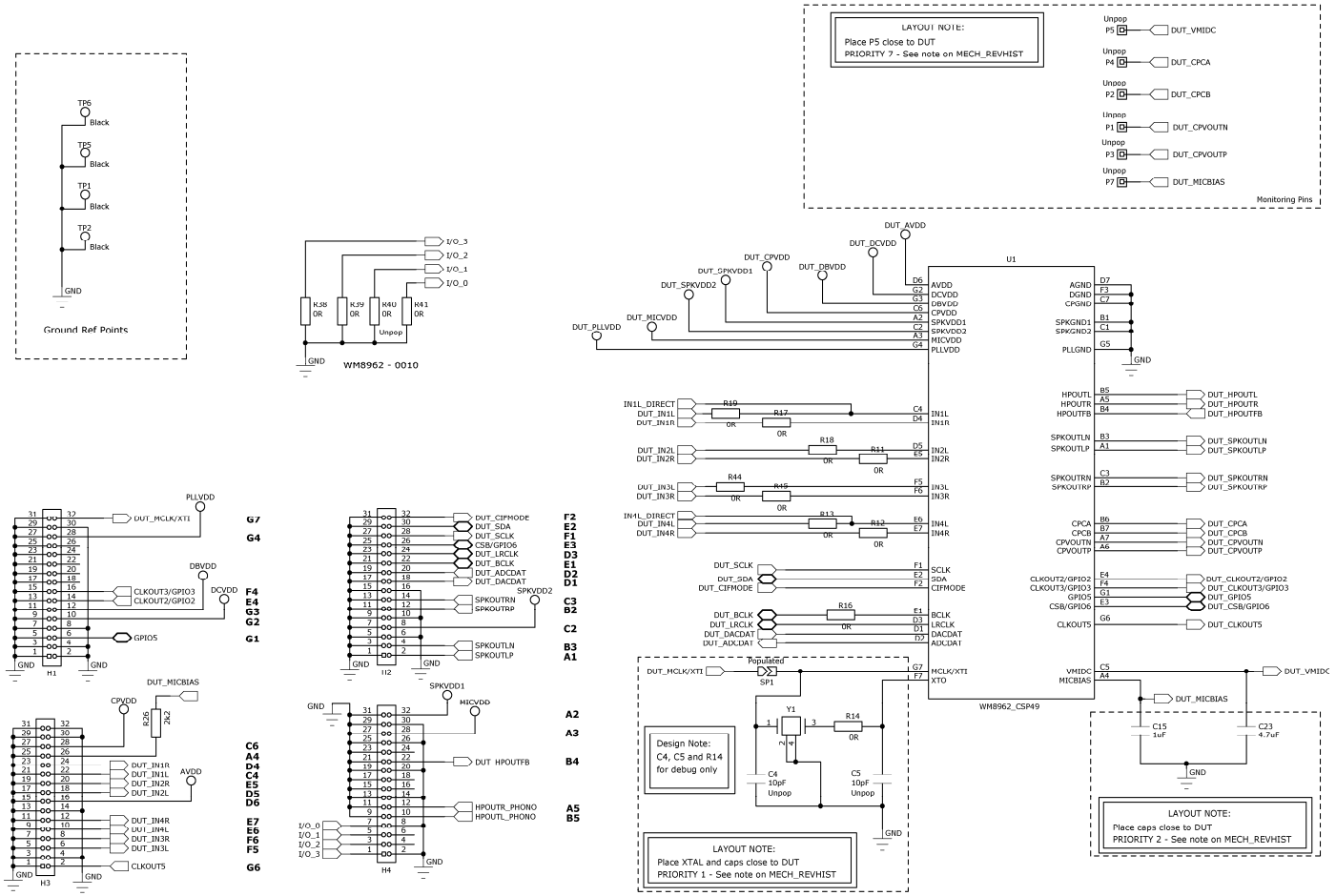
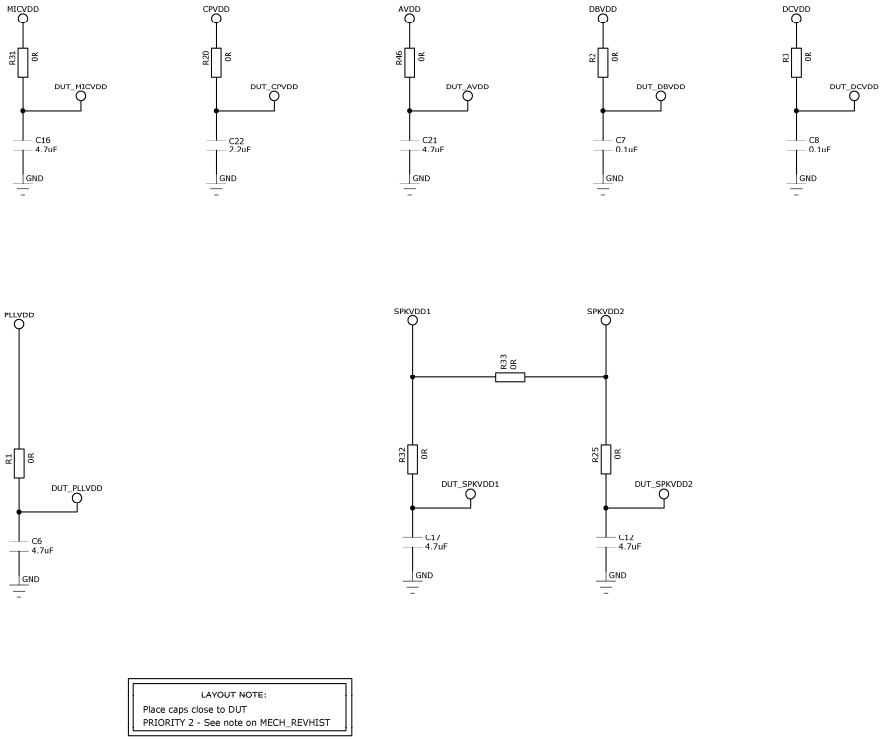
DOC TYPE:	SCHEMATIC AND LAYOUT
BOARD REFERENCE:	WM8962-6243-CS49-M-REV2
BOARD TYPE:	Customer Mini
WOLFSON DEVICE(S):	WM8962
DATE:	June 2010
DOC REVISION:	Rev 1.1

SCHEMATIC

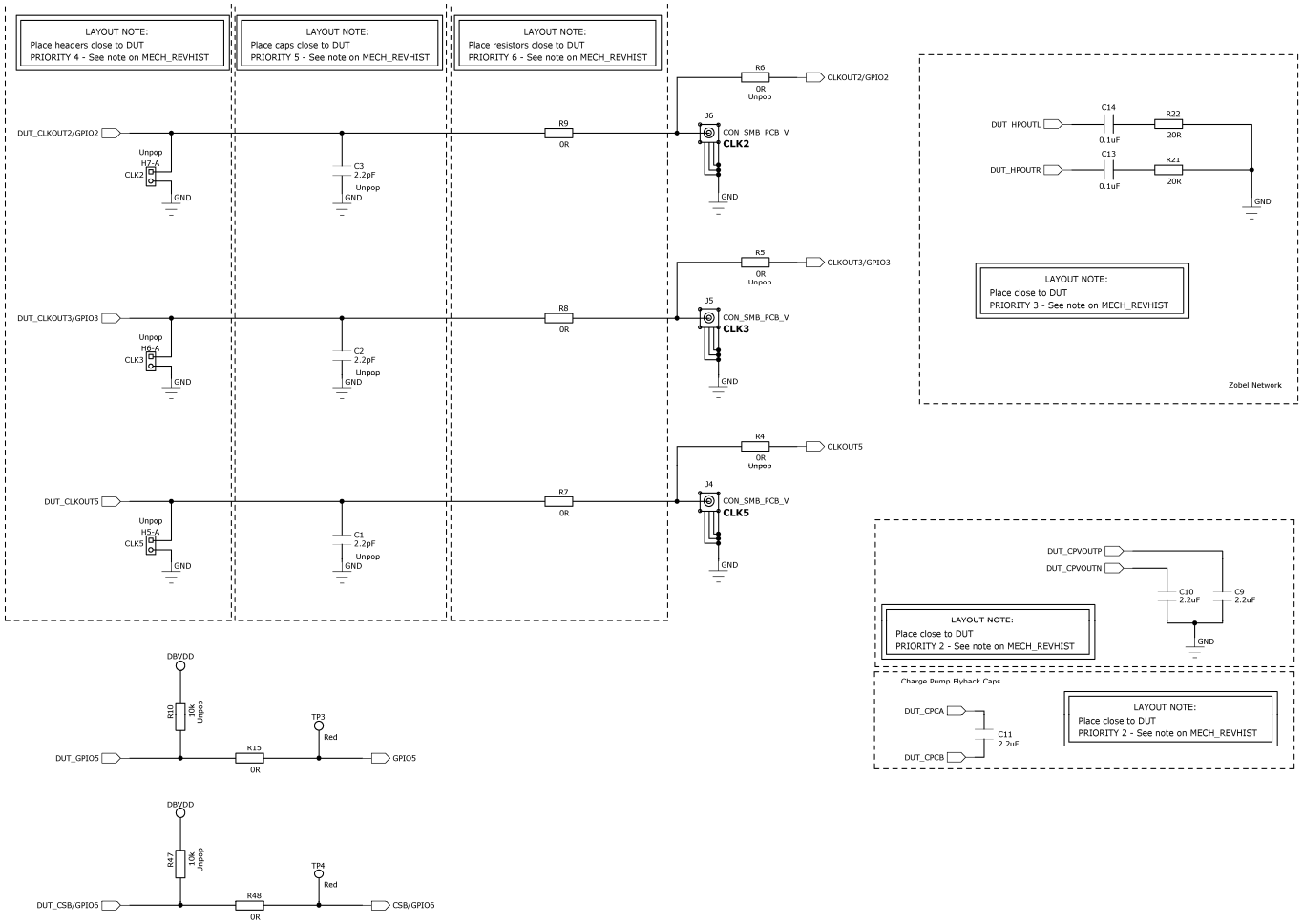
Sheet 1: WM8962



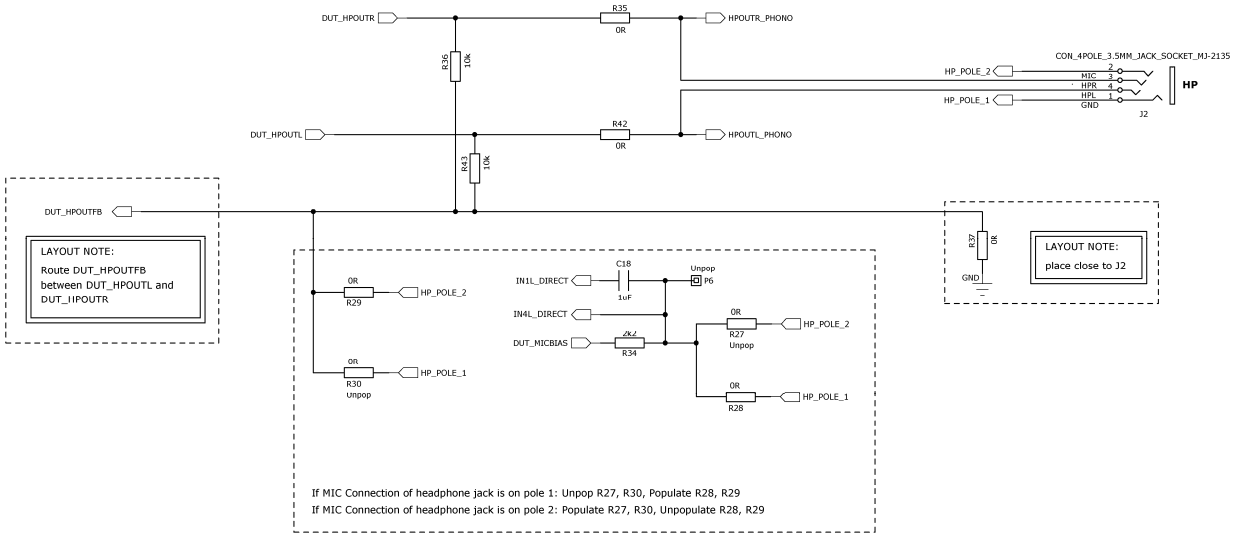
Sheet 2: Power



Sheet 3: Digital I/O

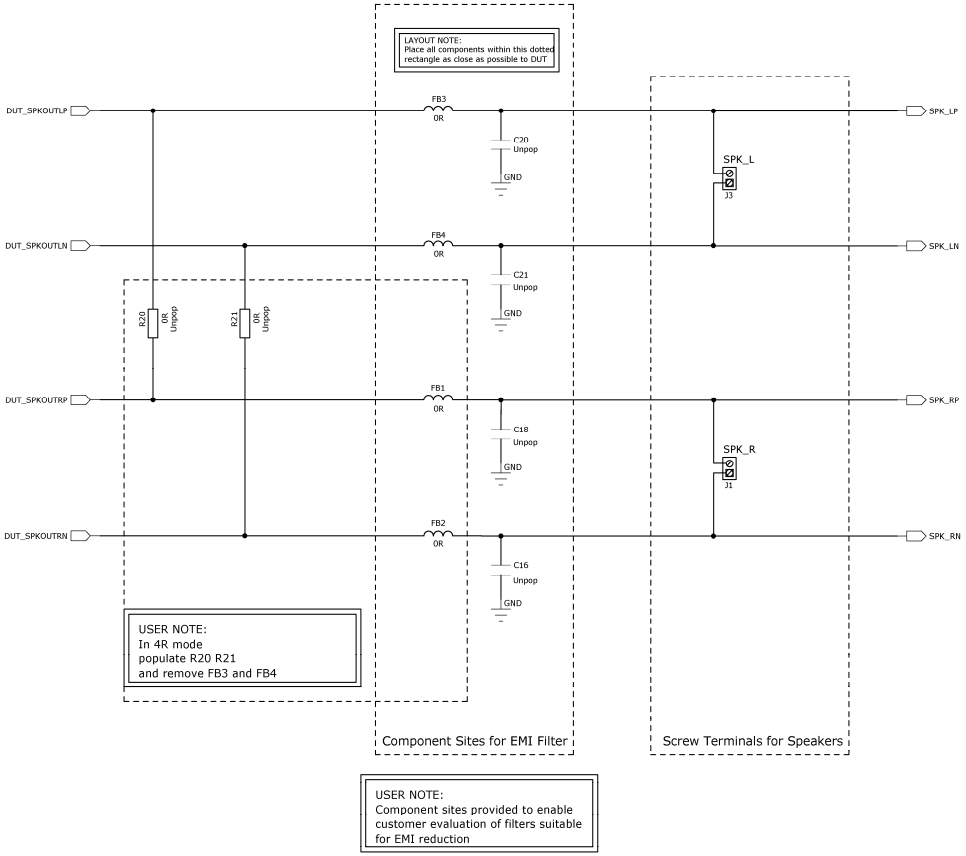


Sheet 4: Headphone Output



Please refer to Example Configuration document for microphone detect configuration examples

Sheet 5: Class D Speaker Output



Sheet 6: Reference Tables

REFERENCE TABLES

	Short	Open	
H7-B	CLKOUT2 Monitor	CLKOUT2 Monitor	
PCB Ref:	CLK2		No Fit

Unpop

	Short	Open	
H6-B	CLKOUT3 Monitor	CLKOUT3 Monitor	
PCB Ref:	CLK3		No Fit

Unpop

	Short	Open	
H5-B	CLKOUT5 Monitor	CLKOUT5 Monitor	
PCB Ref:	CLK5		No Fit

Unpop

Components to be placed close to DUT

PRIORITY 1 - XTAL and Caps C1, C2
PRIORITY 2 - Charge Pump caps, VMID & MICBIAS caps, decoupling caps
PRIORITY 3 - Zobel Network
PRIORITY 4 - CLKOUT Headers (scope points)
PRIORITY 5 - CLKOUT caps
PRIORITY 6 - CLKOUT termination resistors
PRIORITY 7 - VMID header P12

SHORTING POINT(S) CONFIGURATION

	SOLDERED	UN-SOLDERED
SP1	MCLK from external source	XTAL operation

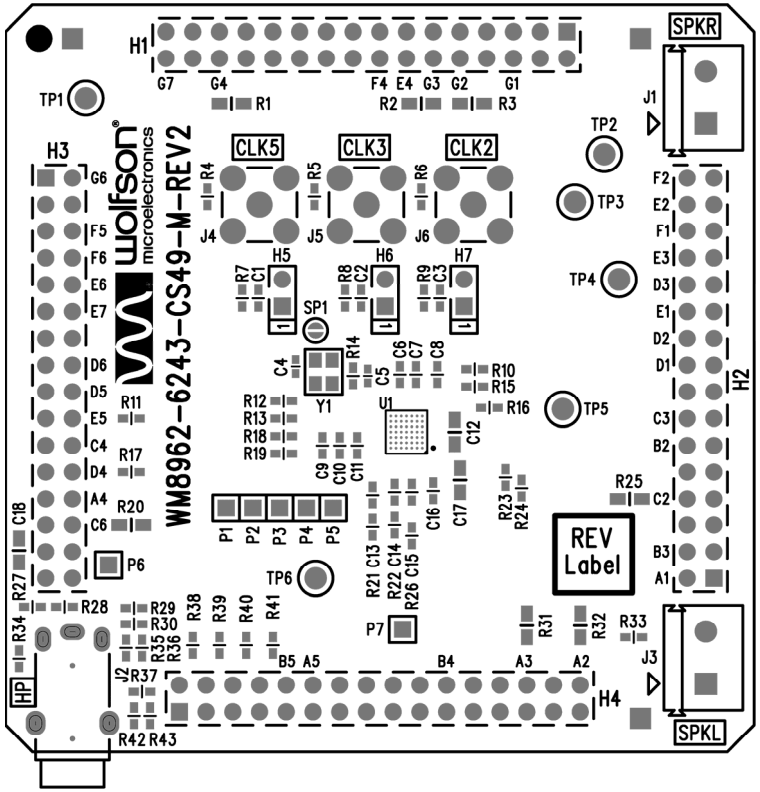
BILL OF MATERIALS (BOM)

Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
1	C9 C10 C22	2.2uF 0603 SMD Ceramic Capacitor 10V X5R	MuRata	GRM188R61A225KE34D
2	C11	2.2uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM185R60J225KE26D
3	C6 C16 C21 C23	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J475KE19D
4	J4 J5 J6	SMB Connector PCB Mount 50 Ohm VERTICAL	Amphenol	SMB1251B1-3GT30G-50
5	J1 J3	PCB mount 1X2 terminal block for 2.5mm wire guage	LUMBERG	KRM 02
6	J2	4 Pole 3.5mm Jack Socket Pro-Signal	Pro Signal	MJ-2135
7	MISC2	Lead-free label, 15mm round	Pro Power	7827260
8	C7 C8 C13 C14	0.1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	2238 786 15649
9	TP1 TP2 TP5 TP6	1.32mm PCB Test Terminal BLACK	Vero	20-2136
10	TP3 TP4	1.32mm PCB Test Terminal RED	Vero	20-313141
11	C12 C17	4.7uF 0805 SMD Ceramic Capacitor 16V X5R	Kemet	C0805C475K4PAC
12	R36 R43	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
13	R21 R22	20R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 20R
14	R26 R34	2k2 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 2K2
15	R7 R8 R9 R11 R12 R13 R14 R15 R16 R17 R18 R19 R28 R29 R33 R35 R37 R38 R39 R41 R42 R44 R45 R48	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
16	FB1 FB2 FB3 FB4	0R 0805 Resistor on 0805 Ferrite Bead site	Multicomp	MC 0.1W 0805 0R
17	R1 R2 R3 R20 R25 R31 R32 R46	0R 0805 SMD chip resistor 1% 0.1W	Multicomp	MC 0.1W 0805 0R
18	C18	1uF 0805 SMD Ceramic Capacitor 10V X7R	Multicomp	N0805R105KCT
19	C15	1uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J105KA01D
20	Y1	XTAL 24.000MHz 9pF SM TSX-3225	EPSON TOYOCOM	TSX-3225, 24.00MHz, 10ppm, 9pf
21	H1 H2 H3 H4	2x16 2.54mm pitch PCB SSQ Series Samtec Pin Socket VERTICAL PTH	Samtec	SSQ-116-04-G-D
22	PCB1	PCB	Kelan Circuits Ltd	WM8962-6243-CS49-M-REV2

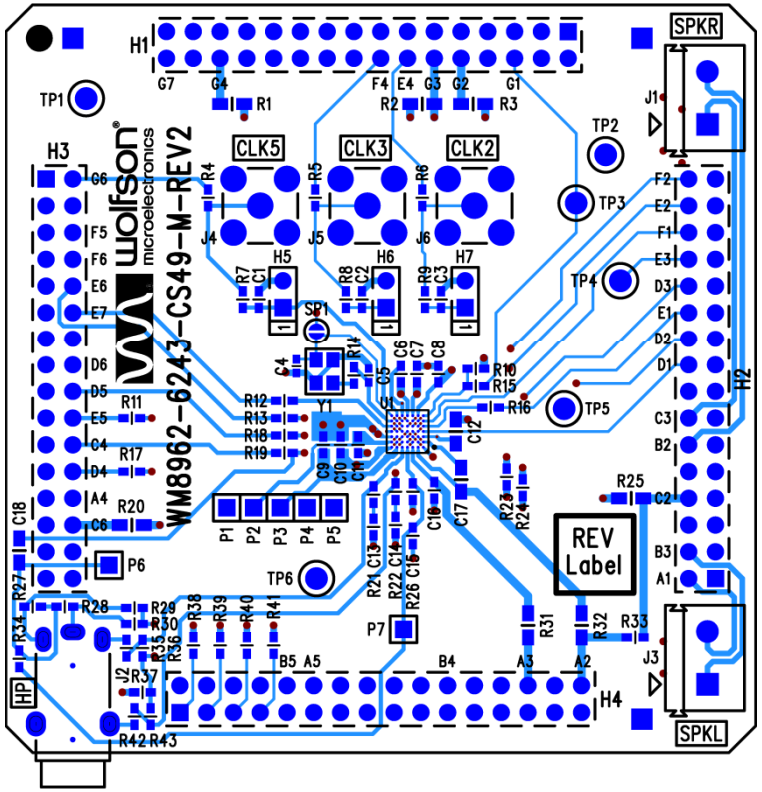
BILL OF MATERIALS (BOM)

Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
23	U1	WM8962 Low Power Stereo codec for Portable Digital Audio Applications	Wolfson Microelectronics Ltd	WM8962CS
24	SP1	Surface mount shorting point	N/A	N/A
Unpop				
25	H5 H6 H7	1x2 PCB Pin Header 0.1" VERTICAL	Harwin	M20-9990245
26	P1 P2 P3 P4 P5 P6 P7	1x1 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9990245
27	C4 C5	10pF 0402 SMD Ceramic Capacitor 50V NPO	Kemet	C0402C100J5GAC
28	C1 C2 C3	2.2pF 0603 SMD Ceramic Capacitor 50V NPO	Phycomp	223886715228
29	C19 C20 C24 C25	22pF 0603 SMD Ceramic Capacitor 50V NPO	Phycomp	2238 867 15229
30	R10 R47	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
31	R4 R5 R6 R23 R24 R27 R30 R40	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R

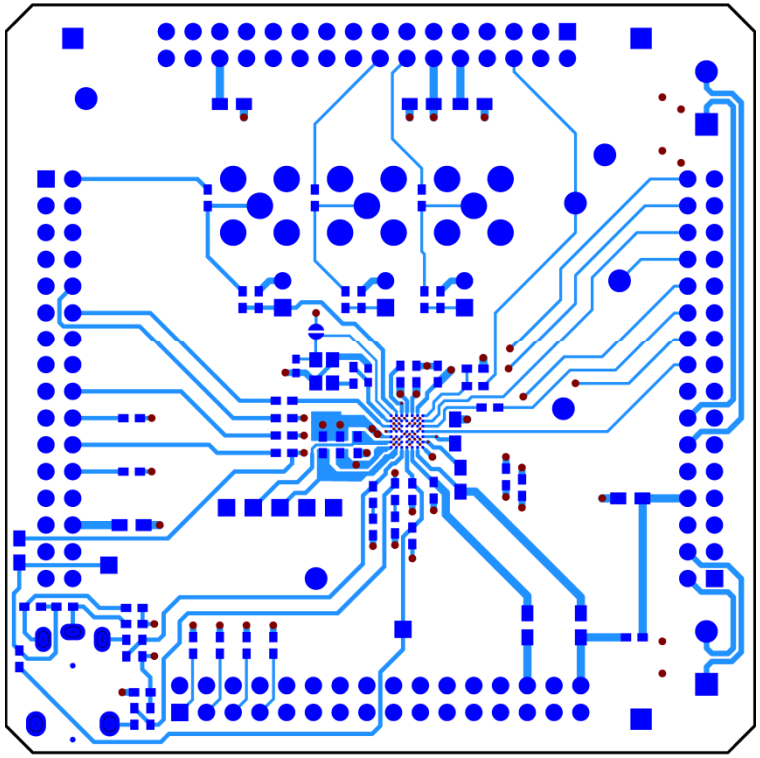
PCB LAYOUT



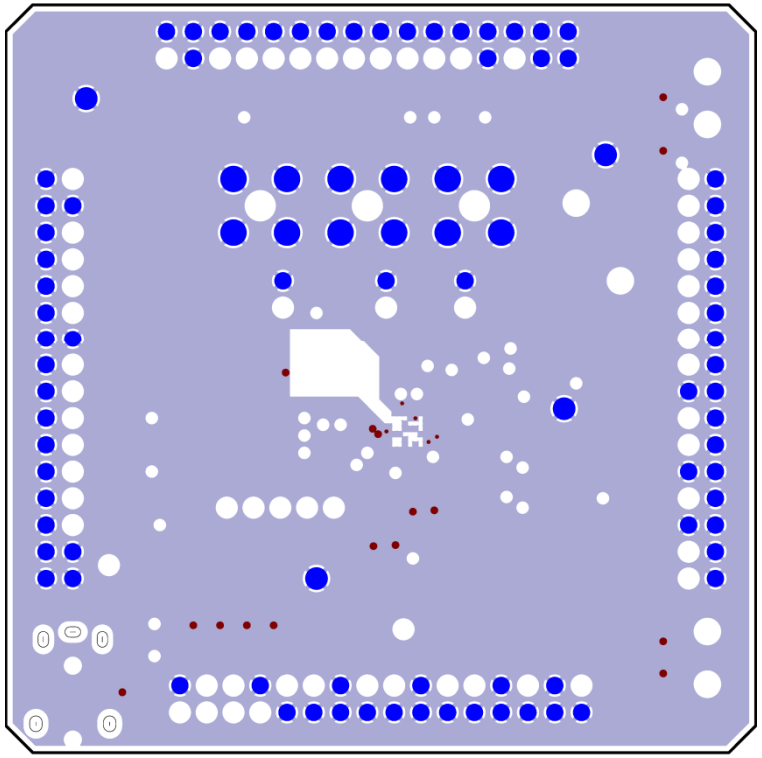
Top Layer: Overview



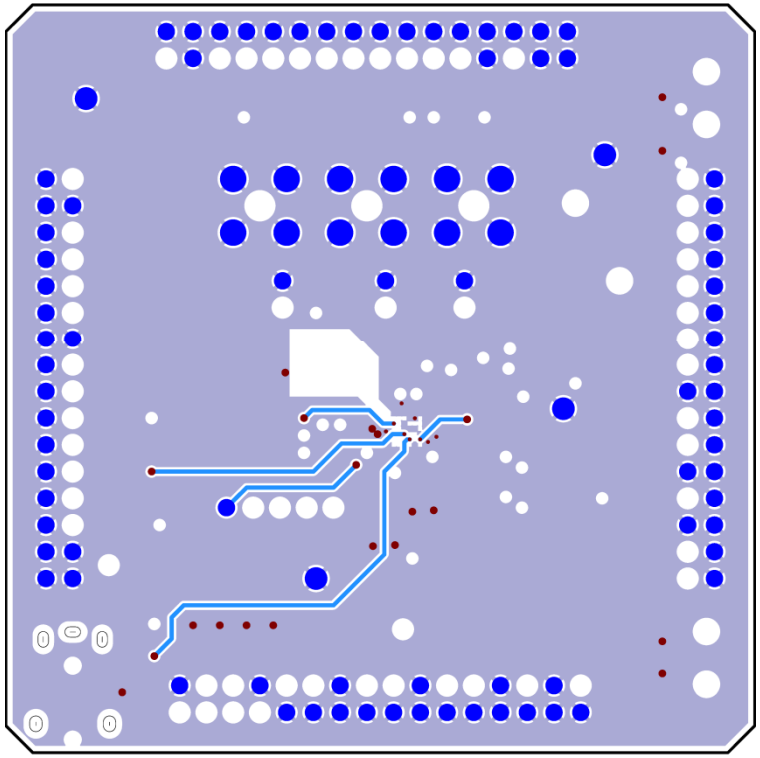
Top Layer: Silkscreen + Copper



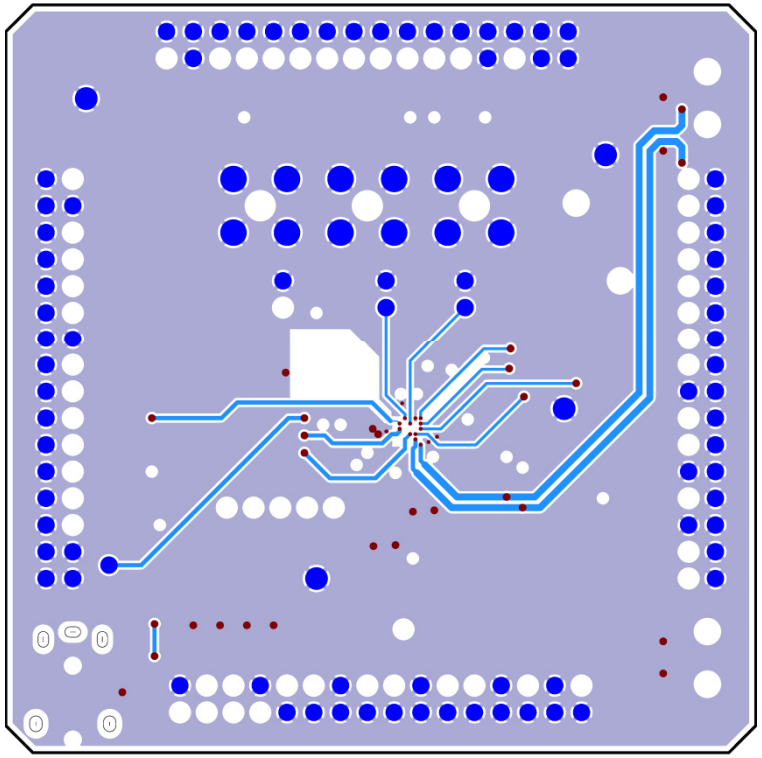
Top Layer: Copper



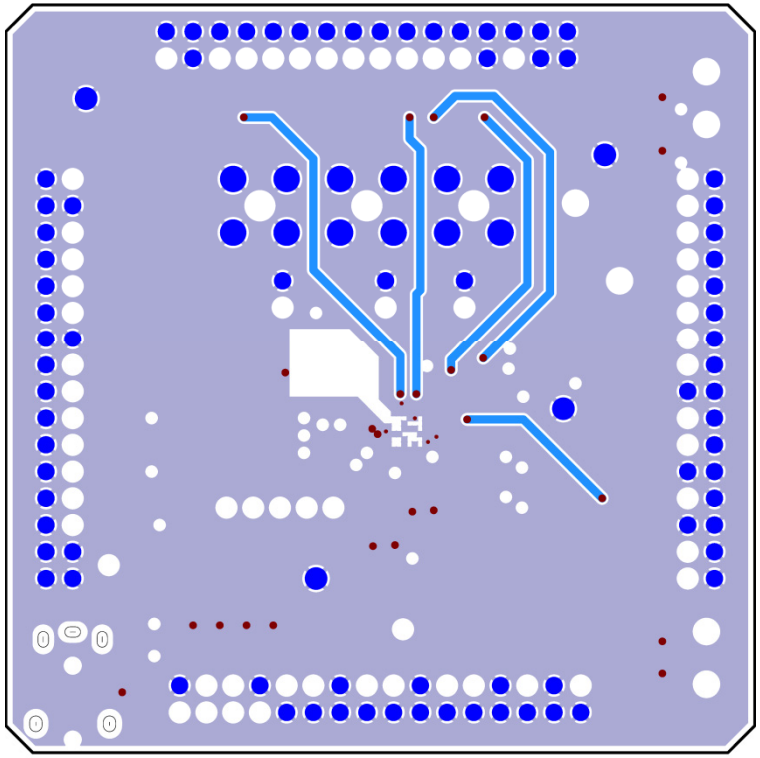
Layer 2: Copper



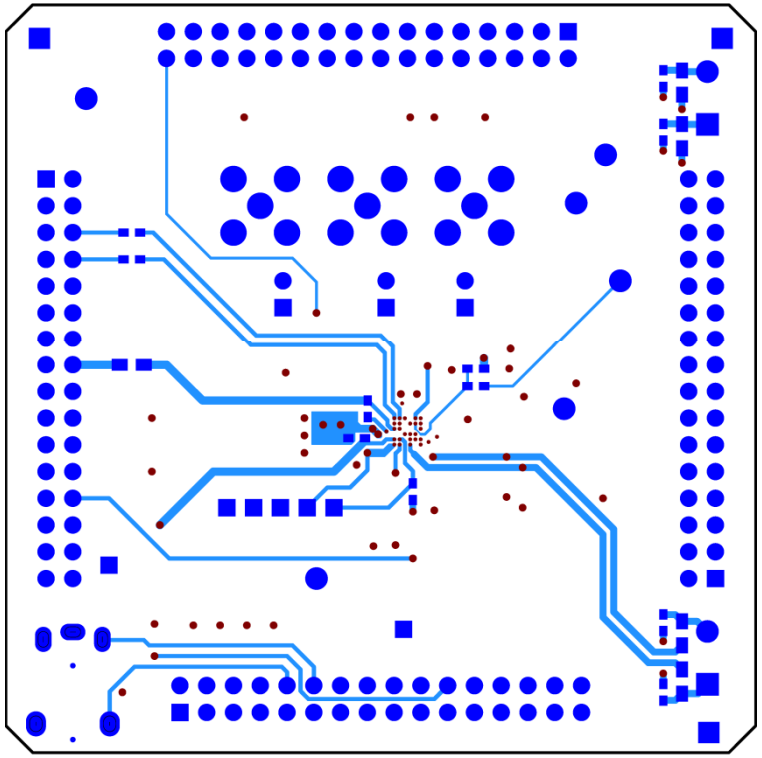
Layer 3: Copper



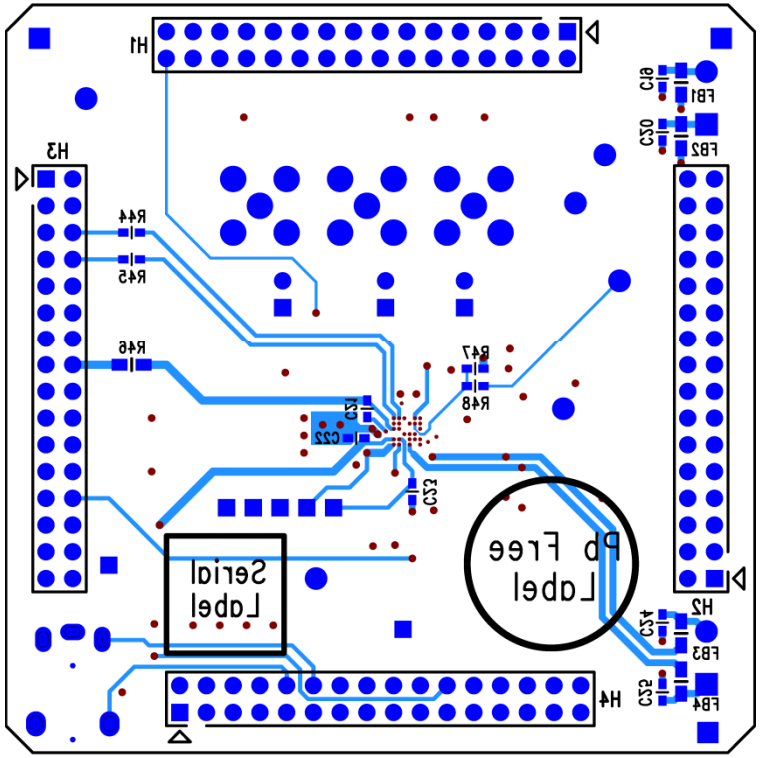
Layer 4: Copper



Layer 5: Copper



Bottom Layer: Copper



Bottom Layer: Silkscreen + Copper

APPLICATION SUPPORT

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or contact your local Wolfson representative.

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