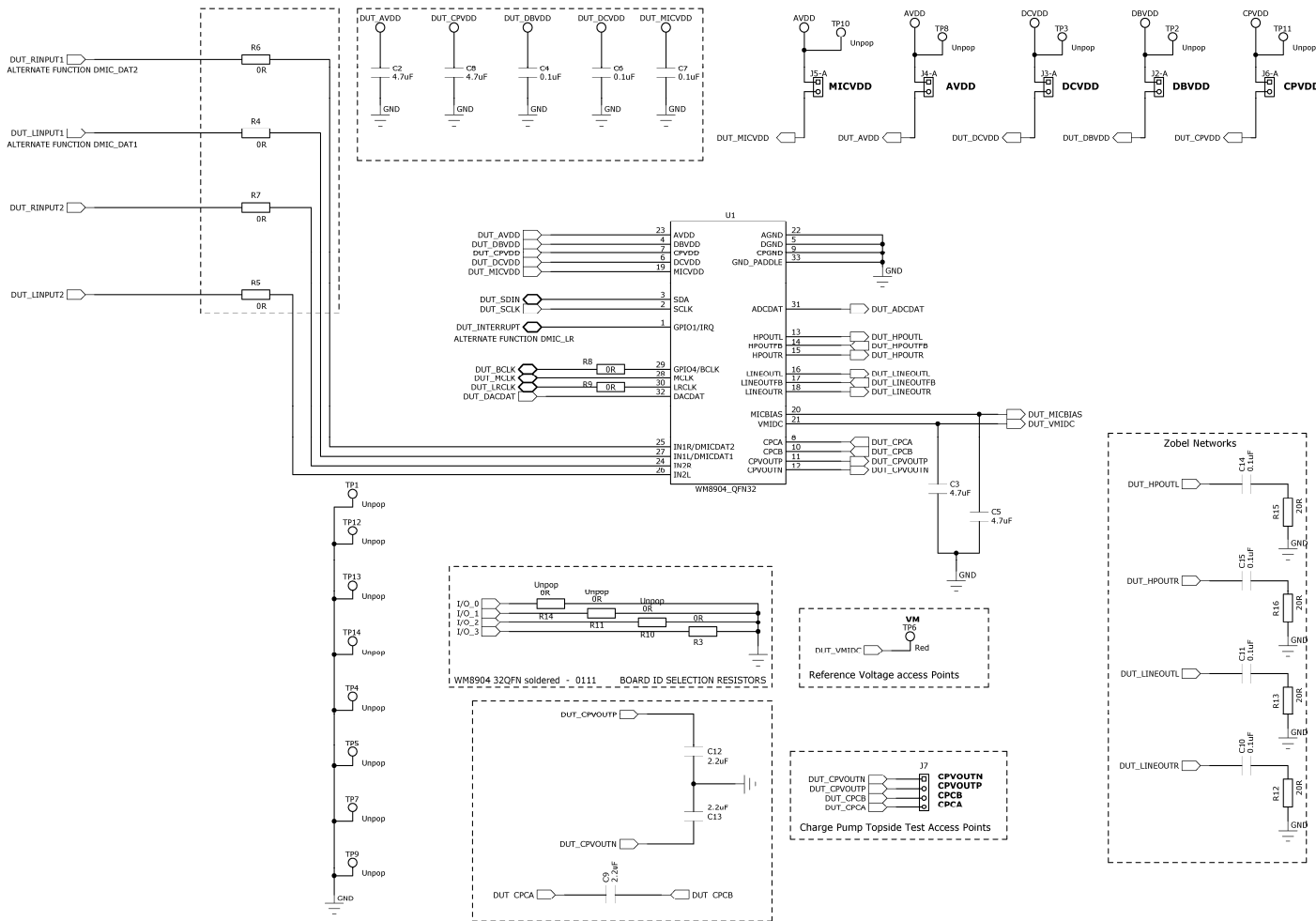


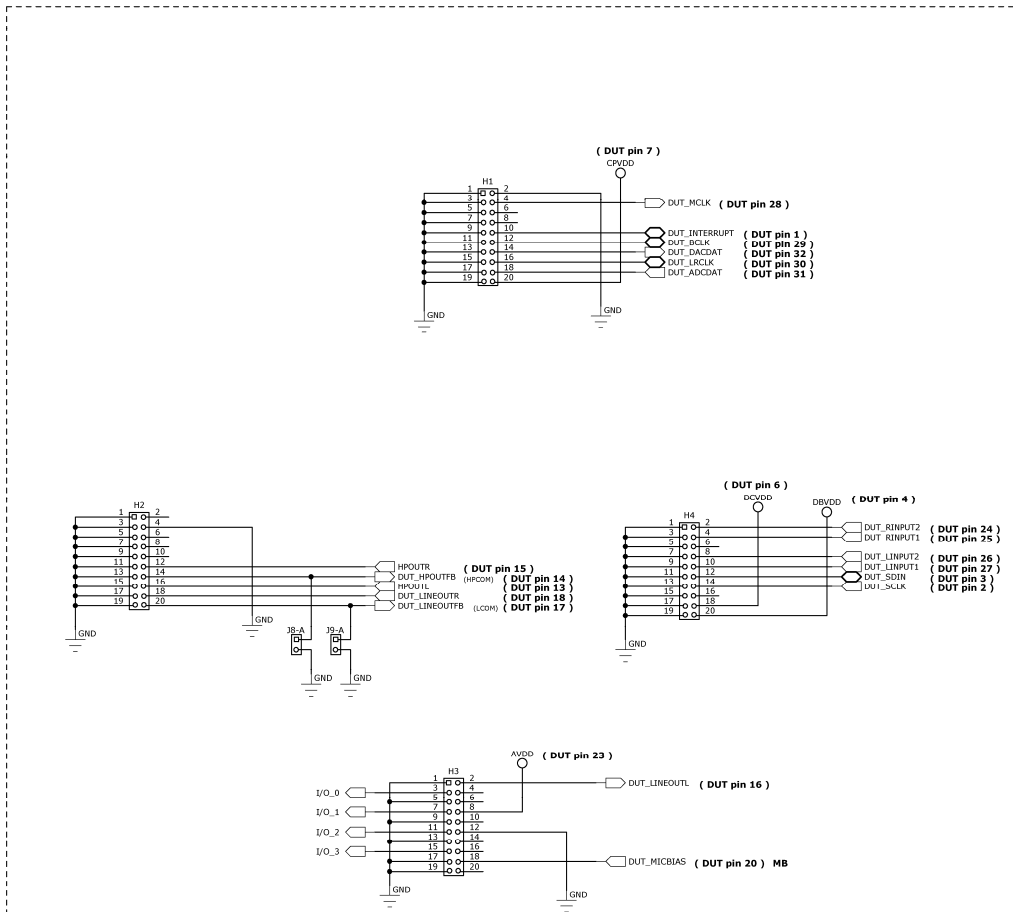
<b>DOC TYPE:</b>	SCHEMATIC AND LAYOUT
<b>BOARD REFERENCE:</b>	WM8904-6201-FL32-M-REV1
<b>BOARD TYPE:</b>	Customer Mini
<b>WOLFSON DEVICE(S):</b>	WM8904
<b>DATE:</b>	July 2009
<b>DOC REVISION:</b>	Rev 1.0

### SCHEMATIC

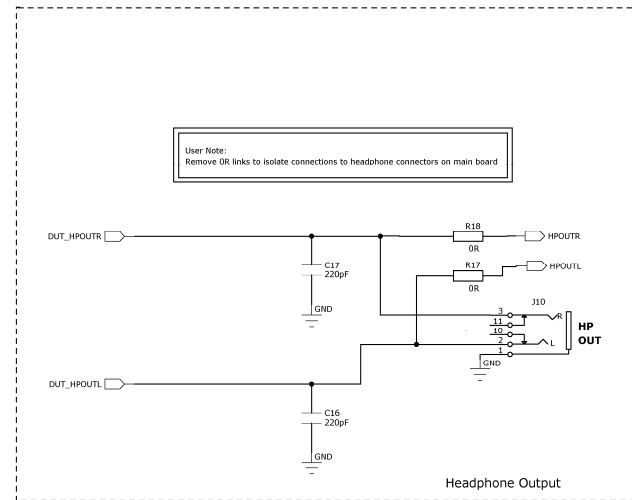
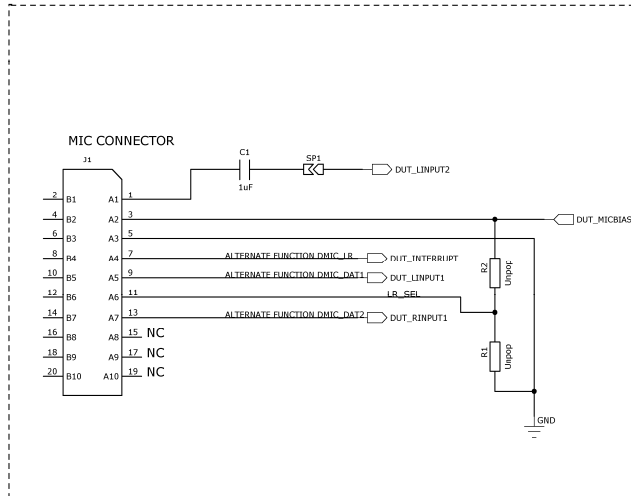
### Sheet 1: WM8904

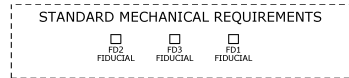


Sheet 2: Mini board Headers



Sheet 3: Mic In & Headphone Out





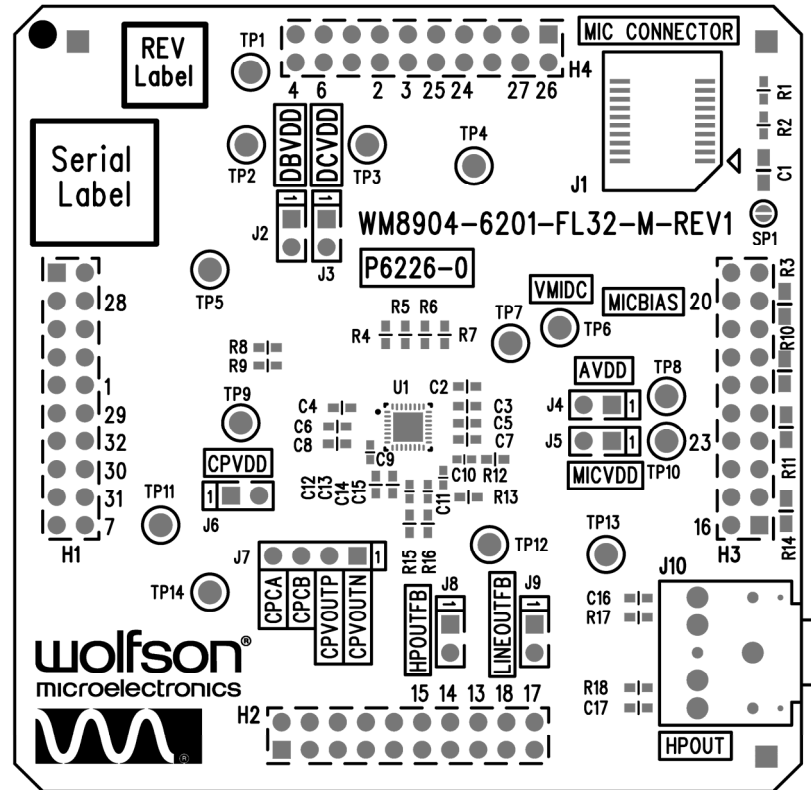
#### REFERENCE TABLES

	Short	Open	LNK_32
J2-B	DBVDD to DUT	No DBVDD to DUT	RED
PCB Ref:	DBVDD		Closed
	Short	Open	LNK_33
J3-B	DCVDD to DUT	No DCVDD to DUT	RED
PCB Ref:	DCVDD		Closed
	Short	Open	LNK_34
J4-B	AVDD to DUT	No AVDD to DUT	RED
PCB Ref:	AVDD		Closed
	Short	Open	LNK_36
J6-B	CPVDD to DUT	No CPVDD to DUT	RED
PCB Ref:	CPVDD		Closed
	Short	Open	LNK_35
J5-B	MICVDD from AVDD	No MICVDD to DUT	RED
PCB Ref:	MILVDD		Closed
	Short	Open	LNK_38
J8-B	HPOUTFB grounded	HPOUTFB floating	YELLOW
PCB Ref:	HPOUTFB Grounded		Short
	Short	Open	LNK_39
J9-B	LINEOUTFB grounded	LINEOUTFB Floating	YELLOW
PCB Ref:	LINEOUTFB grounded		Short

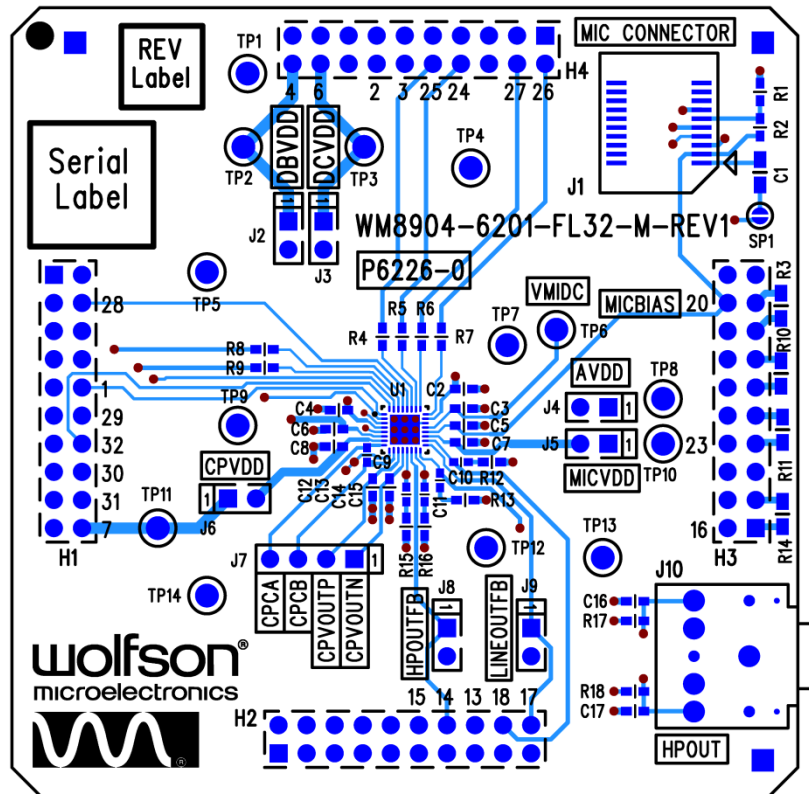
**BILL OF MATERIALS (BOM)**

<i>Item</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
1	J10	3.5mm Jack Socket 6.5mm Centre Height	Technik Industrial	TSH-3565-PBT-TIC-T
2	C12 C13	2.2uF 0603 SMD Ceramic Capacitor 10V X5R	MuRata	GRM188R61A225KE34D
3	C2 C3 C5 C8	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J475KE19D
4	MISC2	Lead-free label, 15mm round	Brady	Y436425
5	J2 J3 J4 J5 J6 J8 J9	1x2 PCB Pin Header 0.1" VERTICAL	Harwin	M20-9990245
6	J7	1x4 2.54mm PCB Header Vertical	Harwin	M20-9990445
7	C9	2.2uF 0402 SMD Ceramic Capacitor 6.3V X5R	Kemet	C0402C225M9PAC
8	C4 C6 C7	0.1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	2238 786 15649
9	C16 C17	220pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A221JAT2A
10	TP6	1.32mm PCB Test Terminal RED	Vero	20-313141
11	C10 C11 C14 C15	0.1uF 0402 SMD Ceramic Capacitor 16V X7R	MuRata	GRM155R71C104KA88D
12	R12 R13 R15 R16	20R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 20R
13	R4 R5 R6 R7 R8 R9 R17 R18	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
14	R3	0R 0805 SMD chip resistor 1% 0.1W	Multicomp	MC 0.1W 0805 0R
15	C1	1uF 0805 SMD Ceramic Capacitor 10V X7R	Multicomp	N0805R105KCT
16	LNK_J2 LNK_J3 LNK_J4 LNK_J5 LNK_J6	0.1" OPEN JUMPER LINK RED	Protech	22-3565
17	LNK_J8 LNK_J9	0.1" OPEN JUMPER LINK YELLOW	Protech	22-3570
18	J1	2x10 way socket, mates with edge connector on 0.062" thick PCB	Samtec	MEC8-110-02-L-DV
19	H1 H2 H3 H4	2x10 2.54mm pitch PCB Socket Strip VERTICAL Long Lead	Samtec	SSQ-110-03-G-D
20	PCB1	PCB	Kelan Circuits Ltd	WM8904-6201-FL32-M-REV1
21	U1	WM8904 Ultra Low Power Codec for Portable Audio Applications	Wolfson Microelectronics Ltd	WM8904
<b>Unpop</b>				
22	R1 R2	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
23	R10 R11 R14	0R 0805 SMD chip resistor 1% 0.1W	Multicomp	MC 0.1W 0805 0R

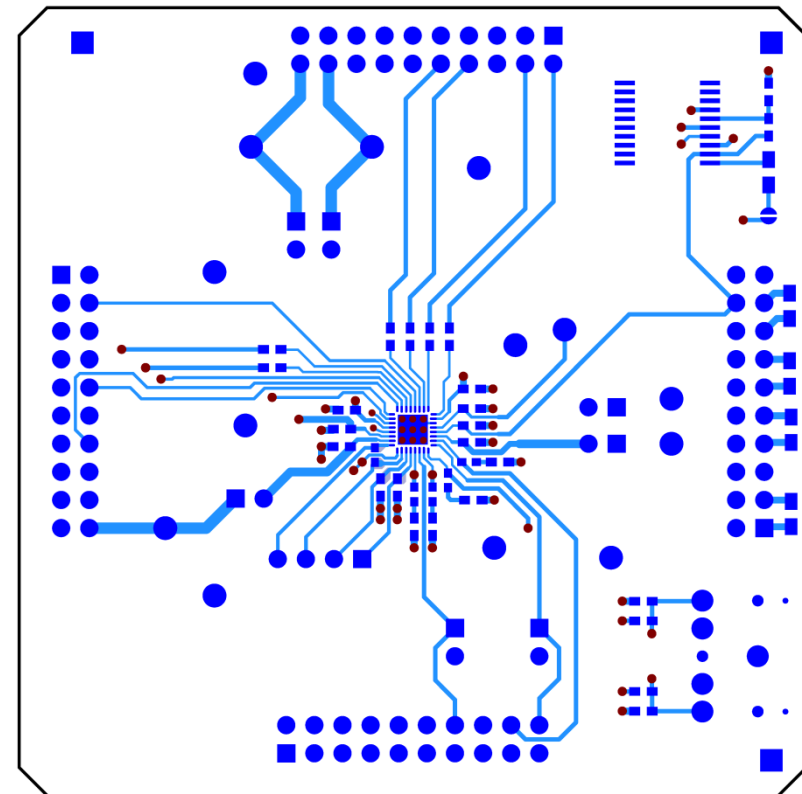
**PCB LAYOUT**



Top Layer: Overview

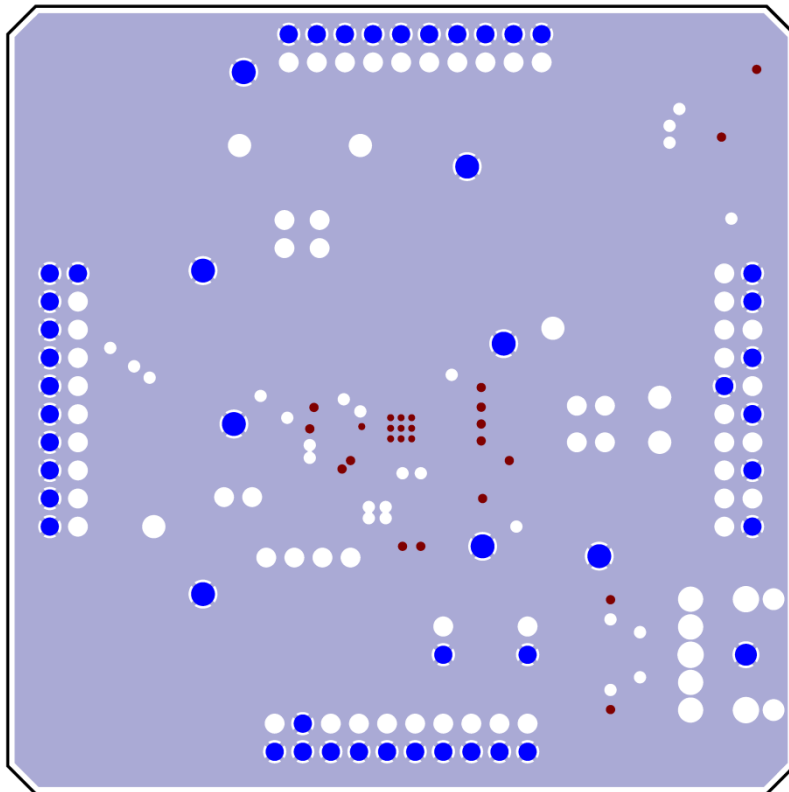


Top Layer: Silkscreen + Copper

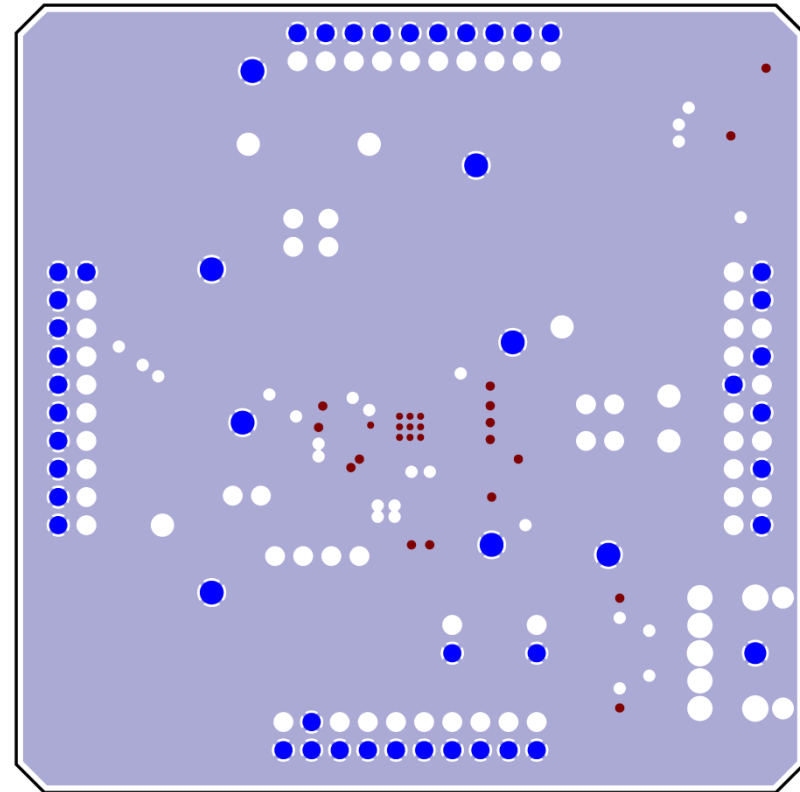


Top Layer: Copper

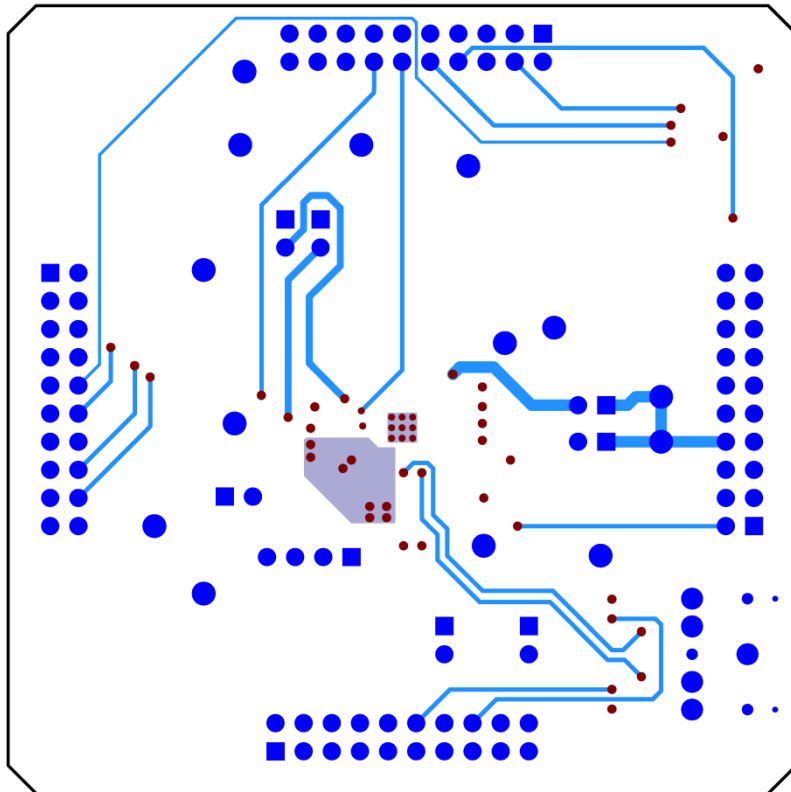




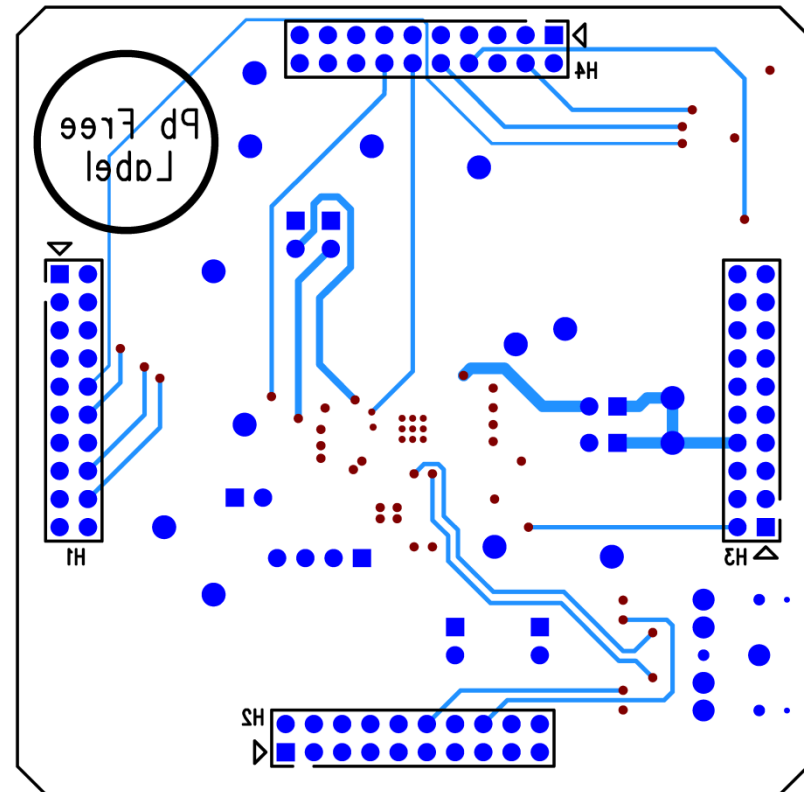
Layer 2: Copper



Layer 3: Copper



Bottom Layer: Copper



Bottom Layer: Silkscreen + Copper

## **APPLICATION SUPPORT**

If you require more information or require technical support, please contact the Wolfson Microelectronics Applications group through the following channels:

Email: apps@wolfsonmicro.com  
Telephone Apps: +44 (0) 131 272 7070  
Fax: +44 (0) 131 272 7001  
Mail: Applications Engineering at the address on the last page

or contact your local Wolfson representative.

Additional information may be made available on our web site at: <http://www.wolfsonmicro.com>

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