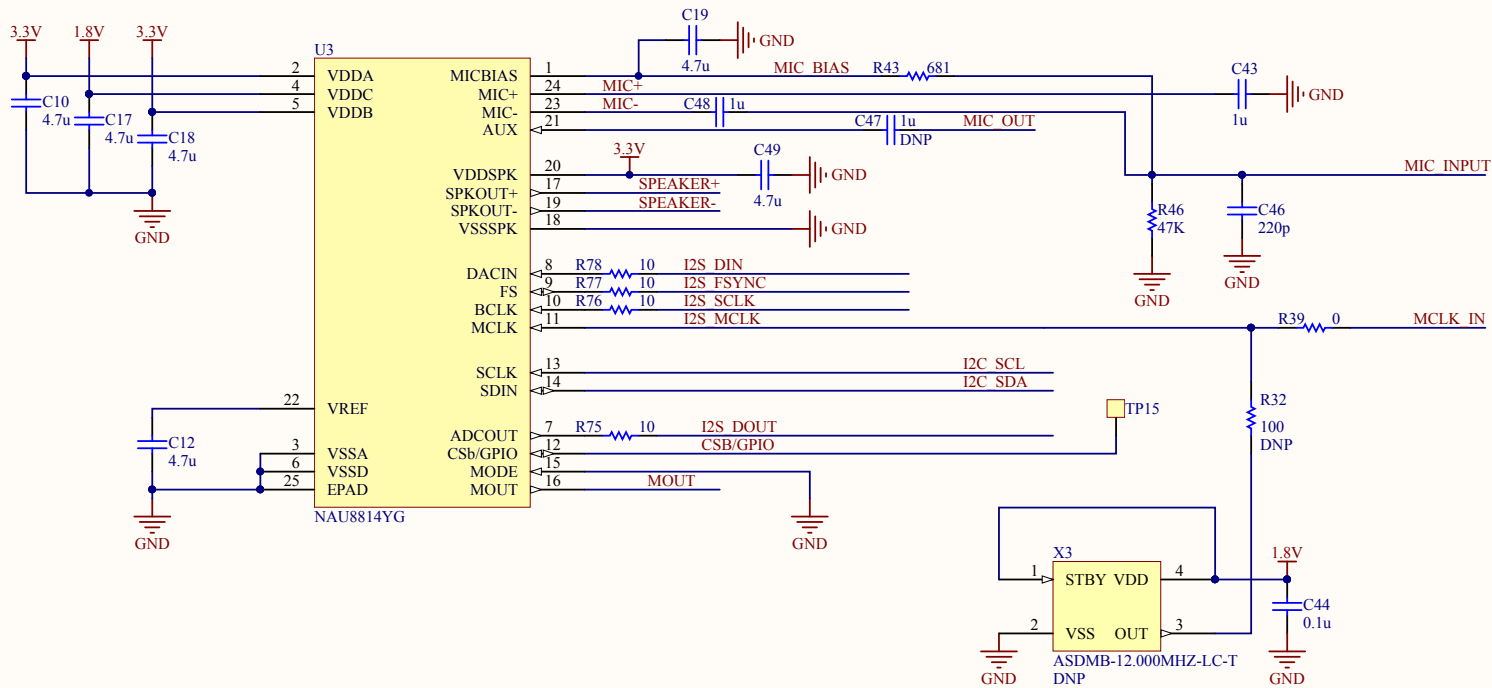


Hello		REV
TITLE ALS		DVT
DATE 11/13/2014	DRAWN BY D. Fusi	SHEET 2 OF 7



Hello

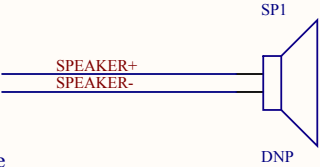
TITLE Codec		REV DVT
DATE 11/13/2014	DRAWN BY D. Fusi	SHEET 3 OF 7

	1	2	3	4
A				
B				
C				
D				
	1	2	3	4

max output current @ 5V = 15mA

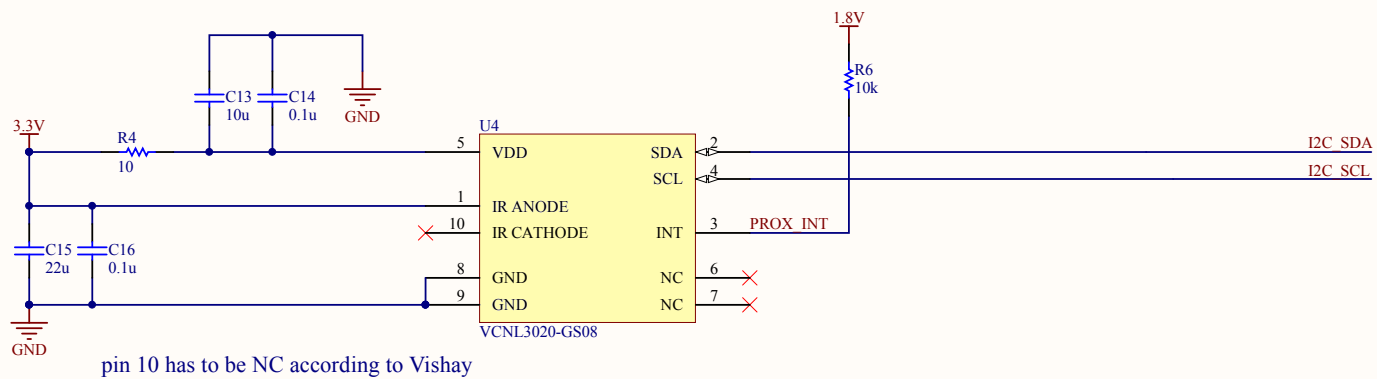
max speaker power = 500mW

max sp7.9 mA @ 8 ohm impedance



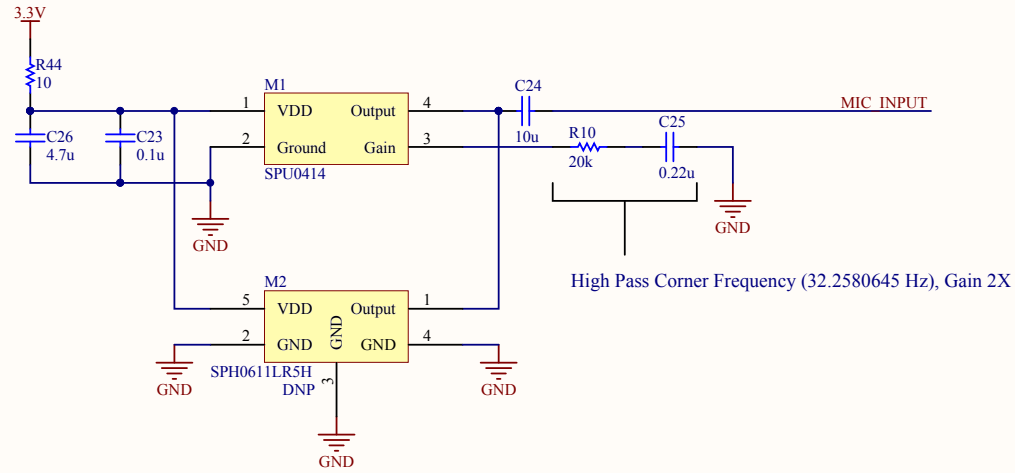
Hello

TITLE Speaker		REV DVT
DATE 10/10/2014	DRAWN BY D. Fusi	SHEET 4 OF 7



<h1>Hello</h1>		
TITLE	REV	
Proximity	DVT	
DATE	DRAWN BY	
11/13/2014	D. Fusi	SHEET 5 OF 7

M1 is top port mic, M2 is bottom port mic. Only one can be installed at a time



Hello		
TITLE	Microphone	REV
DATE	D. Fusi	DVT
11/13/2014		SHEET 6 OF 7

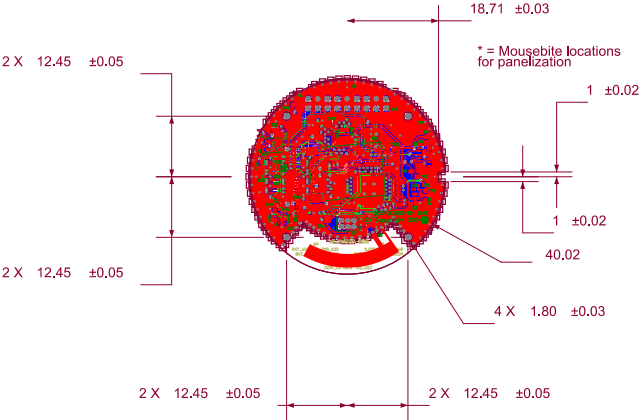
Fabrication / Assembly Notes


- 1. Material: Rigid FR-4, RoHS compliant: material should meet or exceed requirements of IPC 4101/129
- 2. Number of electrical layers: 4
- 3. Trace / Space minimum: 5mil (all layers)
- 4. Thickness: 0.786mm (finished)
- 5. Finish: ENIG plating on exposed copper
- 6. Soldermask: per IPC-SM-840, color matte black registration within +/- 50um of circuit layer
- 7. Silkscreens: do print silkscreen on top and bottom layers
- 8. Board must meet or exceed 94U-0
- 9. Board must be lead free process compatible and able to withstand minimum of 5 cycles at 250 degrees celsius
- 10. All Test/QA/QC markings to be made on back side of PCB
- 11. x mousebites shall be no larger than 0.05 mm
- 12. 0.25mm radius around sharp edges like the notch on the right side
- 13. All Dimensions are after plating/finishing
- 14. All components must be placed within +/- 0.10mm

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Paste				
2	Top Overlay				
3	Top Solder	Solder Resist	0.010mm	3.5	
4	TOP	Copper	0.036mm		
5	Dielectric1	FR-4	0.127mm	4.2	
6	SIG	Copper	0.017mm		
7	Dielectric3	FR-4	0.406mm	4.2	
8	GND	Copper	0.017mm		
9	Dielectric2	FR-4	0.127mm	4.2	
10	BOT	Copper	0.036mm		
11	Bottom Solder	Solder Resist	0.010mm	3.5	
12	Bottom Overlay				
13	Bottom Paste				

Symbol	Hit Count	Finished Hole Size	Plated	Hole Type
o	1	0.325mm (12.80mil)	PTH	Round
●	1	0.700mm (27.56mil)	PTH	Round
▼	1	0.900mm (35.43mil)	PTH	Round
▽	4	0.381mm (15.00mil)	PTH	Round
■	4	1.700mm (66.93mil)	PTH	Round
◦	6	0.600mm (23.62mil)	PTH	Round
⊗	18	0.813mm (32.00mil)	PTH	Round
⊙	88	0.200mm (7.87mil)	PTH	Round
*	189	0.305mm (12.01mil)	PTH	Round
312 Total				

TOP Layer 1oz Cu
SIG Layer 5 mil Drilling 0.5oz Cu
GND Layer 16 mil Core 31 +/- 0.1 mils
BOT Layer 5 mil Drilling 0.5oz Cu
1oz Cu



METRIC		DRAWN	DATE		
DIMENSIONS ARE IN MILLIMETERS		DESIGNER	DATE		
TOLERANCES:		rsb/dyke/dfusi	11/17/14	TITLE:	
0 > - < 2 0.05		PROPRIETARY AND CONFIDENTIAL		Morpheus Top Board	
2 > - < 10 0.08					
10 > - < 50 0.10					
50 > - < 100 0.15					
100 > - < 200 0.20					
200 > - 0.20		ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF HELLO INC IS PROHIBITED.		SIZE	
ANGLES 1.00				DWG. NO.	
				REV	
				201-00003-04	
				SCALE: 2:1	
				WEIGHT:	
				SHEET 1 OF 1	