

Technical Manual



JBL EON615

SPECIFICATIONS

ACOUSTIC & ELECTRICAL SPECIFICATIONS:

- Frequency Response (± 3 dB): 50 Hz - 20 kHz
- Frequency Range (-10 dB): 39 Hz - 20 kHz
- Maximum SPL Output: 127 dB
- Input Impedance: Ohms (balanced), Ohms (unbalanced)
- Power Rating: 1000W Peak (700W LF + 300W HF), 500W Continuous (350W LF + 150W HF)

SYSTEM COMPONENTS:

- Cabinet: Enclosure (Not For Sale)
- Grille:
- Low Frequency Driver: 615H 15 inch (380mm) woofer
- D.C.Resistance: 5.56 ohm +/- 10%

SYSTEM COMPONENTS: (CONT'D)

- High Frequency Driver: 2414H-1 37.5 mm (1.5") annular polymer diaphragm, neodymium compression driver
- D.C.Resistance: 3.60 ohm $\pm 0.2\%$

AURAL SWEEP TEST SPECIFICATIONS:

- A. System.Aural Sweep Test: 0.065V input, 50 Hz to 10 kHz
- B. L.F.Aural Sweep Test: 7.0V Input, 10 Hz to 300 Hz
- C. H.F.Aural Sweep Test: 0.75V Input, 500 Hz to 1.5 kHz

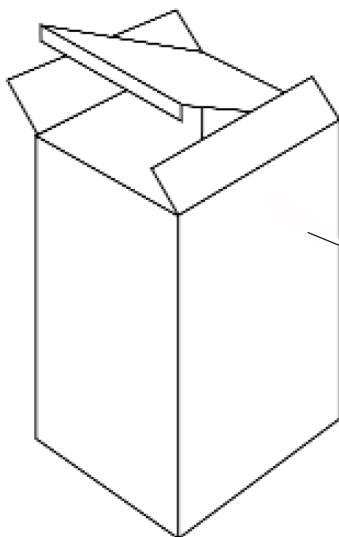
PHYSICAL SPECIFICATIONS:

- Enclosure Dimensions: 707 x 439 x 365mm (H x W x D) (27.8 x 16.8 x 14.5i n.)
- Net Weight: 17.69 kg (39 lbs)

WARRANTY INFORMATION:

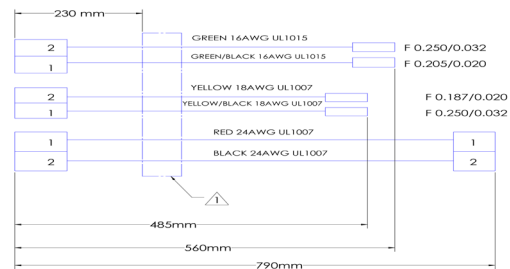
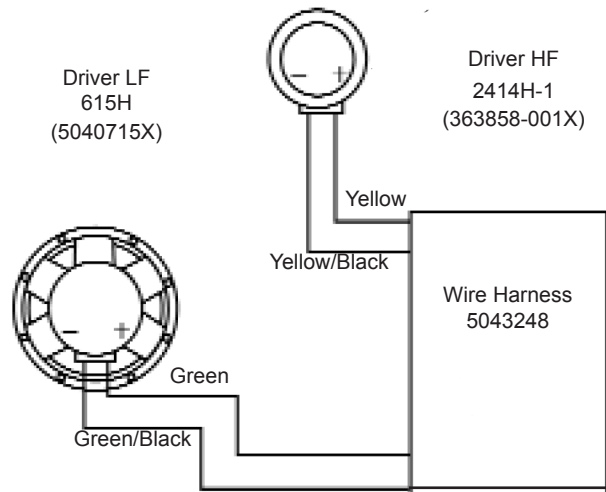
- Refer to Warranty Statement packed with each product.

PACKAGE



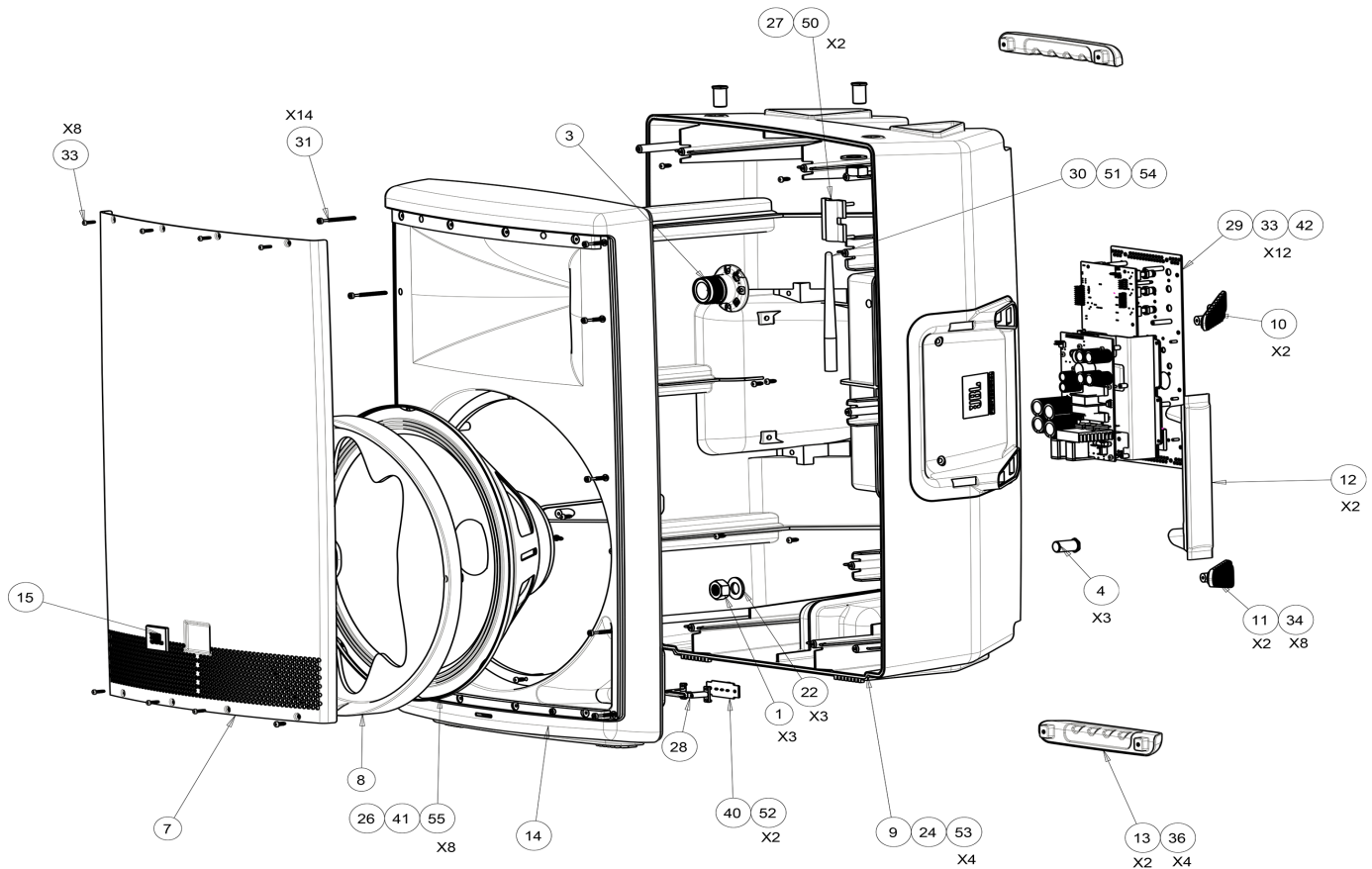
- Quick Setup Guide 5043250
- Beauty Carton 5043256
- Filler 5043260 (2)
- Shipping Carton 5043258
- Cord, AC, Line 425-00000-00 (120V) 425-00000-01 (220V)

WIRING DIAGRAM



JBL EON615

COMPONENT EXPLODED VIEW

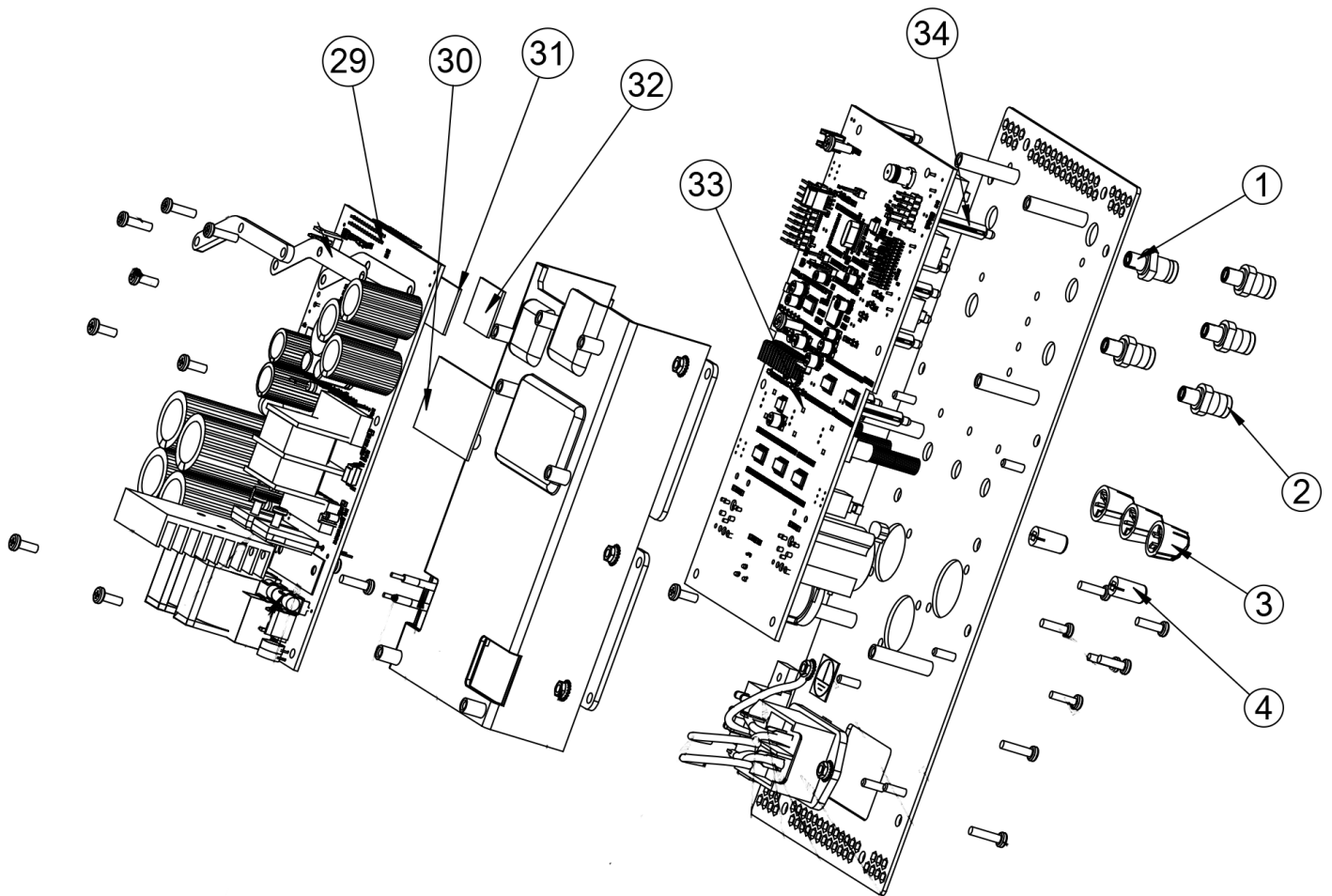


COMPONENT PARTS LIST:

Item	Part No.	Qty	Description	Item	Part No.	Qty	Description
1	838-00900-00	3	NUT, M14 FINE, CLR ZINC RH	33	5043266	20	SCREW, AMPLIFIER & GRILLE, EON600
3	363858-001X	1	M/I, 2414H-1	34	883-41110-12	8	SCR, 8x3/4, Pan, PH, BLK Zinc, LCS
4	364616-001	3	FLY BOLT	36	5043269	4	Screw, Top/Bottom Handle
7	5039755	1	GRILLE, EON G4	40	5044213	1	EON615,LIGHT PCB ASSEMBLY
8	5039904	1	WOOFER COVER PLATE	41	360-70002-01	1	GASKET, REAR 15"
9	5048432	1	EON615, REAR ENCLOSURE	42	5043248	1	Wire Harness w/Ferrite, EON615
10	5039907	2	FOOT, LEFT	50	5044889	2	EON600, LED-ANTENNA GASKET
11	5039908	2	FOOT, RIGHT	51	5044449	1	ANTENNA MODULE,EON600 SERIES
12	5039909	2	SIDE HANDLE ASSEMBLY	52	881-21400-20	2	SCR,PT,K35X32MM,PANHD, PH DRIVE, BLK
13	5039910	2	HANDLE, TOP/BOTTOM	53	5045827	4	TINNERMAN CLIP
14	5039926	1	BAFFLE, EON615	54	365462-001	1	CUP PLUG
15	5040033	1	LOGO BADGE, EON615	55	5043267	12	SCR, 4x1/2, RND, PH, WD, Clr Zinc, LCS (side hdl)
22	848-00100-02	3	WASHER, M14,REG, CLR ZINC	56	5046357	1	LINER, EON600
24	364835-001	11.3"	GASKET, ENCLOSURE EON515	57	5048960	1	Ferrite Bead LED Cable
26	5040715X	1	615H, 15" WOOFER	58	5048962	1	FERRITE BEAD ANTENNA, EON615
27	5041398	1	EON615 ANTENNA HOLDER				
28	5043063	1	EON615, FRONT LED LENS				
29	5043263	1	AMPLIFIER ASSY, EON615				
30	5044450	1	COAXIAL CABLE ASSY,600MM,EON600 SERIES				
31	5049473	14	SCR,PT,M4x40mm Baffle				

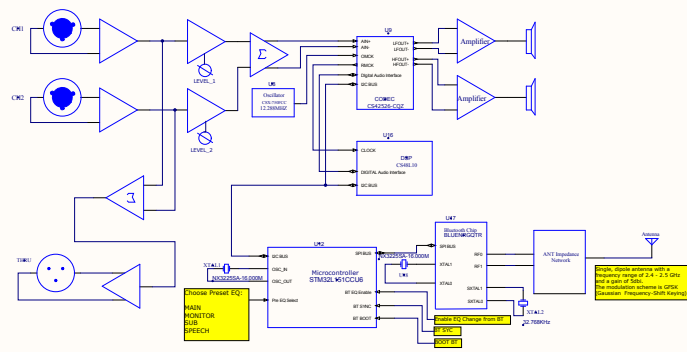
JBL EON615

COMPONENT EXPLODED VIEW



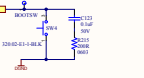
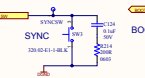
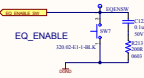
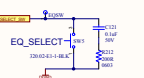
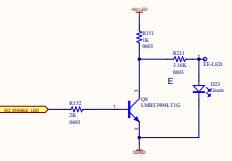
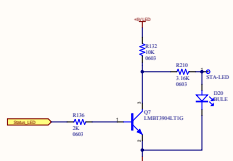
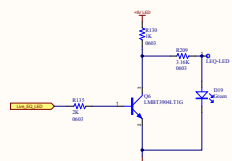
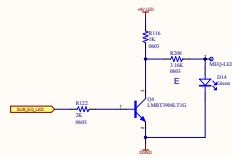
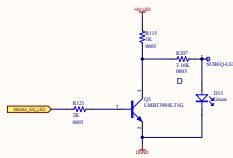
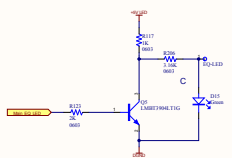
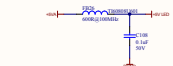
COMPONENT PARTS LIST:

Item	Part No.	Qty	Description
1	5054669	1	G4-Button ABS
2	5054670	4	G4-Button ABS
3	5054671	3	G4-Knob ABS
4	5054672	2	G4-Button Silicon Natural grey
8	xxxxxxx?	1	G4 rear plate SECC T=1.5mm CED Coating
10	5054673	1	IEC AC JACK inlet+switch 10A 250V
29	5054674	1	JBL G4 AMP PCBA ASS'Y
30	5054675	1	SILICON INSULATOR L53xW28xT1.0mm xGREY,adhesive DS11
31	5054676	1	SILICON INSULATOR L23xW18xT1.0mm xGREY,adhesive DS11
32	5054677	1	SILICON INSULATOR L20xW10xT1.0mm
33	5054678	1	JBL G4 DSP PCBA ASS'Y
34	5054679	10	LED Spacer Nylon LE52222-5

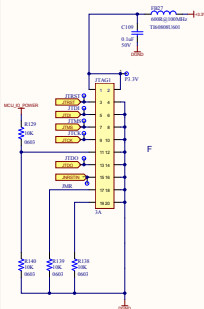


JBL Professional			
Title EON 600 Block Diagram			
Rev D	Page Block Diagram.SchDoc	Rev A	
Date August 13, 2014	Engineer Wu Song		
Filename Block Diagram.SchDoc	Sheet 1	of 1	

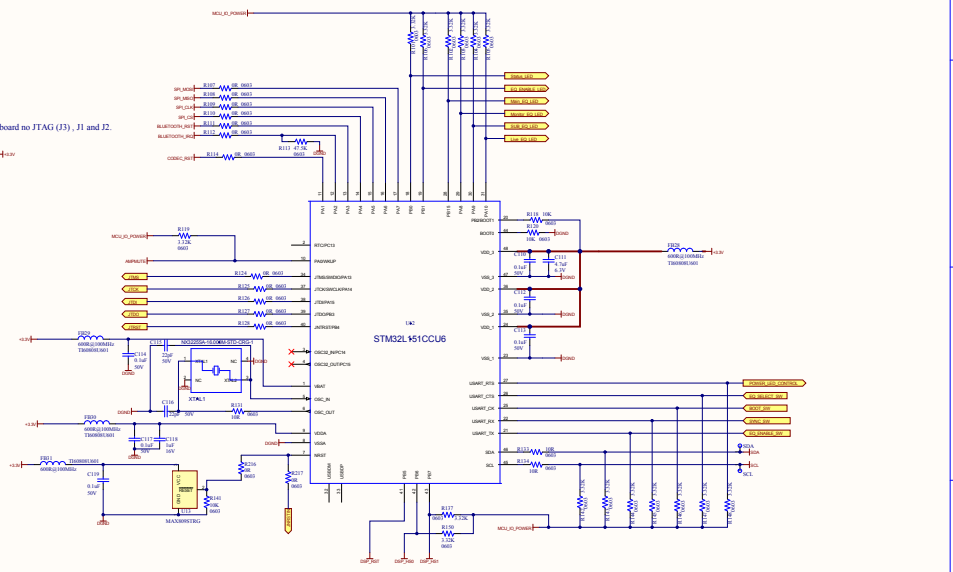
SWITCHES and LED Controls



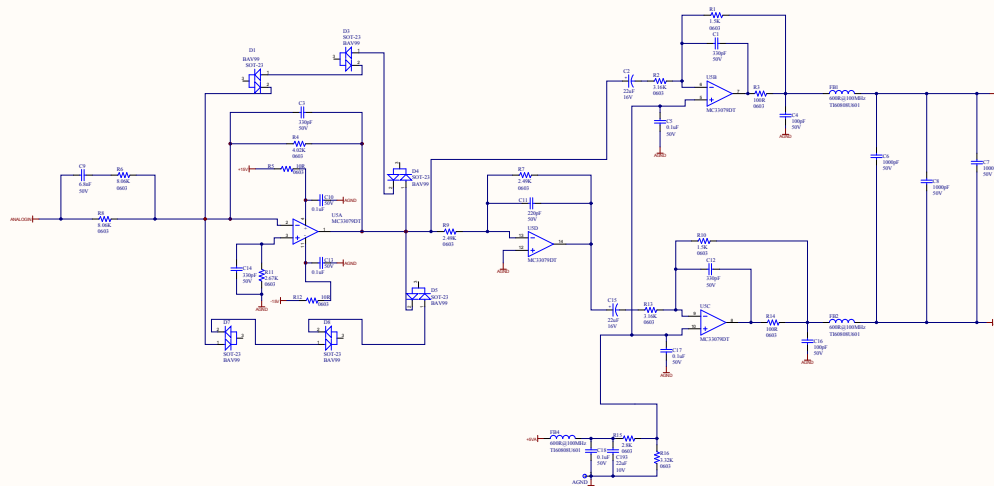
When Using JTAG (J3) close J1 open J2, in target board no JTAG (J3), J1 and J2.



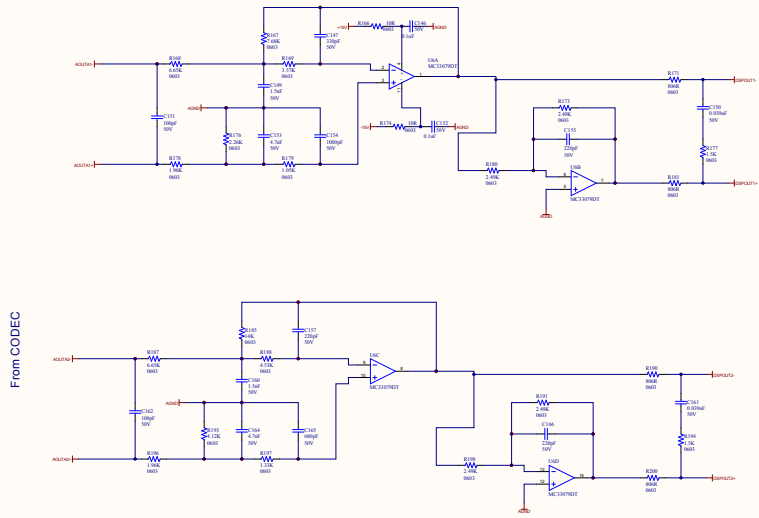
All unused I/O should be configured as analog input and all decoupling caps should be put as close as possible to the micro.



JBL Professional			
Title: EON 600			
Rev: D	Page: CPU.SchDoc	Rev: D	
Date: Apr 28, 2014	Engineer: Wu Song		
Filename: CPU.SchDoc	Sheet: 1	of 7	

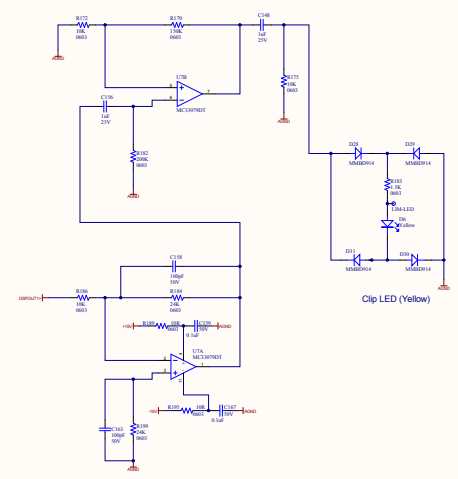


JBL Professional			
Title EON 600			
Rev D	Part ADC Limiter and Pre-emphasis.SchDoc	Rev D	
Date Apr 28, 2014	Engineer Wu Song		
Filename ADC Limiter and Pre-emphasis.SchDoc	Sheet 2	of 7	



To 26 PIN Connector

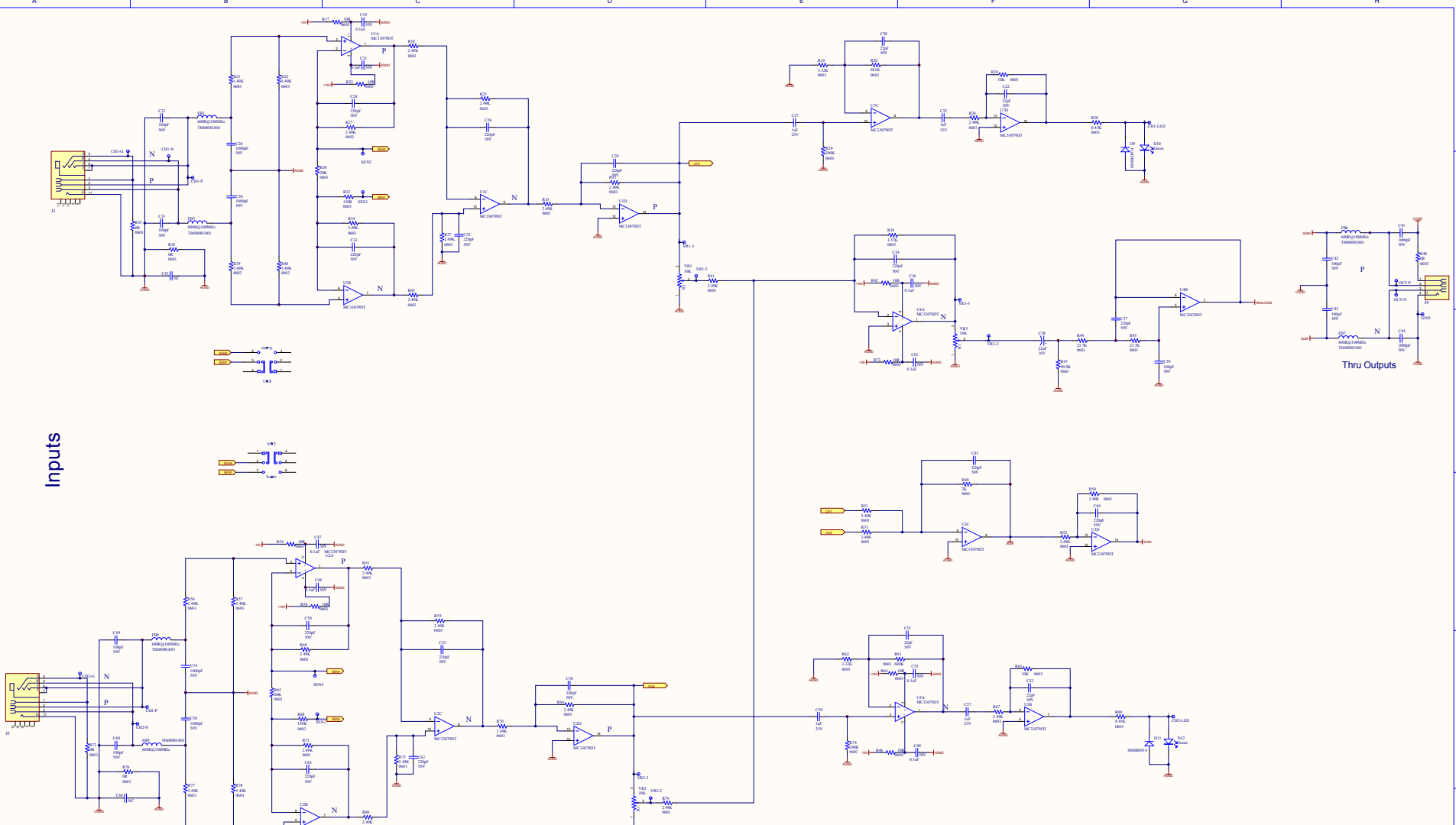
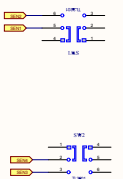
This is a comparator configuration. Monitors the DAC(CLPDAC) and when near saturation (+/- 1.20V pk) outputs a square wave. The threshold is set by the resistor network at the (+) input.



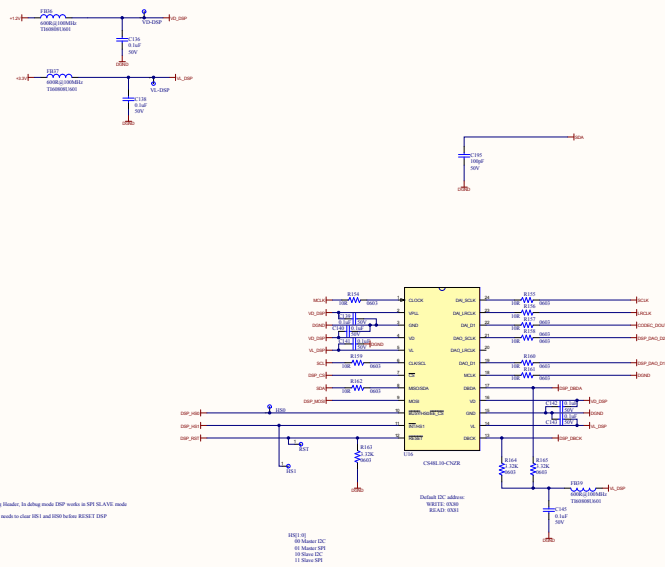
Clip LED (Yellow)

JBL Professional			
Title: EON 600			
Doc ID: D	Page: Output Filters.SchDoc	Rev: D	
Date: Apr 28, 2014	Engineer: Wu Song		
Filename: Output Filters.SchDoc	Sheet: 3	of 7	

Inputs



JBL Professional			
Title EON 600			
Rev D	Page 1	Author Analog Input Mixer.SchDoc	
Date Apr 28, 2014	Engineer Wu Song		
Filename Analog Input Mixer.SchDoc	Sheet 4	of 7	

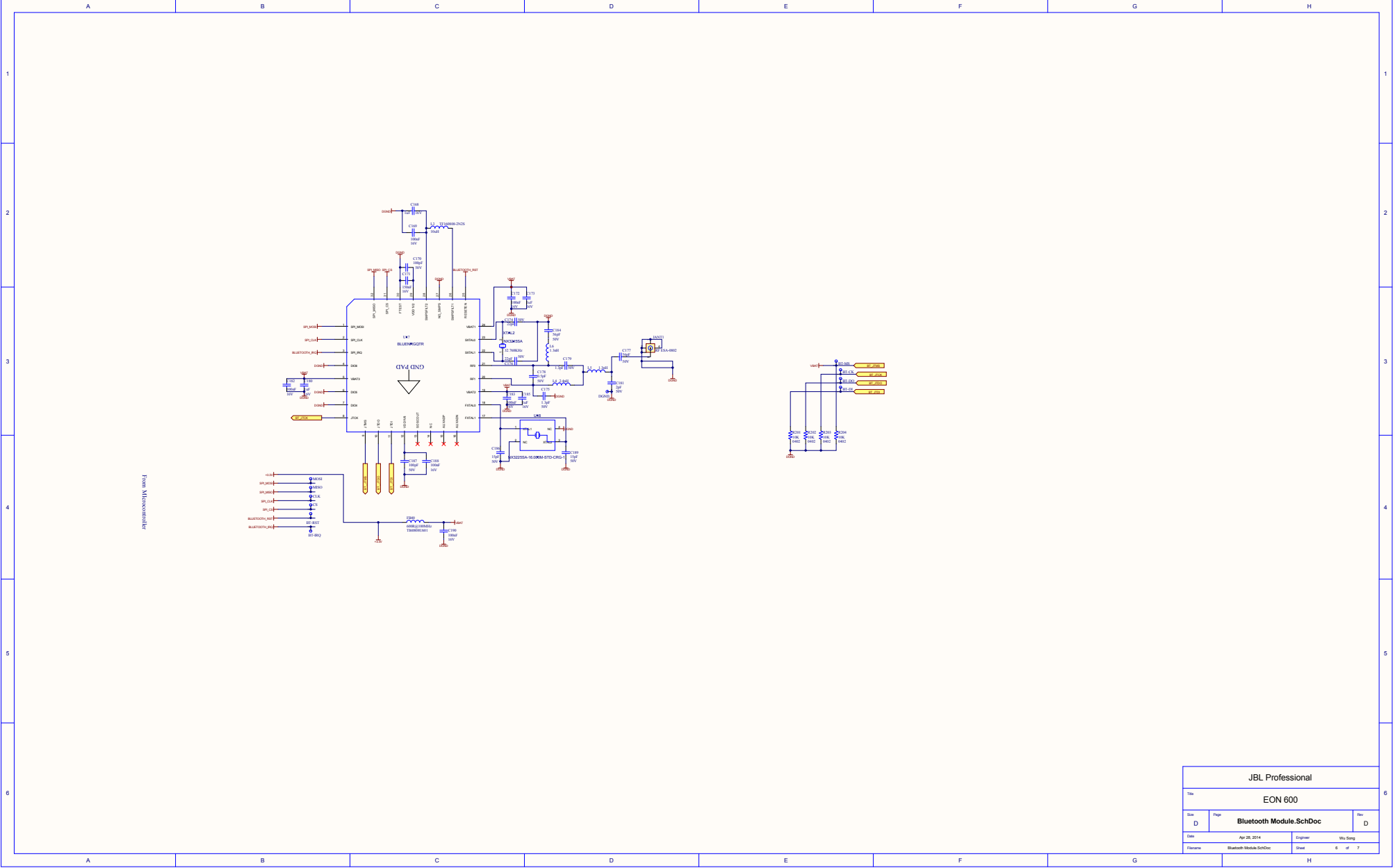


During standby, to allow mode DSP mode to REF (DAVE mode)
MCT1 needs to clear SR0 and SR0 before RESET DSP

- DAVE DC
- 5V 10uF DC
- 5V 10uF DC
- 5V 10uF DC
- 5V 10uF DC

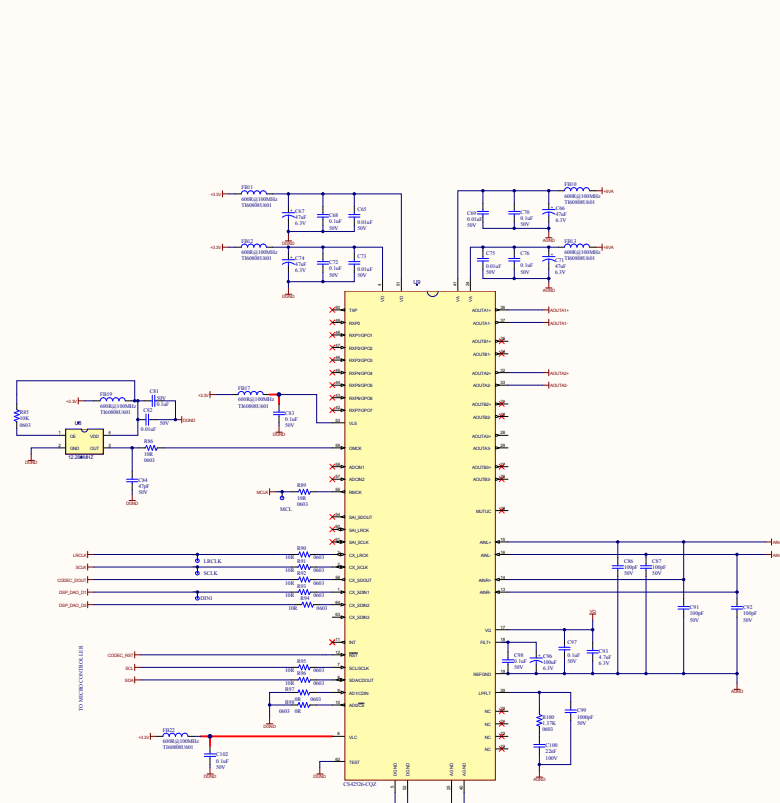
CONFIG DSP in 1 DAI3 DAO mode, DAO_1_HF, DAO_2 (DAO_SCLK) LF and DAO_3 (DAO_LRCLK) thru out, DAO clock slave to DAI clock, also config DAI clock as slave

JBL Professional			
Title EON 600			
Doc D	Page DSP.SchDoc	Rev D	Rev D
Date Apr 28, 2014	Engineer Wu Song	Sheet 5 of 7	
Filename DSP.SchDoc	Sheet 5 of 7		



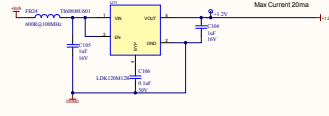
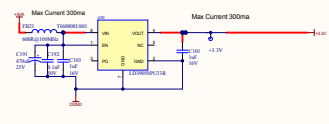
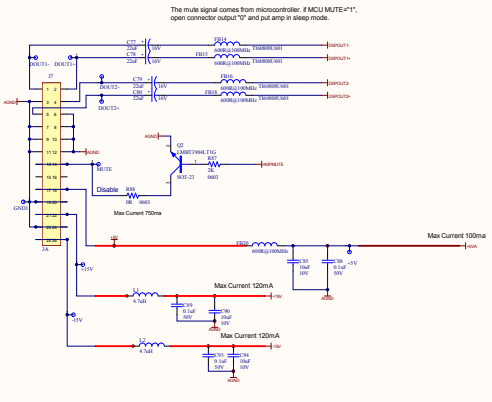
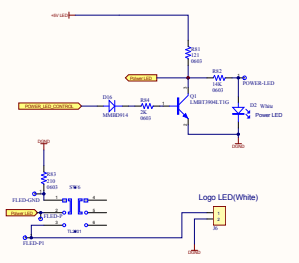
From Manufacturer

JBL Professional			
Title EON 600			
Doc D	Page Bluetooth Module.SchDoc	Rev D	
Date Apr 28, 2014	Engineer Wu Song		
Filename Bluetooth Module.SchDoc	Sheet 6	of 7	

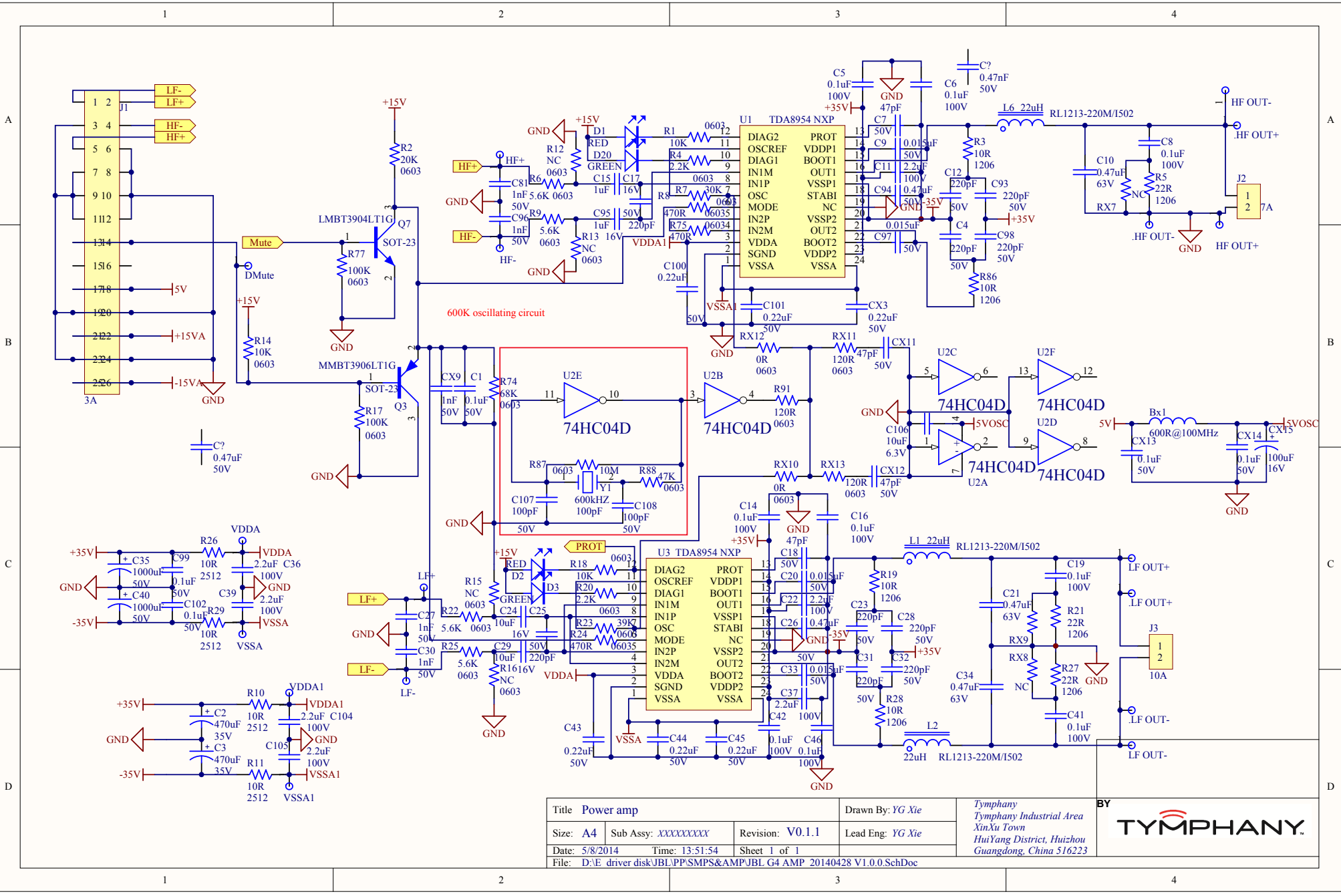



Route DMO_1 I/F to AOKTA1<1>, DMO_2 I/F to AOKTA2<1> and DMO_3 I/F out to AOKTA3<1>.
 Do not DC connect TEST1, TEST2, TEST3, TEST4, TEST5, TEST6, TEST7, TEST8, TEST9, TEST10, TEST11, TEST12, TEST13, TEST14, TEST15, TEST16, TEST17, TEST18, TEST19, TEST20, TEST21, TEST22, TEST23, TEST24, TEST25, TEST26, TEST27, TEST28, TEST29, TEST30, TEST31, TEST32, TEST33, TEST34, TEST35, TEST36, TEST37, TEST38, TEST39, TEST40, TEST41, TEST42, TEST43, TEST44, TEST45, TEST46, TEST47, TEST48, TEST49, TEST50, TEST51, TEST52, TEST53, TEST54, TEST55, TEST56, TEST57, TEST58, TEST59, TEST60, TEST61, TEST62, TEST63, TEST64, TEST65, TEST66, TEST67, TEST68, TEST69, TEST70, TEST71, TEST72, TEST73, TEST74, TEST75, TEST76, TEST77, TEST78, TEST79, TEST80, TEST81, TEST82, TEST83, TEST84, TEST85, TEST86, TEST87, TEST88, TEST89, TEST90, TEST91, TEST92, TEST93, TEST94, TEST95, TEST96, TEST97, TEST98, TEST99, TEST100.

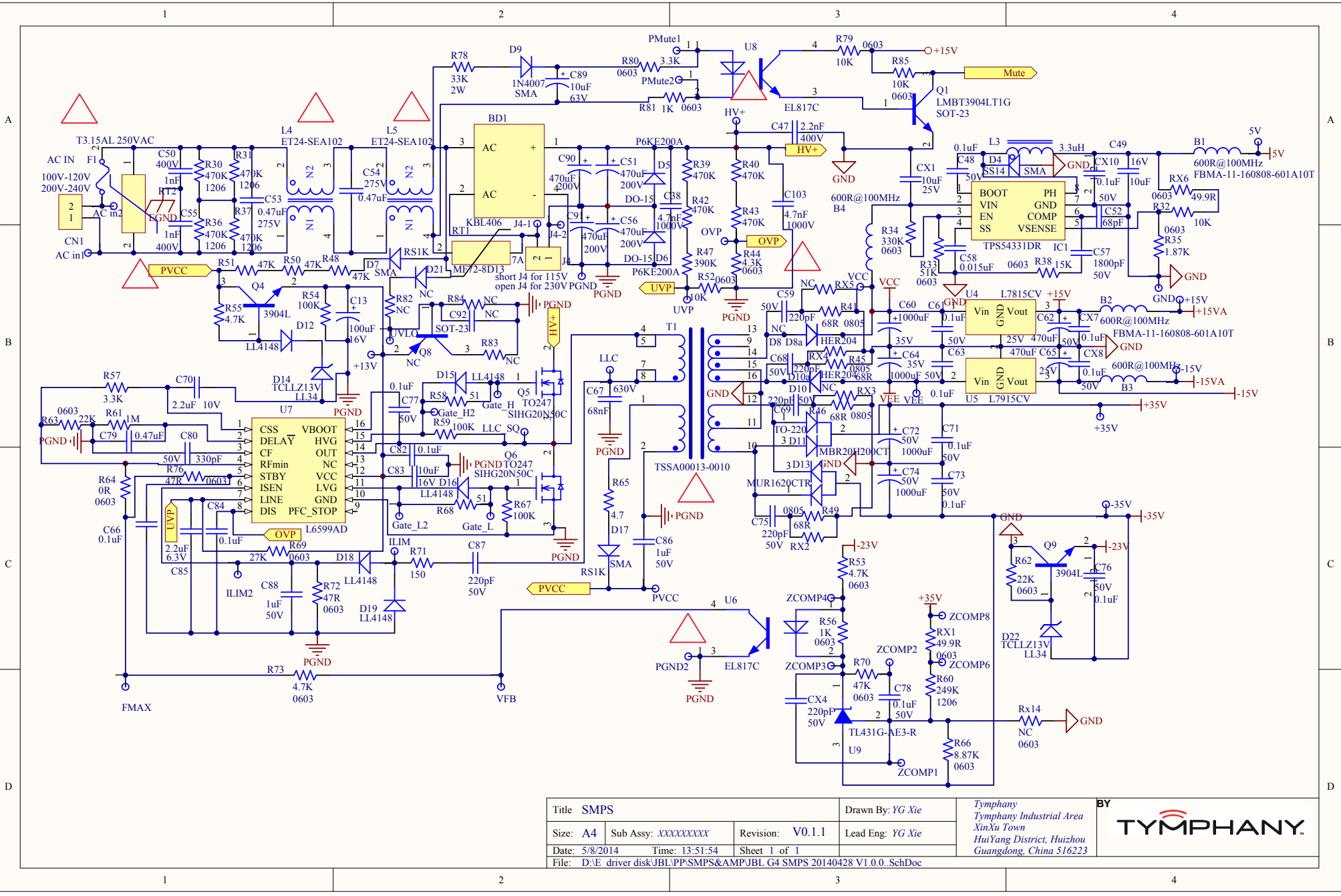
When BTM music stream presents, set CODEC_SP as slave, otherwise set CODEC_SP as Master




JBL Professional			
Title: EON 600			
Doc ID: D	Page: Codec and Power management.SchDoc	Rev: D	Rev: D
Date: Apr 28, 2014	Engineer: Wu Song		
Filename: Codec and Power Management.SchDoc	Sheet: 7	of 7	



Title Power amp		Drawn By: YG.Xie		Tymphony Tymphony Industrial Area XinXu Town HuiYang District, Huizhou Guangdong, China 516223	
Size: A4	Sub Assy: XXXXXXXXX	Revision: V0.1.1	Lead Eng: YG.Xie	BY 	
Date: 5/8/2014	Time: 13:51:54	Sheet 1 of 1			
File: D:\E driver disk\JBL\PP\SMPS&\JBL G4 AMP 20140428 V1.0.0.SchDoc					



Title SMPS		Drawn By: YG Xie		Tymphony Tymphony Industrial Area XinXu Town HuiYang District, Huizhou Guangdong, China 516223	
Size: A4	Sub Assy: XXXXXXXX	Revision: V0.1.1	Lead Eng: YG Xie	BY 	
Date: 5/8/2014	Time: 13:51:54	Sheet 1 of 1			
File: D:\E driver disk\JBL\PP\SMPS&\JBL G4 SMPS 20140428 V1.0.0_SchDoc					