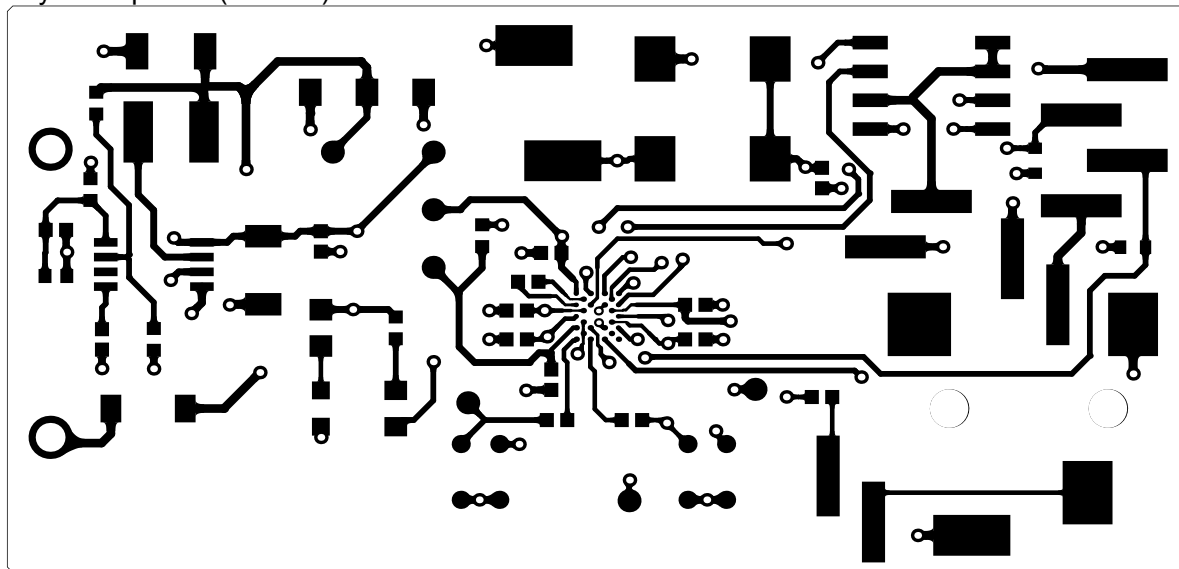
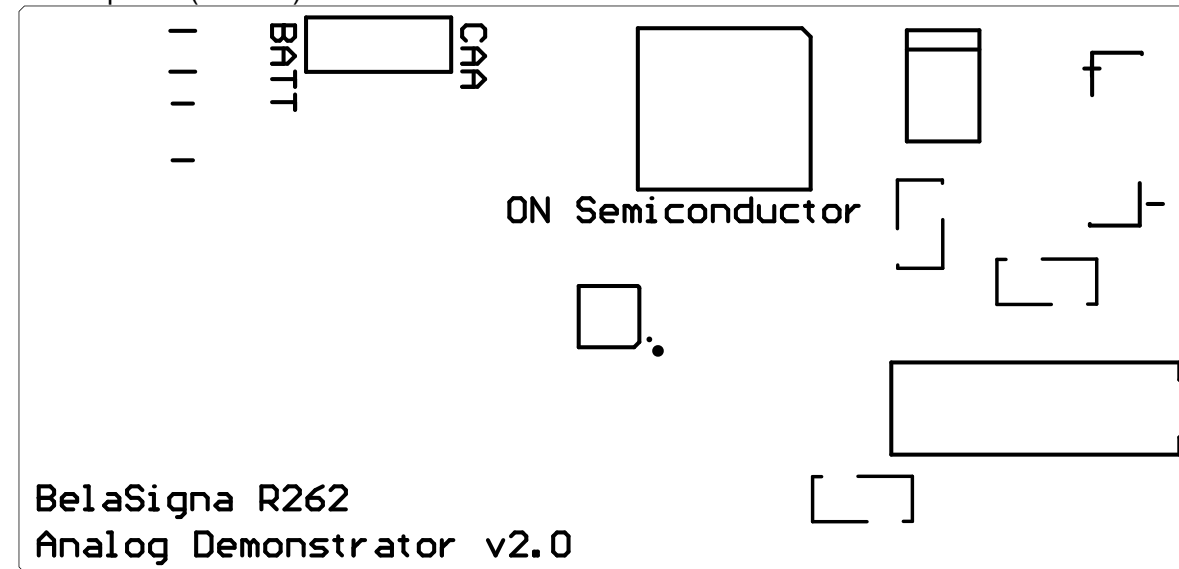


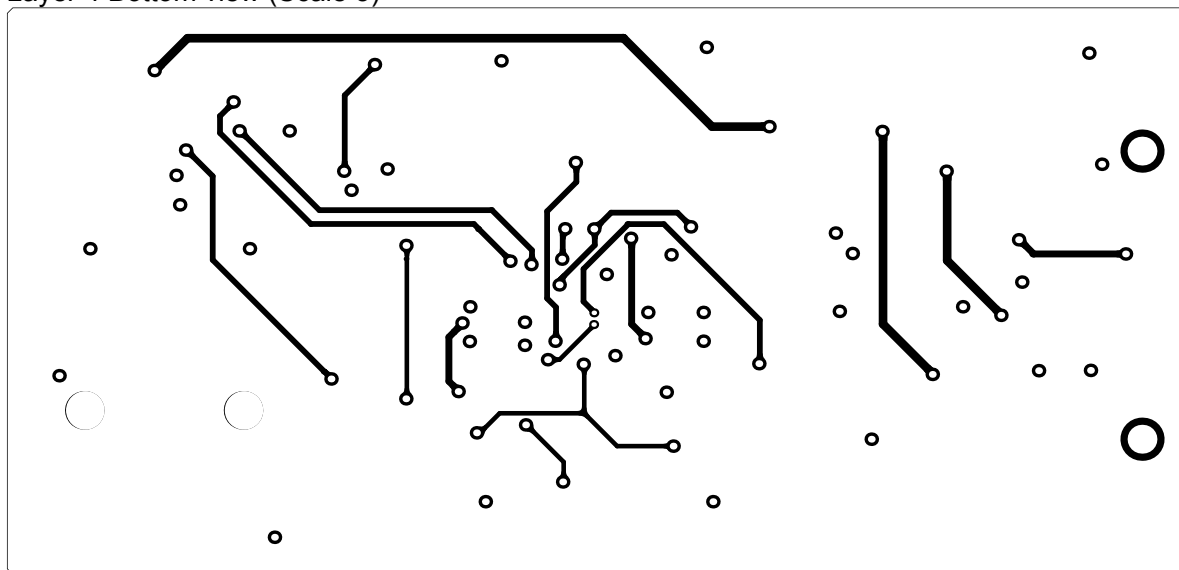
Layer 1 top view (Scale 3)



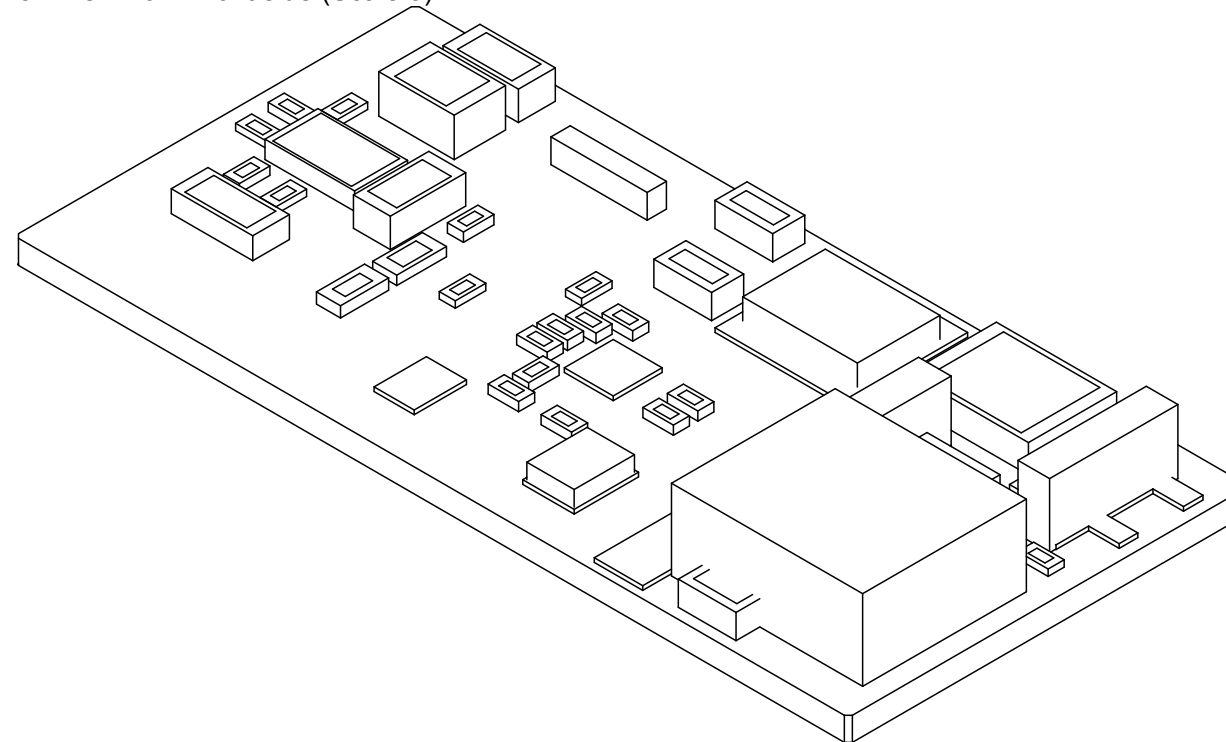
Print top side (Scale 3)



Layer 4 Bottom view (Scale 3)

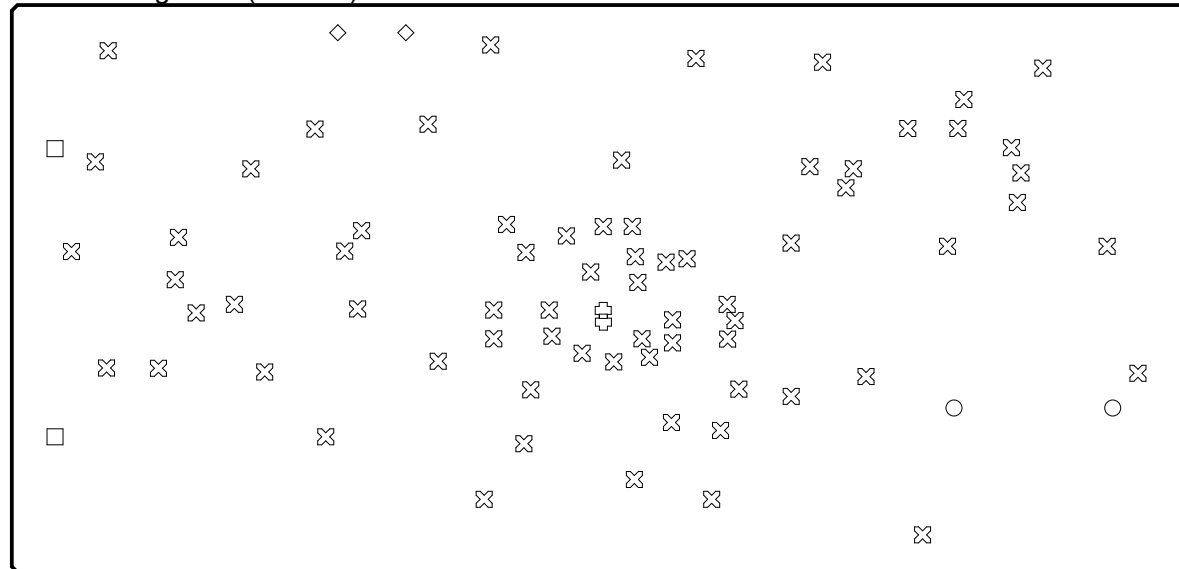


3D view from Front side (Scale 3)



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DRAW		NAME		SIGNATURE		DATA		TITLE:	
CHK'D								Analog Demo	
APPV'D									
MFG									
QA									
						MATERIAL:		DWG NO.	
						WEIGHT:		SCALE 1:1	
								SHEET 1 OF 4	
								A0	

Drill Drawing View (Scale 3)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
⊕	2	0.20mm	Plated	None
⊗	70	0.30mm	Plated	None
◇	2	0.85mm	Non-Plated	None
□	2	1.27mm	Plated	None
○	2	1.70mm	Non-Plated	None
	78 Total			

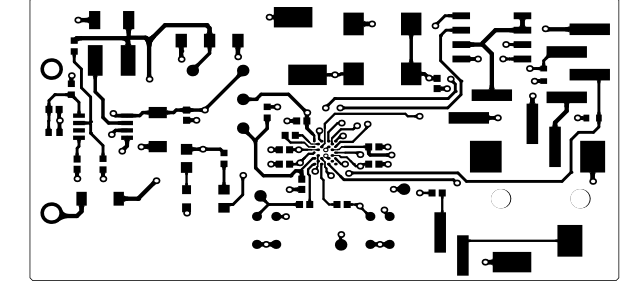
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS SURFACE FINISH: TOLERANCES:				FINISH:		DEBURR AND BREAK SHARP EDGES		DO NOT SCALE DRAWING		REVISION	
		NAME		SIGNATURE		DATA				TITLE:	
DRAW		BSA								Analog Demo	
CHK'D											
APP'VD											
MFG											
QA								MATERIAL:		DWG NO.	
										A0	
								WEIGHT:		SCALE 1:1	
										SHEET 2 OF 4	

Layer Stack Legend

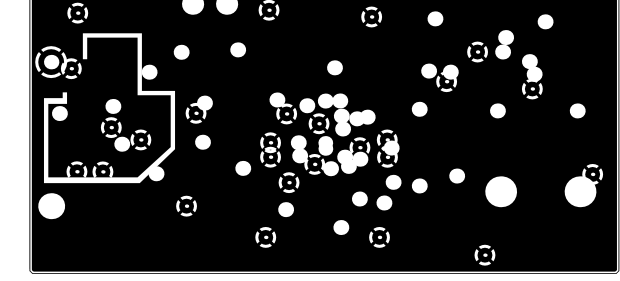
Material	Layer	Thickness	Dielectric Material	Type	Gerber
Top Paste				Paste Mask	GTP
Top Overlay				Legend	GTO
Surface Material	Top Solder	0.01mm	Solder Resist	Solder Mask	GTS
Copper	Layer 1	0.02mm		Signal	GTL
Prepreg		0.08mm	2 x Pre-preg 1080	Dielectric	
Copper	Layer 2	0.04mm		Internal Plane	GP1
Core		1.20mm	Core	Dielectric	
Copper	Layer 3	0.04mm		Internal Plane	GP2
Prepreg		0.08mm	2 x Pre-preg 1080	Dielectric	
Copper	Layer 4	0.02mm		Signal	GBL
Surface Material	Bottom Solder	0.01mm	Solder Resist	Solder Mask	GBS
Bottom Paste				Paste Mask	GBP

Total thickness: 1.48mm

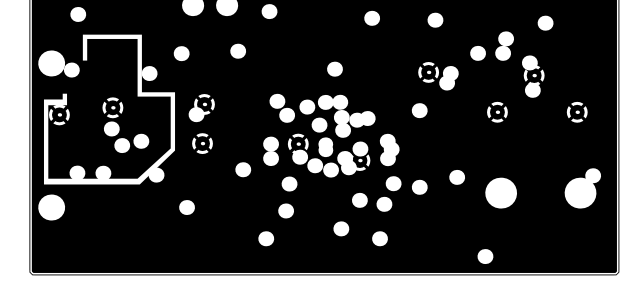
Layer 1 (Scale 1.5)



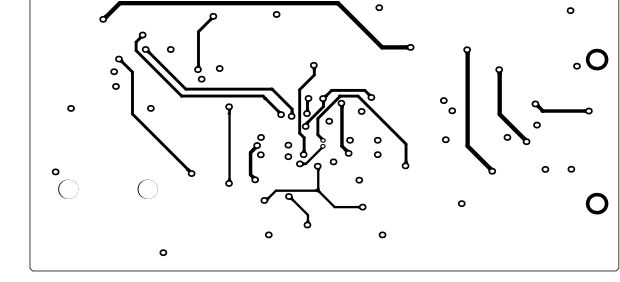
Layer 2 (Scale 1.5)



Layer 3 (Scale 1.5)



Layer 4 bottom view (Scale 1.5)

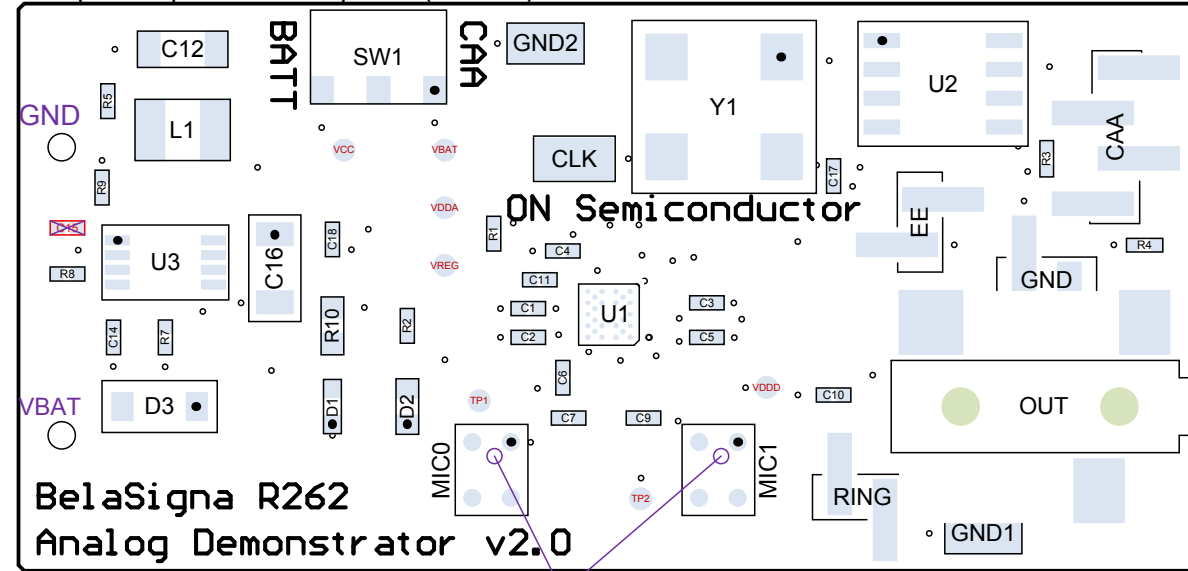


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DRAW				NAME		SIGNATURE		DATA		TITLE:	
CHK'D										Analog Demo	
APPV'D											
MFG											
QA											
								MATERIAL:		DWG NO.	
								WEIGHT:		SCALE 1:1	
										SHEET 3 OF 4	
										A0	

Supply VBAT to GND is nominal 3.3V (Tol.: 1.65Vdc to 3.6Vdc)

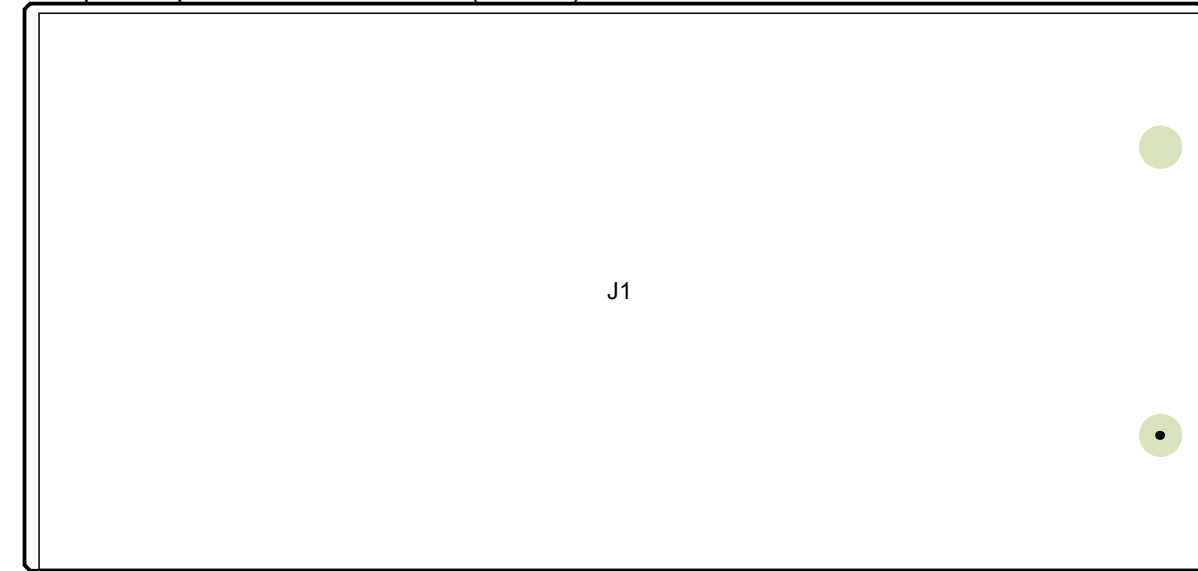
Test points:  
 VDDA to GND is nominal 2.0Vdc (Tol.: 1.8Vdc to 2.1 Vdc)  
 VDDD to GND is nominal 1.7 Vdc (Tol.: 1.62 to 1.98 Vdc)  
 VREG to GND is nominal 1.0 Vdc (Tol.: 0.95Vdc to 1.05Vdc)

Component placement Top side (Scale 3)



Microphone spout position

Component placement Bottom side (Scale 3)



Bill of Materials

Designator	Part Number	Description	Quantity	Supplier	Supplier Part Number
C1, C2, C3, C5, C6	GRM155R61A105ME15D	CAP CER 1UF 10V X5R 0402	5	Digikey	490-5409-1-ND
C4	C1005X5R1A475K050BC	CAP CER 4.7UF 6.3V X5R 0402	1	Digikey	445-13820-1-ND
C7, C9	UMK105B7103KV-F	CAP CER 10NF 50V X7R 0402	2	Digikey	587-2238-1-ND
C10	C1005X5R1A225K	CAP CER 2.2UF 10V X5R 0402	1	Digikey	445-7392-1-ND
C11, C17, C18	TMK105BJ104KV-F	CAP CER 0.1UF 25V X5R 0402	3	Digikey	587-1456-1-ND
C12, C16	C3216X5R1C336M	CAP CER 33UF 16V X5R 1206	1	Digikey	445-6002-1-ND
C14	C1005X7R1C154K	CAP CER 0.15UF 16V X7R 0402	1	Digikey	445-5934-1-ND
C15	C0402_DNI	do not insert	1	-	-
CAA	TMM-104-01-S-S-SM-TR	CONN HEADER 4POS SINGL 2MM SMD	1	Digikey	TMM-104-01-S-S-SM-TR-ND
CLK, GND1, GND2	5015	PC TEST POINT MINIATURE SMT	3	Digikey	36-5015CT-ND
D1	LNJ326W83RA	LED GREEN 0603 SMD	1	Digikey	P13485CT-ND
D2	LNJ926W8CRA	LED BLUE 0603 SMD	1	Digikey	P13484CT-ND
D3	MBR0520-TP	DIODE SCHOTTKY 20V 500MA SOD123	1	Digikey	MBR0520TPMSCT-ND
EE, GND, RING	TMM-102-01-S-S-SM	CONN HEADER 2POS SINGL 2MM SMD	3	Digikey	SAM1170-02-ND
J1	BH2AAA-PC	HOLDER BATT 2-AAA CELLS PC MOUNT	1	Digikey	BH2AAA-PC-ND
L1	B82422H1223K000	FIXED IND 22UH 330MA 1 OHM SMD	1	Digikey	495-2644-1-ND
MIC0, MIC1	SPU0410HR5H-PB	MIC MEMS ANALOG OMNI -42DB	2	Digikey	423-1138-1-ND
OUT	SJ-3523-SMT	CONN JACK STEREO 3.5MM SMD R/A	1	Digikey	CP-3523SUCT-ND
R1,R3,R4	RC0402FR-0710KL	RES SMD 10K OHM 1% 1/16W 0402	1	Digikey	311-10.0KLRCT-ND
R2	RC0402FR-07100RL	RES SMD 100 OHM 1% 1/16W 0402	1	Digikey	311-100LRCT-ND
R6	CRCW0402560KFKED	RES SMD 560K OHM 1% 1/16W 0402	1	Digikey	541-560KLCT-ND
R7	CRCW0402330KFKED	RES SMD 330K OHM 1% 1/5W 0402	1	Digikey	541-330KYCT-ND
R8	ERJ-2RKf3903X	RES SMD 390K OHM 1% 1/10W 0402	1	Digikey	P390KLCT-ND
R5, R9	RC0402FR-07220KL	RES SMD 220K OHM 1% 1/16W 0402	1	Digikey	311-220KLRCT-ND
R10	ERJ-3GEYJ821V	RES SMD 820 OHM 5% 1/10W 0603	1	Digikey	P820GCT-ND
SW1	AYZ0102AGRLC	SWITCH SLIDE SPDT 100MA 12V	1	Digikey	401-2012-1-ND
U1	BR262W30A103E1G	ON Semiconductor Audio DSP BR262	1	Sällberg	BR262W30A103E1G
U2	CAT25640VI-G	IC EEPROM 64KBIT 20MHZ 8SOIC	1	Digikey	CAT25640VI-GT3OSCT-ND
U3	NCP1421DMR2G	IC REG BOOST ADJ 250 mA SYNC 8MICRO	1	Digikey	NCP1421DMR2GOSCT-ND
Y1	FNGEPO002	OSCILLATOR XO 2.048MHZ CMOS SMD	1	Digikey	FNGEPO002CT-ND

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	NAME	SIGNATURE	DATA		TITLE:	
DRAW	BSA				Analog Demo	
CHK'D						
APP'VD						
MFG						
QA				MATERIAL:	DWG NO.	A0
				WEIGHT:	SCALE 1:1	SHEET 4 OF 4