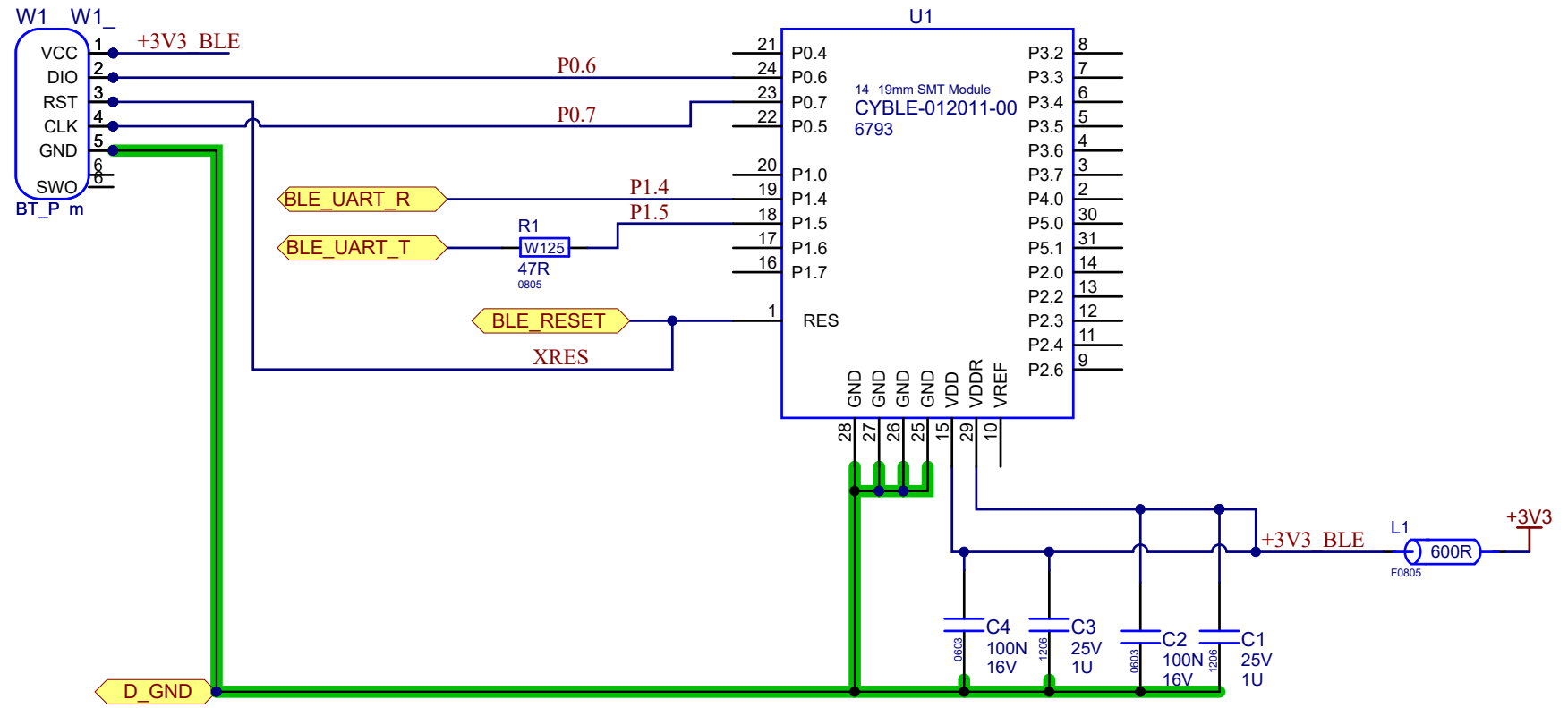
S L		Product(s): EF15P-EF12P-EF10P	
A C O N		escription: PS and Input	
CA A A L W	PCB: P802	Rev: V01p0	EML Rev: 01
	Modified: 2018-06-06	File: Top Sheet.SchDoc	Sheet 1 Of 8
			Tmp Rev: V031



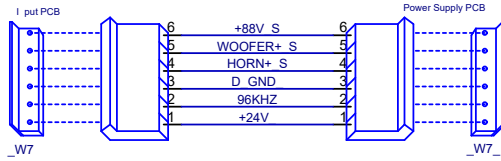
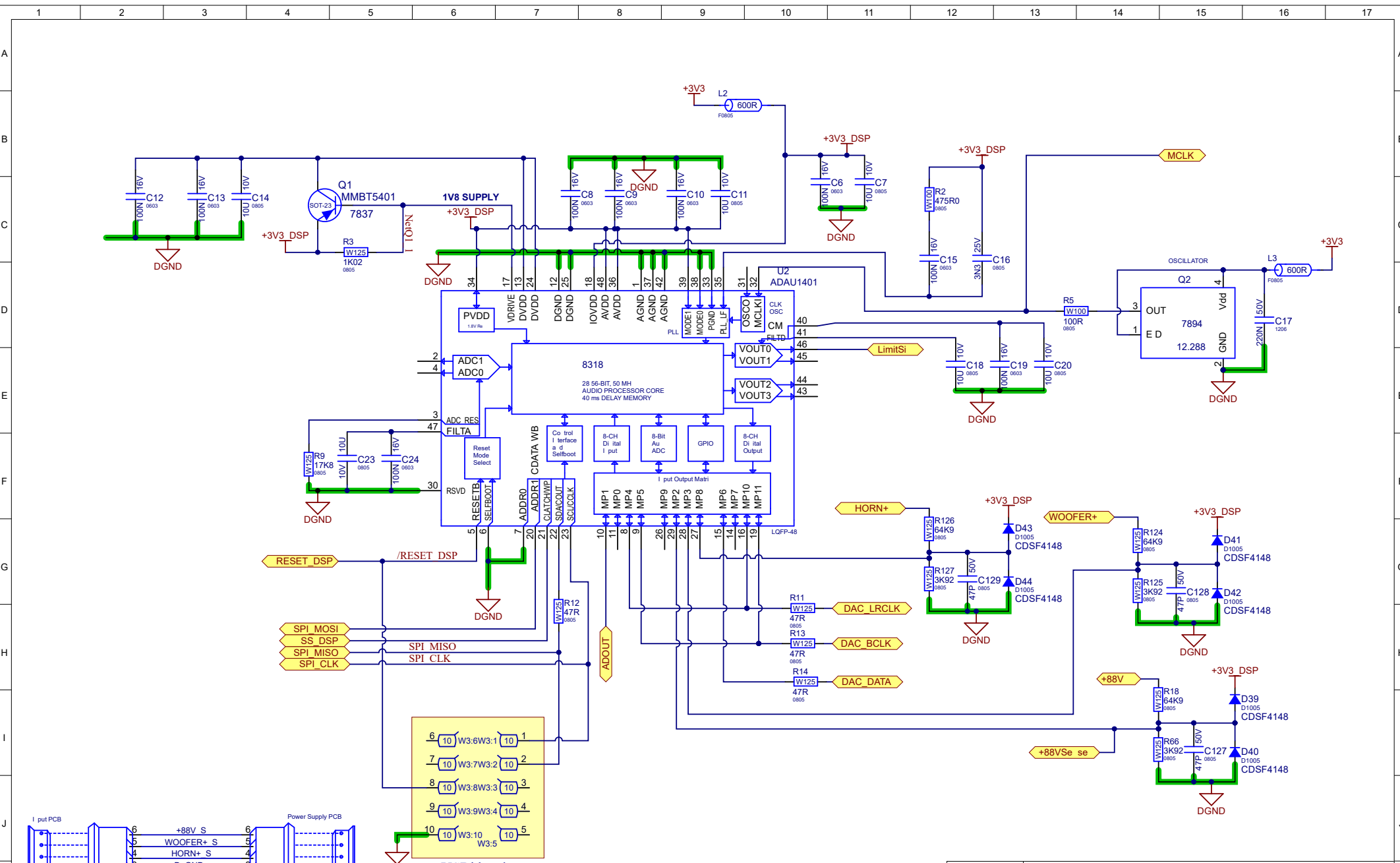
Section: A D Converter			
Product(s): EF15P-EF12P-EF10P			
PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 2 Of 8
Modified: 2018-06-06	File: ADC.SchDoc	Tmp Rev: V031	

Low Energy Bluetooth

10-Pin Cortex Debug Connector		6-Pin TC2030 Footprint	
1 VCC	2 SWDIO / TMS	1 VCC	
3 GND	4 SWCLK / TCK	2 SWDIO / TMS	
5 GND	6 SWO / TDO	3 nRESET	
7 NC / RTCK	8 NC / TDI	4 SWCLK / TCK	
9 GNDDetect	10 nRESET	5 GND (also connected to GNDDetect)	
		6 SWO / TDO	



Section: Low Energy Bluetooth			
Product(s): EF15P-EF12P-EF10P			
PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 3 Of 8
Modified: 2018-06-06	File: BLE.SchDoc	Tmp Rev: V031	



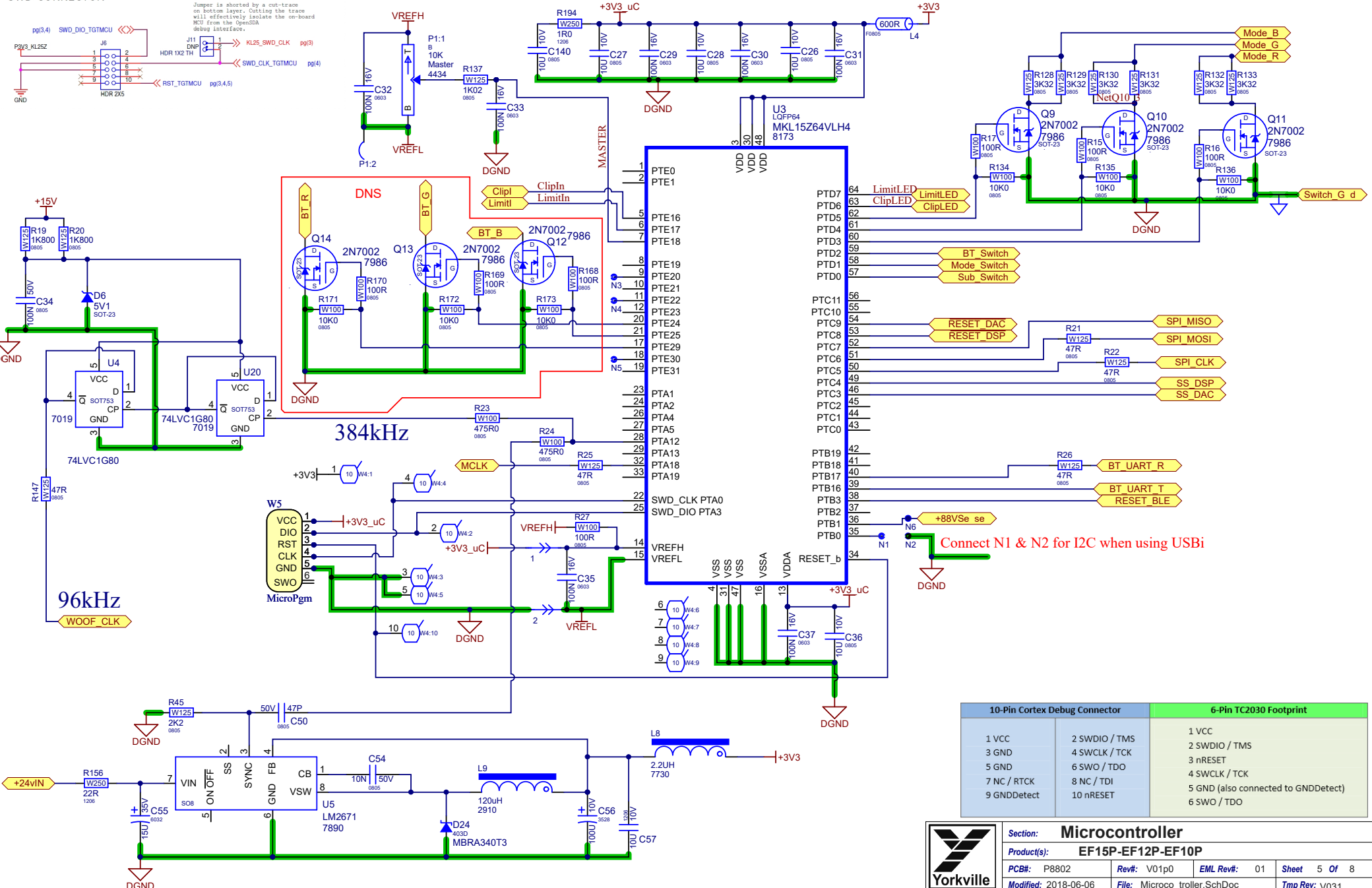
USBi header
Insert only on prototypes.



Section: ADC DSP	
Product(s): EF15P-EF12P-EF10P	
PCB#: P8802	Rev#: V01p0
Modified: 2018-06-06	EML Rev#: 01
File: DSP.SCHDOC	Sheet 4 Of 8
	Tmp Rev: V031

SWD CONNECTOR

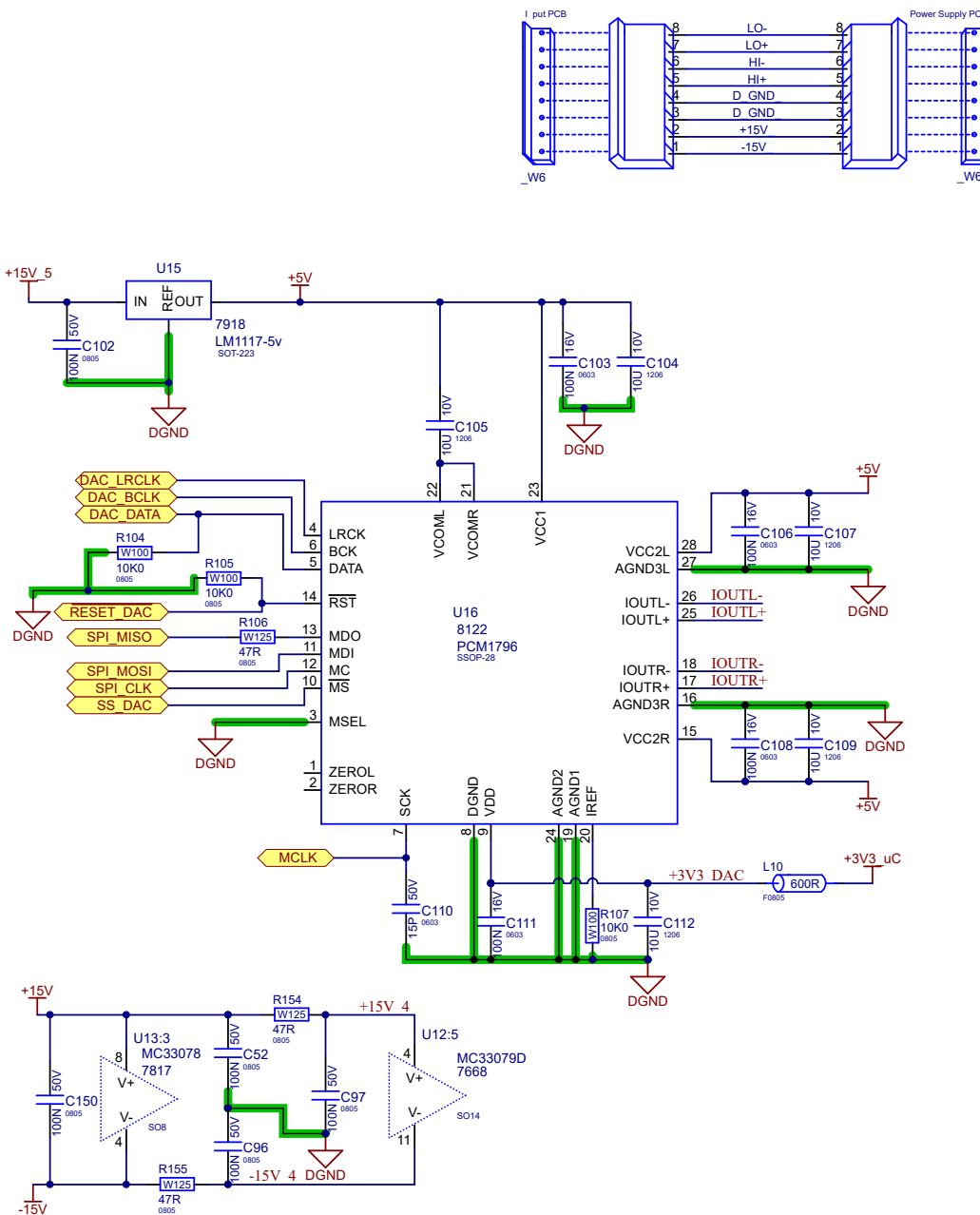
SHORTING HEADER ON BOTTOM LAYER
 Jumper is shorted by a cut-trace on bottom layer. Cutting the trace will effectively isolate the on-board MCU from the OpenSDA debug interface.



10-Pin Cortex Debug Connector		6-Pin TC2030 Footprint
1 VCC	2 SWDIO / TMS	1 VCC
3 GND	4 SWCLK / TCK	2 SWDIO / TMS
5 GND	6 SWO / TDO	3 nRESET
7 NC / RTCK	8 NC / TDI	4 SWCLK / TCK
9 GNDDetect	10 nRESET	5 GND (also connected to GNDDetect)
		6 SWO / TDO

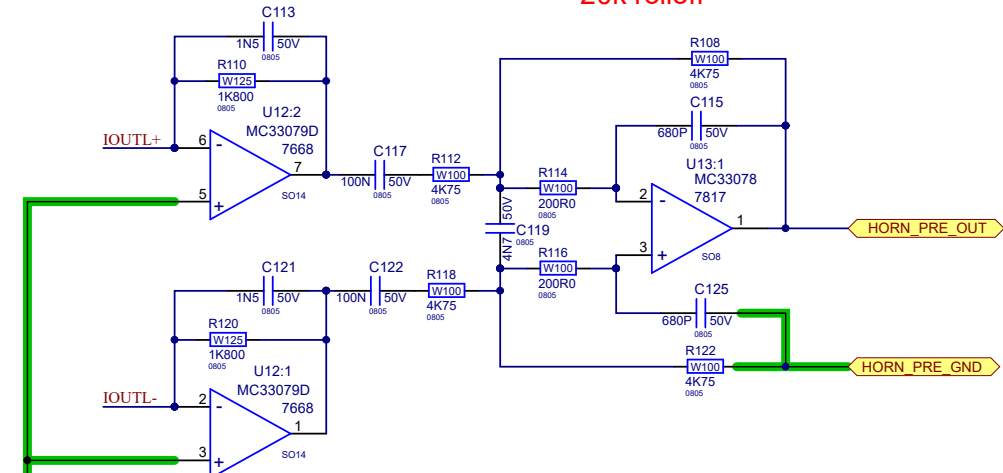


Section: Microcontroller			
Product(s): EF15P-EF12P-EF10P			
PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 5 Of 8
Modified: 2018-06-06	File: Microcontroller.SchDoc	Tmp Rev: V031	

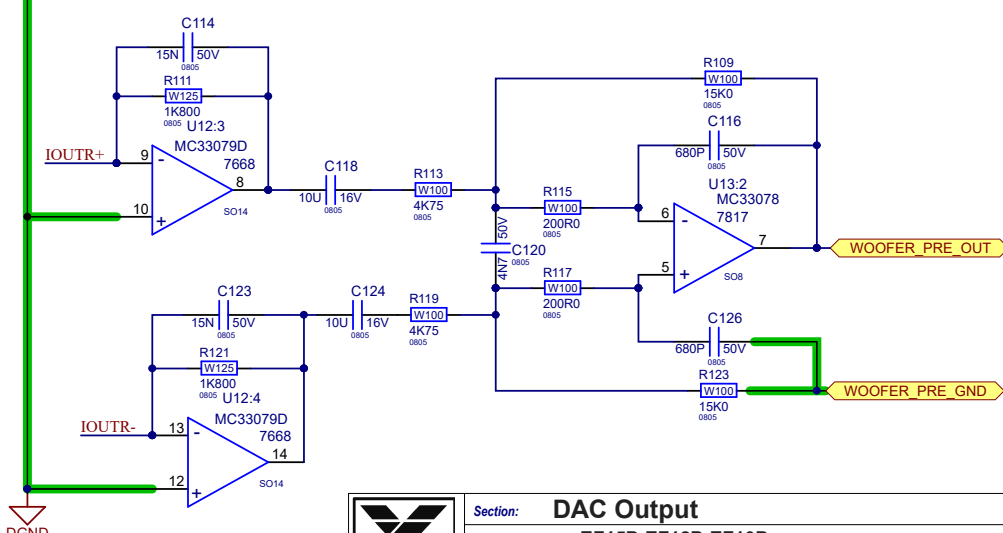


HORN OUTPUT

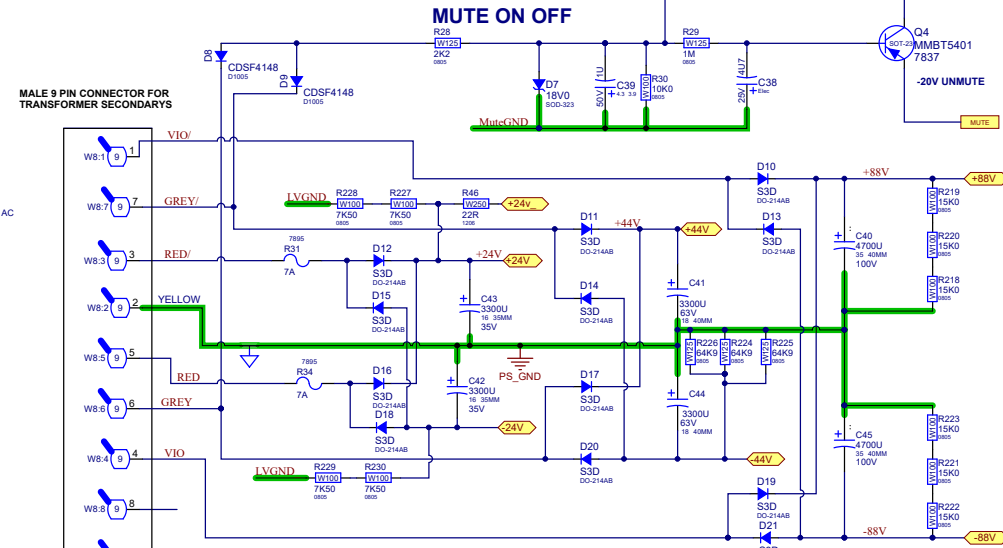
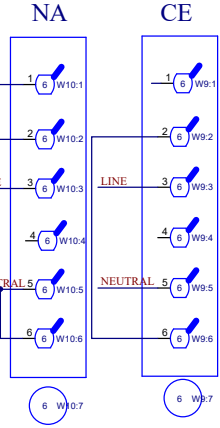
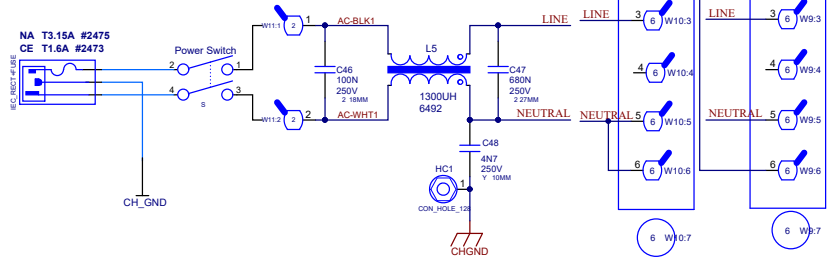
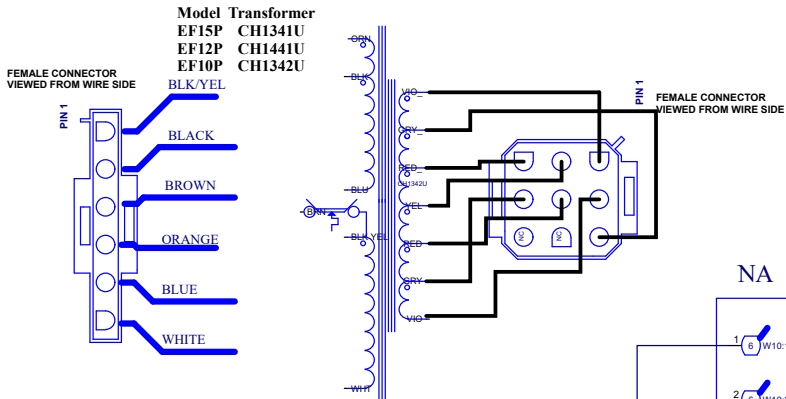
20k rolloff



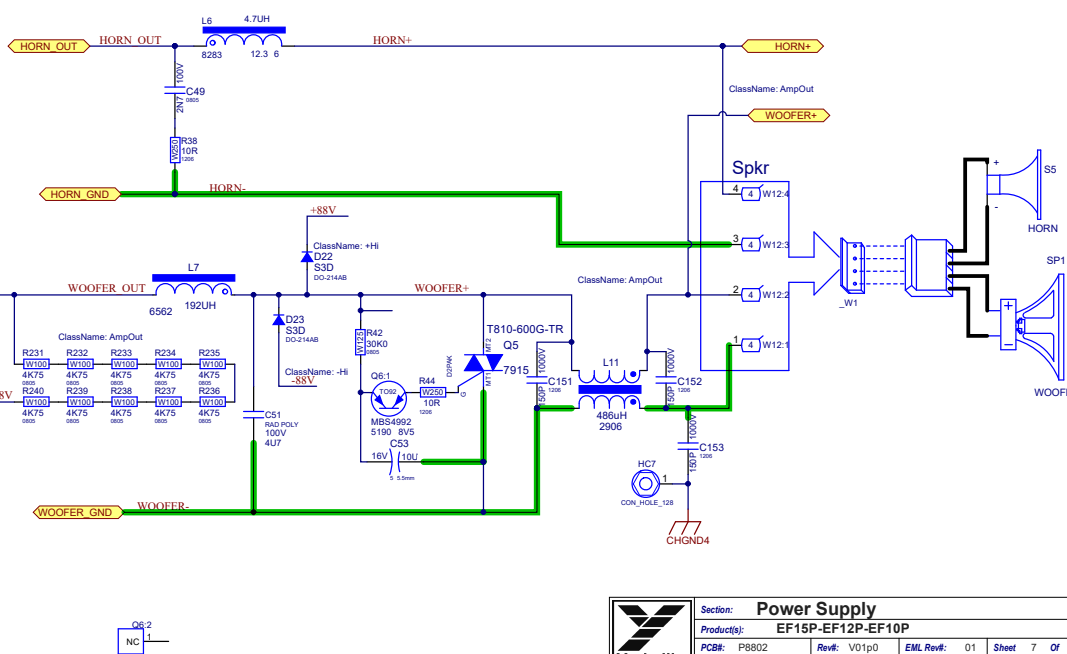
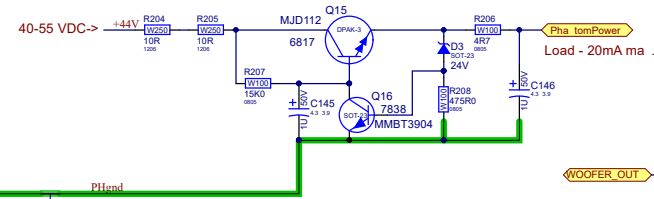
WOOFER OUTPUT



Section: DAC Output			
Product(s): EF15P-EF12P-EF10P			
PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 6 Of 8
Modified: 2018-06-06	File: Output.SchDoc	Tmp Rev: V031	



ALL DIODES S3D 200V 3A0 DIO D214 SMT
PUT PADS UNDER HIGH CURRENT AND ALTERNATE



Co ecid to CHGND1
PreAmp thru in the chassis.
Use a wire to co ect these two
poi to the work o the be ch.

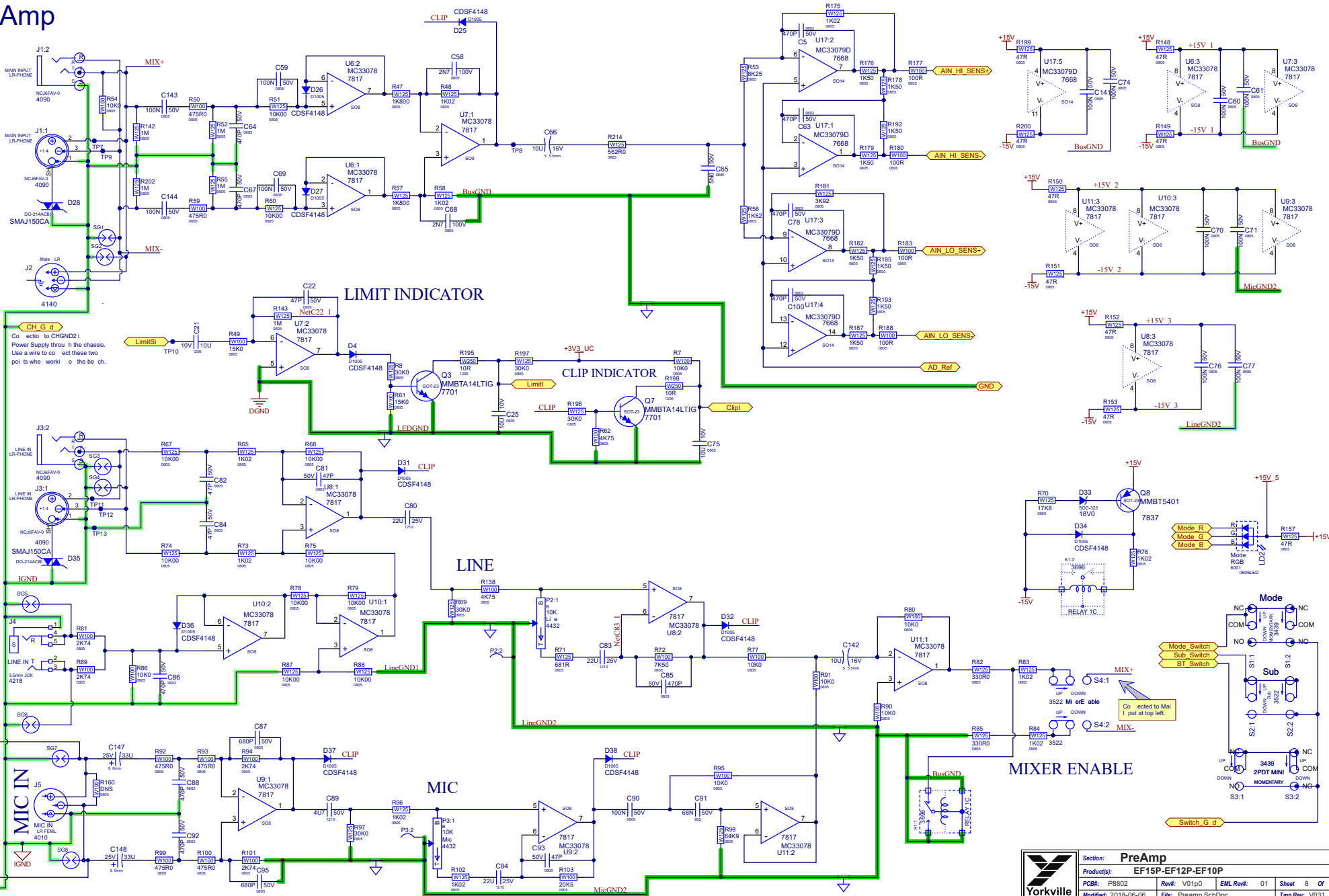
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	Product(s):	EF15P-EF12P-EF10P		
	PCB#: P8002	Rev#: V01p0	EML Rev#: 01	Sheet 7 Of 8
	Modified: 2018-06-06	File: POWER SUPPLY.SCHDOC	Temp Rev: V031	

PreAmp

MAIN INPUT

THRU

LINE IN



	Section:	PreAmp		
	ProductId:	EF15P-EF12P-EF10P		
	PCB#: P8802	Rev#: V01P0	EML Rev#: 01	Sheet 8 Of 8
	Modified: 2018-06-06	File: Preamp.Sch.Doc		Temp Rev: V031

PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. PCBSA: ADD RTV BETWEEN POWER SUPPLY CAPS AS SHOWN HERE.

The input section needs to be air tight. All vias and part holes must be filled with solder. Holes under the combi jacks and the program ports must be covered with tape.



PCB HARDWARE

SCREWS AND BOLTS

HW1
HW2
HW3
HW4

0637

NUTS

Plastic Gasket

HW19

PowerAmp

Amp1

STANDOFFS

MISCELLANEOUS

HW5
TieWrap
3841

HW6
TieWrap
3841

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



Section: Assembly Documentation	
ProductID: EF15P-EF12P-EF10P	
PCB#: P8802	Rev#: V01p0
Modified: 2018-06-06	File: Assembly.SchDoc
EML Rev#: 01	Sheet 9 of 11
Temp Rev: V031	

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

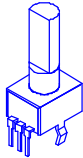
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
1
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POTENTIOMETERS AND KNOBS

POTENTIOMETERS AND KNOBS			
REF	FUNCTION	POT#	KNOB#
P1	MASTER LEVEL	4434	9014C
P2	LINE LEVEL	4432	9014C
P3	MIC LEVEL	4432	9014C
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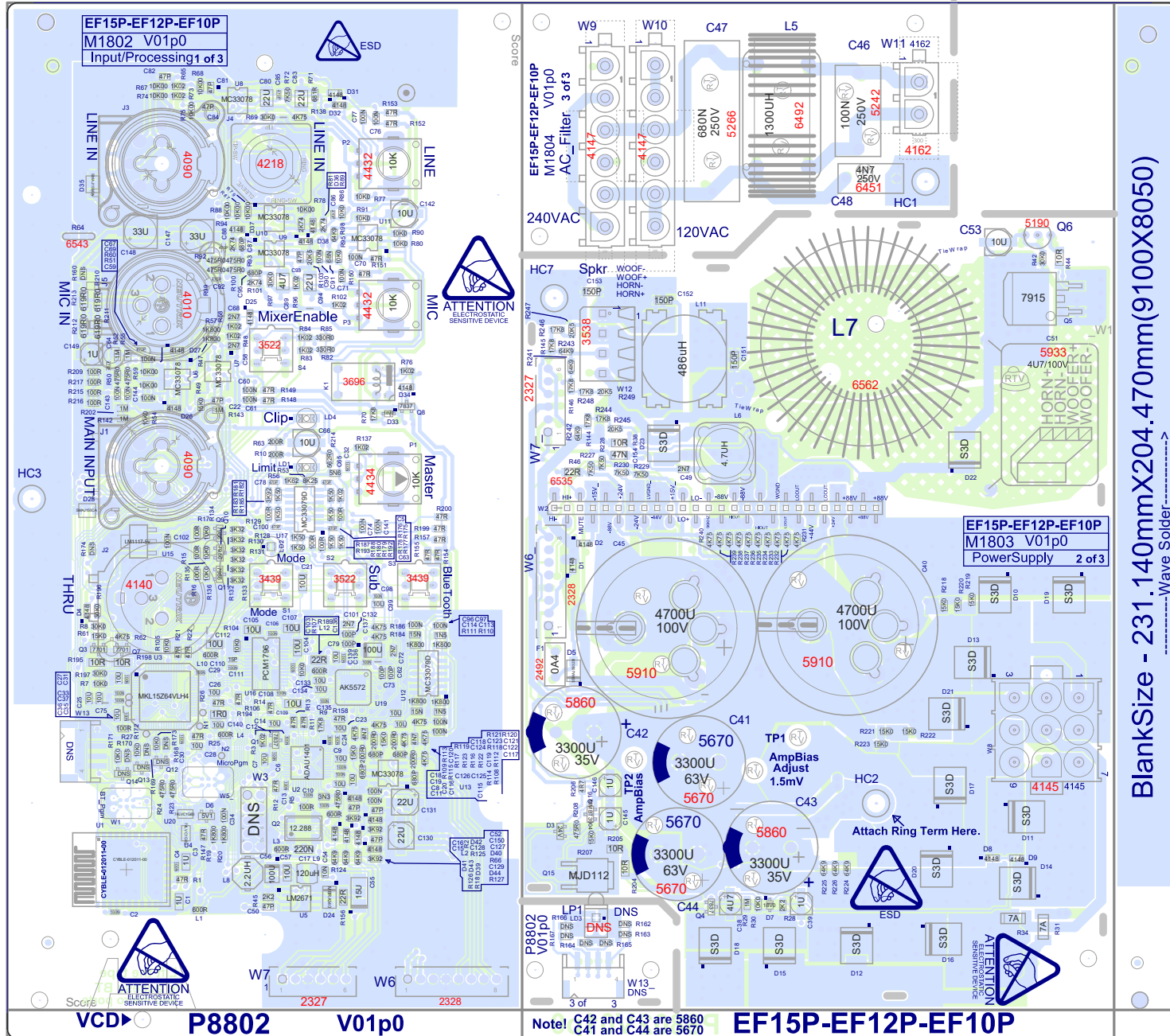
"STYLE_P32"

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

	Section: Design Information And History			
	Product(s): EF15P-EF12P-EF10P			
	PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 10 Of 11
	Modified: 2018-06-06	File: History.SchDoc	Temp Rev: V031	

P8802 V01p0

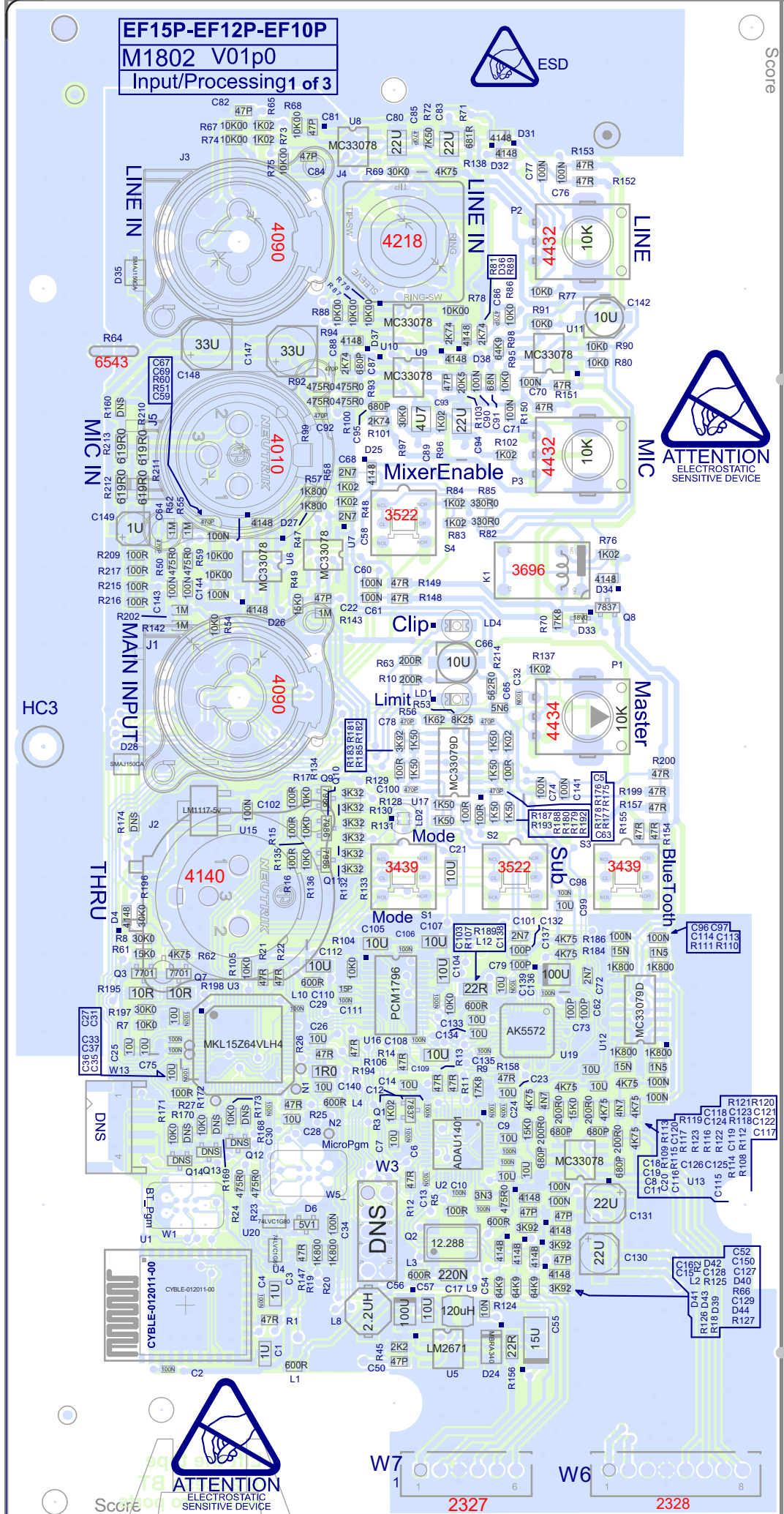


Blank Size - 231.140mm X 204.470mm (9100X8050) 

EF15P-EF12P-EF10P
M1802 V01p0
Input/Processing 1 of 3



Score

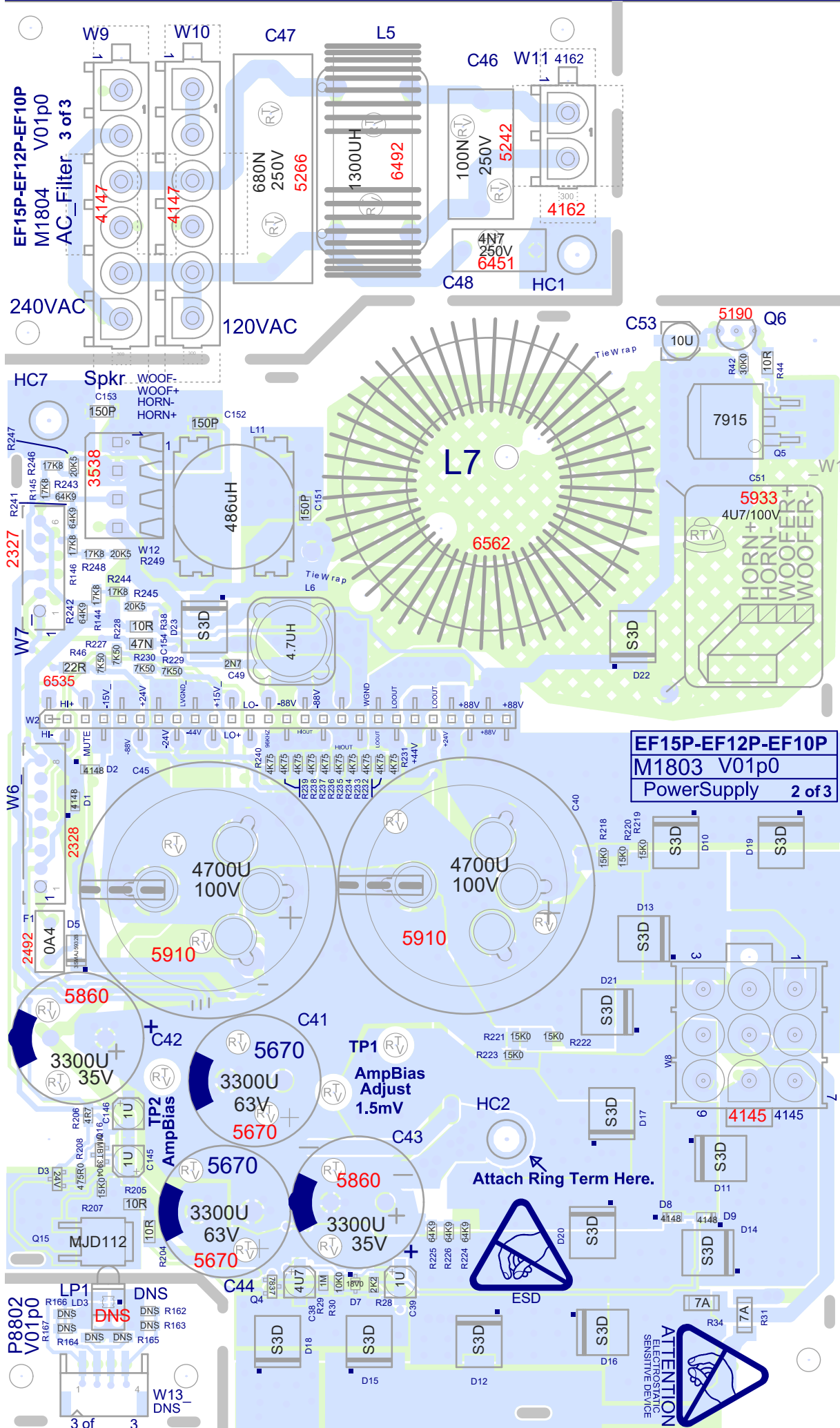


Score

2327

2328

VCD▶ P8802 V01p0



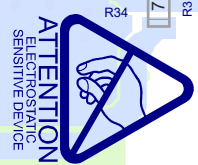
EF15P-EF12P-EF10P
M1803 V01p0
PowerSupply 2 of 3

BlankSize - 231.140mmX204.470mm(9100X8050)

-----Wave Solder----->

Note! C42 and C43 are 5860
C41 and C44 are 5670

EF15P-EF12P-EF10P



PCB ASSEMBLY DOCUMENTATION

SPECIAL PRODUCTION NOTES

1. PCBSA: ADD RTV BETWEEN POWER SUPPLY CAPS AS SHOWN HERE.

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PCB HARDWARE

SCREWS AND BOLTS

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HW2
HW3
HW4

8637

NUTS

Plastic Gasket

HW19

PowerAmp

Amp1

STANDOFFS

MISCELLANEOUS

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TieWrap
3841

HW6
TieWrap
3841

THIS SHEET CONTAINS SPECIAL PRODUCTION NOTES AND A LIST OF PCB HARDWARE PARTS REQUIRED FOR THE BUILD.



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Product(s):		EF15P-EF12P-EF10P			
PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 9	Of 11	
Modified: 2018-06-06	File: Assembly.SchDoc	Temp Rev: V031			

DESIGN HISTORY AND INFORMATION

CHANGE HISTORY

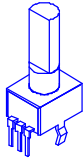
#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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#	DATE	VER#	PC#	DESCRIPTION OF CHANGE
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"STYLE_P32"

PINOUT DIAGRAMS

THIS SHEET CONTAINS A CHANGE HISTORY LOG, A LIST OF THE POTS & KNOBS AND A LEADS & PINS REFERENCE SECTION.

	Section: Design Information And History			
	Product(s): EF15P-EF12P-EF10P			
	PCB#: P8802	Rev#: V01p0	EML Rev#: 01	Sheet 10 Of 11
	Modified: 2018-06-06	File: History.SchDoc	Temp Rev: V031	



élite

Powered EF-Series



The élite EF-Series powered cabinets include a built in mixer allowing microphones and/or line sources to be used directly. The Link connectors allow up to 16 EF-Series powered cabinets to be driven from a single source (a maximum of 3 mixers can be used simultaneously when Linking). To add a subwoofer to the system a 100 Hz high pass filter can be activated.

Power Switch & Mode LED The switch turns the power On or Off and the illumination of the Mode LED indicates that unit is on.

Limit LED The amber Limit LED indicates that the cabinet is operating at full power and the limiter(s) are actively reducing the signal level.

Clip LED The red Clip LED indicates that the signal level is excessive and is causing distortion. To reduce clipping, turn down the mixer levels.

Main In/ Thru (Link) Connectors The Main In / Thru (Link) connectors allow powered cabinets to be driven from a single source. You can Link up to 16 EF-Series powered cabinets! The Main In / Thru (Link) jacks are the correct input to use when using an external mixer.

Note: When operating from weaker signals, use the Line inputs of the first cabinet in the chain. To ensure maximum hum rejection, the proper balanced cables must be used.

Mixer On/Off This switch turns the internal mixer 'on' or 'off.' When the Mic or Line inputs are used, this switch must be set to the 'on' position. If these inputs are not being used, the mixer should be turned 'off.'

Line Inputs The Line inputs allow line level sources such as digital media players (lap tops, tablets or smart phones) and CD players to be connected.

Note: If a microphone is connected to Channel 1 it will have lower gain compared to Channel 2's Mic input (Phantom power is NOT available on Channel 1).

Line Control The Line control adjusts the input volume level of devices plugged into the Line input.

Mic Inputs Any standard microphone may be connected to the Mic input. Phantom power is built-in.

Mic Control The Mic control adjusts the volume level for the Mic input.

Master Control This control adjusts the level of the individual cabinet. When Linking multiple cabinets use this control to individually adjust the relative volumes of each cabinet.

Note: The Master control is designed to be used in the 12 o'clock (middle) position, only minor adjustments are recommended.

Mode Selector The Mode Selector applies specific EQ and tone settings for the EF-Series powered cabinet.

Club: Boosted bass and enhanced highs make this mode ideal for music playback.

Concert: Allows instruments and vocals to be equally and naturally reproduced which is best for live performance.

Vocal: Shaped response specifically for the human voice range ensures vocal intelligibility.

User: Flat by default, can be customized by a user through the Yorkville app with a maximum of five different parametric equalization points with adjustable boost, cut and Q.

Sub Switch For operation with a subwoofer, this switch shuts off the low frequency boost and filters out signals below 100 Hz. This only affects the signals to the internal amplifier and does not affect signals going out from the internal mixer, or to signals passing through the Link connections.

Bluetooth™ Control This control enables or disables the Bluetooth™ connection between a tablet or a smartphone using the Yorkville App. Pressing this control button for more than 4 seconds resets the EF-Series powered cabinet to factory settings.

Faults and Internal Fuse A blown fuse generally means that excessive mains voltage has been applied or there's a serious fault with the unit. Self re-setting thermal switches are built into the power transformer. These will not trip even under the most extreme operating conditions and are provided only for safety reasons.

To get the full Owner's Manual please visit our website at

<http://www.yorkville.com/manuals/> or, if you need a printed version call 905-837-8777

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14305 USA

Printed In CANADA

QuickStart-EF_P-Series-1v7 • YS#QSTART-EFP • October 23, 2023



élite

Powered EF-Series



Les enceintes amplifiées de la série élite comprennent un mixeur intégré permettant de brancher directement les microphones et / ou les sources de niveau ligne. Les connecteurs Link permettent de lier jusqu'à 16 enceintes amplifiées de la série EF à partir d'une seule source (3 mixeurs au total peuvent être utilisés simultanément lors de la liaison). Un filtre passe-haut de 100 Hz peut être activé lorsque vous ajoutez un subwoofer au système.

Interrupteur d'Alimentation et DEL de Mode L'interrupteur allume ou éteint l'appareil et l'illumination de la DEL de mode indique que l'unité est en marche.

DEL Limit La DEL ambrée indique que l'enceinte fonctionne à pleine puissance et que le(s) limiteurs réduisent activement le niveau du signal.

DEL Clip La DEL Clip rouge indique que le niveau du signal est excessif et provoque une distorsion. Pour réduire la distorsion, baissez les niveaux du mixeur.

Entrée Main / Connecteur THRU (LINK) Les connecteurs d'entrée Main et Thru (Link) permettent d'acheminer le signal à des enceintes additionnelles à partir d'une source unique. Vous pouvez relier jusqu'à 16 enceintes amplifiées de la série EF! Utilisez les prises Link lorsque le signal qui alimente les enceintes de la série EF provient d'un mixeur externe.

Remarque: Lorsque vous utilisez des signaux moins puissants, utilisez les entrées Ligne de la première enceinte de la chaîne. Pour assurer un rejet maximum des bourdonnements, les câbles symétriques appropriés doivent être utilisés.

Mixeur On/Off Cet interrupteur active ou désactive le mixeur interne. Lorsque les entrées Mic ou Line sont utilisées, ce commutateur doit être en position "on." Si ces entrées ne sont pas utilisées, le mixeur devrait être éteint.

Entrée Ligne (Line) Les entrées "Line" permettent de connecter des sources de niveau ligne telles que des lecteurs multimédias numériques (ordinateurs portables, tablettes ou téléphones intelligents) et les lecteurs de CD.

Remarque: Un microphone peut être connecté à la prise Combi-Jack du canal 1, mais son gain est inférieur à celui de l'entrée Mic du canal 2 (et l'alimentation en duplex n'est PAS disponible pour l'entrée du canal 1).

Commande Line La commande "Line" ajuste le niveau de volume d'entrée des périphériques branchés dans l'entrée "Line."

Entrées Mic Tout microphone standard peut être connecté à l'entrée Mic. L'alimentation en duplex est intégrée.

Commande Mic La commande Mic règle le volume de l'entrée Mic.

Commande Master Cette commande ajuste le niveau de l'enceinte amplifiée individuelle. Lorsque vous reliez plusieurs enceintes, utilisez cette commande pour ajuster individuellement les volumes relatifs de chaque enceinte.

Remarque: La commande Master est conçue pour être utilisée à la position de 12 heures (milieu), seuls des ajustements mineurs sont recommandés

Sélecteur de Mode Le sélecteur de mode applique des paramètres d'égalisation et de tonalité spécifiques pour l'enceinte amplifiée de la série EF.

Club: Les basses et les aigües rehaussées rendent ce mode idéal pour la lecture de musique.

Concert: Permet aux instruments et aux voix d'être reproduits de manière égale et naturelle, ce qui est idéal pour les performances live.

Vocal: Réponse en fréquence spécifiquement adaptée pour la voix humaine afin d'assurer l'intelligibilité des voix.

User: Courbe linéaire par défaut, peut être personnalisé grâce à l'application Yorkville avec un maximum de cinq points d'égalisation paramétriques différents avec boost, coupure et Q réglable.

Commutateur Sub Pour une utilisation avec un subwoofer, le commutateur Sub éteint l'amplification des basses fréquences et filtre les signaux inférieurs à 100 Hz. Ce commutateur n'affecte que les signaux de l'amplificateur interne et n'affecte pas les signaux sortant du mixeur interne ou les signaux passant par les connexions Link.

Commande Bluetooth™ Cette commande active ou désactive la connexion Bluetooth™ entre une tablette ou un smartphone à l'aide de l'application Yorkville. Appuyez sur ce bouton de commande pendant plus de 4 secondes pour réinitialiser l'enceinte amplifiée de la série EF aux réglages d'usine.

Défauts et Fusible Interne Un fusible grillé signifie généralement qu'une tension secteur excessive a été appliquée ou qu'il y a un problème grave avec l'appareil. Des thermoprotecteurs à réenclenchement automatique sont intégrés au transformateur de puissance. Ceux-ci ne se déclencheront pas même dans les conditions de fonctionnement les plus extrêmes et ne sont fournis que pour des raisons de sécurité.

Pour obtenir le manuel de l'utilisateur visitez notre site Web à <http://www.yorkville.com/manuals/> ou, si vous avez besoin d'une version imprimée appelez-nous au 905-837-8777

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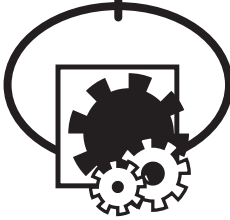
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www.yorkville.com

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Yorkville Sound Inc.
4625 Witmer Industrial Estate
Niagara Falls, New York
14305 USA

EYEBOLT INSTALLATION



1. DESCRIPTION

Many of the popular models in the Yorkville speaker cabinet line are now equipped with flying hardware for overhead suspension applications. Depending on the model, two or more internal braces have been provided for rigging purposes. Each brace contains two bolt holes and provides center-of-gravity fly-points for use with in-line or angular loads. Many of the models will support additional suspended cabinets according to their specified working load limits.



IMPORTANT!!
 THE RIGGING OF LOUDSPEAKER SYSTEMS IS AN EXTREMELY SERIOUS MATTER. OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, INCLUDING (BUT NOT LIMITED TO) CALCULATING WORKING LOAD LIMITS, HARDWARE INSTALLATION, AND PERIODIC SAFETY INSPECTION OF ALL HARDWARE AND CABINETRY. IF YOU LACK THESE QUALIFICATIONS, DO NOT ATTEMPT THE INSTALLATION YOURSELF, BUT INSTEAD USE A PROFESSIONAL STRUCTURAL RIGGER. IMPROPER INSTALLATION CAN RESULT IN BODILY INJURY OR DEATH. CONSULT A STRUCTURAL ENGINEER TO CALCULATE ADDED LOADS FOR A BUILDING. STRUCTURAL REINFORCEMENT MAY BE NECESSARY TO INSURE A SAFE INSTALLATION.

2. REQUIRED TOOLS

- 4.5mm (7/32") Hex Wrench
- Thread lock adhesive (Removable Type)

3. EYEBOLT INSTALLATION

a) Using a 4.5mm (7/32") hex wrench, remove the flat head bolts from the top or bottom of the speaker enclosure to expose the tapped holes (on TX models, the flat head bolts are located within the track rails), as shown below. Be sure to keep these handy as they will be needed to seal the cabinet after the eyebolts are removed.



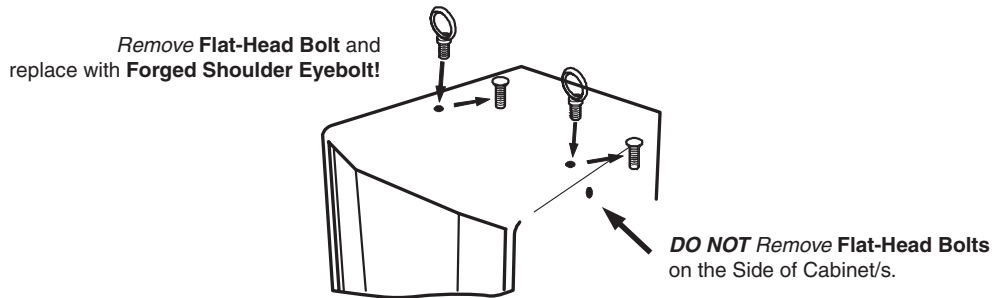
IMPORTANT!!
 USE ONLY LOAD RATED FORGED EYEBOLTS. THESE MAY BE PURCHASED THROUGH YORKVILLE SOUND OR ATM FLY-WARE™. TO INSURE CABINET-BRACING STRENGTH, MAKE SURE ALL FLY-POINTS ARE SECURED WITH EITHER AN EYEBOLT OR FLAT HEAD HEX BOLT.

b) Place a drop of thread-lock adhesive on the threads of the eyebolt and insert one into exposed hole. Tighten each eyebolt by hand until its fits snugly against the cabinet. Further tighten each eyebolt by rotating it another half turn. Be sure to insert eyebolts in the threaded hole directly in-line with the suspension cable. Always follow the eyebolt manufacturers installation and use instructions.

c) Suspend each cabinet according to working load calculations and practices recommended by the rigging hardware manufacturer.



IMPORTANT!!
 ON MODELS WITH ONLY TWO TOP SUSPENSION POINTS THE SUPPLIED PULL BACK AT THE REAR OF THE BOTTOM CENTER PANEL OF THE CABINET IS NOT TO BE USED AS A SUSPENSION POINT. THIS POINT TO BE USED FOR PULL BACK PURPOSES ONLY.



4. WORKING LOAD LIMITS

Specified working load limits have been determined for the enclosure as follows:

EF10P	2 Top, 2 Bottom, 2 Each Side, 1 Pullback (bottom)		8 x 1/4-20	weight of cabinet only
EF12P+EF15P	2 Top, 2 Bottom, 2 Each Side, 2 Pullback		8 x 1/4-20	weight of cabinet only
EF215P	2 Top, 2 Bottom, 2 Each Side, 2 Pullback		8 x 1/4-20	weight of cabinet only



IMPORTANT!! READ ALL ENCLOSED INSTRUCTIONS ABOUT PROPER USE OF HARDWARE. TO INSURE PROPER INSTALLATION, FOR TECHNICAL INFORMATION ON SUSPENSION TECHNIQUES AND EXTERIOR ACCESSORY INFORMATION WE SUGGEST CALLING ATM FLY-WARES TECHNICAL SERVICES IN THE UNITED STATES AT (310)639-8282 MONDAY THROUGH FRIDAY FROM 9 AM TO 6 PM (PST) OR FAX AT (310)639-8284. YORKVILLE SOUND MAKES NO CLAIMS AS TO THE SAFETY OF THE ENCLOSURES IF RECOMMENDED LOAD LIMITS AND HARDWARE ARE NOT STRICTLY ADHERED TO. NOR DOES IT MAKE ANY SAFETY CLAIMS TO THE RESULTANT INSTALLATION.



IMPORTANT!! TRACK RAILINGS: UNITS THAT INCORPORATE THE TRACK RAILING SYSTEM HAVE THE SAME WORKING LOAD LIMITS AS THEY DO WHEN THEY ARE USED WITH EYEBOLTS. THESE RATINGS MAY BE LIMITED AND BASED ON THE RATINGS OF THE TRACK FITTINGS THEMSELVES. PLEASE ENSURE THAT THE RATING OF THE CERTIFIED TRACK FITTINGS EXCEEDS NECESSARY WORKING LOAD LIMITS.

EYEBOLT INSTALLATION

1. DESCRIPTION

Plusieurs des modèles populaires de la ligne d'enceinte à haut-parleur Yorkville sont maintenant équipés de quincaillerie de montage pour les applications requérant une suspension aérienne. Dépendamment du modèle, deux ou plusieurs attaches internes sont prévues pour de tels montages. Chaque attache contient deux trous de boulon et offre des points de montage centre de gravité pour utilisation avec charges droites ou anguleuses. Plusieurs des modèles permettent la suspension de cabinets additionnels selon leur limite de charge de travail spécifique.



IMPORTANT!! LE MONTAGE DE SYSTÈME DE HAUT-PARLEUR EST UNE AFFAIRE TRÈS SÉRIEUSE. LES MONTAGES IMPLIQUANT UNE SUSPENSION AÉRIENNE NÉCESSITENT UNE CONNAISSANCE APPROFONDIE, INCLUANT (MAIS NON-LIMITÉE) AU CALCUL DES LIMITES DE CHARGE DE TRAVAIL, LA QUINCAILLERIE D'INSTALLATION, ET INSPECTIONS PÉRIODIQUES DE SÉCURITÉ DE TOUTE LA QUINCAILLERIE ET DE L'ÉBÉNISTERIE. SI VOUS N'AVEZ PAS CES QUALIFICATIONS, NE TENTEZ PAS DE FAIRE VOUS-MÊME L'INSTALLATION, AYEZ PLUTÔT RECOURS À UN PROFESSIONNEL DU DOMAINE. UNE INSTALLATION INADÉQUATE PEUT CAUSER DES BLESSURES CORPORELLES OU MÊME LA MORT. CONSULTEZ UN INGÉNIEUR EN STRUCTURE POUR CALCULER LA CHARGES ADDITIONNELLE AJOUTÉE AU BÂTIMENT. UN RENFORCEMENT DE LA STRUCTURE DU BÂTIMENT POURRAIT ÊTRE NÉCESSAIRE POUR ASSURER UNE INSTALLATION SÛRE.

2. OUTILS REQUIS

Clé Hex 4.5mm (7/32")

Adhésif de verrouillage pour filetage (Type amovible)

3. INSTALLATION DES BOULONS À OEIL

a) À l'aide d'une Clé Hex 4.5mm (7/32"), enlevez le boulon à tête plate du dessus ou du dessous de l'enceinte à haut-parleur pour découvrir les trous filetés (sur les modèles TX, les boulons à tête plate sont situés à l'intérieur des quincailleries de montage intégré), tel qu'indiqué ci-dessous.

Assurez-vous de ne pas perdre ces boulons à tête plate. Vous devrez les ré-utiliser pour fermer hermétiquement le cabinet quand les boulons œil seront enlevés.



IMPORTANT!! N'UTILISEZ QUE DES BOULONS À OEIL CLASSIFIÉ POUR LES CHARGES REQUISES. VOUS POUVEZ VOUS LES PROCURER DE YORKVILLE SOUND OU ATM FLYWARE™. POUR PRÉSERVER UNE FORCE MAXIMALE DE L'ENTRETOISEMENT DU CABINET, ASSUREZ-VOUS QUE TOUS LES POINTS DE SUSPENSION SONT FIXÉS SOLIDEMENT AVEC SOIT UN BOULON À OEIL, SOIT UN BOULON HEX À TÊTE PLATE

b) Placez une goutte d'adhésif de verrouillage sur le filetage du boulon à œil et placez-en une dans le trou exposé. Resserez chaque boulon à œil à la main jusqu'à ce qu'ils soient bien serrés contre l'enceinte. Serrez encore chaque boulon à œil en les tournant un autre demi-tour.

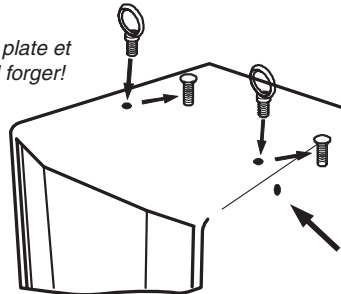
Assurez-vous d'insérer les boulons à œil dans les trous filetés directement en ligne avec le câble de suspension. Toujours suivre les instructions d'installation et d'utilisation du fabricant des boulons à œil.

c) Suspendez chaque enceinte selon le calcul de charge de travail et les pratiques recommandées par le fabricant de la quincaillerie de montage.



IMPORTANT!! LES MODÈLES ÉQUIPÉS DE SEULEMENT DEUX POINT DE SUSPENSION SUR LE DESSUS, SONT DOTÉ D'UN POINT DE TIRE À L'ARRIÈRE SUR LE PANNEAU CENTRAL DU BAS. CE POINT DE TIRE NE DOIT PAS ÊTRE UTILISÉ COMME POINT DE SUSPENSION. CE POINT DE TIRE NE DOIT SEULEMENT ÊTRE UTILISÉ QUE POUR TIRER L'ENCEINTE VERS L'ARRIÈRE..

Enlevez le Boulon à tête plate et
Remplacez-le avec un boulon à œil forger!



N'enlevez pas les boulons à tête
plate sur le côté de l'enceinte/s

4. LIMITES DE CHARGE DE TRAVAIL

Les limites de charge spécifiées ont été déterminées pour chaque enceinte comme suit:

EF10P	2 Top, 2 Bottom, 2 Each Side, 1 Pullback (bottom)		8 x 1/4-20	weight of cabinet only
EF12P+EF15P	2 Top, 2 Bottom, 2 Each Side, 2 Pullback		8 x 1/4-20	weight of cabinet only
EF215P	2 Top, 2 Bottom, 2 Each Side, 2 Pullback		8 x 1/4-20	weight of cabinet only



IMPORTANT!! LIRE TOUTE LA DOCUMENTATION INCLUSE AU SUJET DE L'UTILISATION APPROPRIÉ DE LA QUINCAILLERIE. POUR ASSURER UNE BONNE INSTALLATION, POUR OBTENIR DE L'INFORMATION TECHNIQUE SUR LES DIVERSES TECHNIQUES DE SUSPENSION ET POUR OBTENIR DE L'INFORMATION SUR LES ACCESSOIRES EXTÉRIEURS NOUS VOUS SUGGÉRONS D'APPELER LE SERVICE TECHNIQUE DE ATM FLY-WARE AUX ETATS-UNIS AU (310)639-8282 DU LUNDI AU VENDREDI DE 9 AM À 6 PM (HSP) OU PAR FAX AU (310)639-8284. YORKVILLE SOUND NE GARANTIE PAS UNE UTILISATION SÉCURITAIRE DES ENCEINTES SI LES LIMITES DE CHARGE RECOMMANDÉES NE SONT PAS RESPECTÉES ET SI VOUS N'ADHÉREZ PAS STRICTEMENT À LA LISTE DE QUINCAILLERIE RECOMMANDÉE.



IMPORTANT!! RAILS DE MONTAGE (TRACK RAILINGS): LES ENCEINTES INCORPORANT LE SYSTÈME DE RAIL DE MONTAGE ONT LES MÊMES LIMITES DE CHARGE DE TRAVAIL QU'ILS SOIENT SUSPENDUS AVEC LE SYSTÈME DE RAIL OU AVEC LES BOULONS À OEIL. CES VALEURS ASSIGNÉES DE LIMITE DE CHARGE PEUVENT ÊTRE LIMITÉS ET BASÉS SUR LA VALEUR DE LIMITE DE CHARGE ASSIGNÉE AUX APPAREILLAGES DE RAIL (TRACK FITTINGS) ELLE-MÊMES. ASSUREZ-VOUS S.V.P. QUE LA VALEUR ASSIGNÉE DE LIMITE CHARGE DE TRAVAIL SUR LES APPAREILLAGES CERTIFIÉS DE RAIL (TRACK FITTINGS) EXÈDE LES LIMITES NÉCESSAIRES DE CHARGE DE TRAVAIL.



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