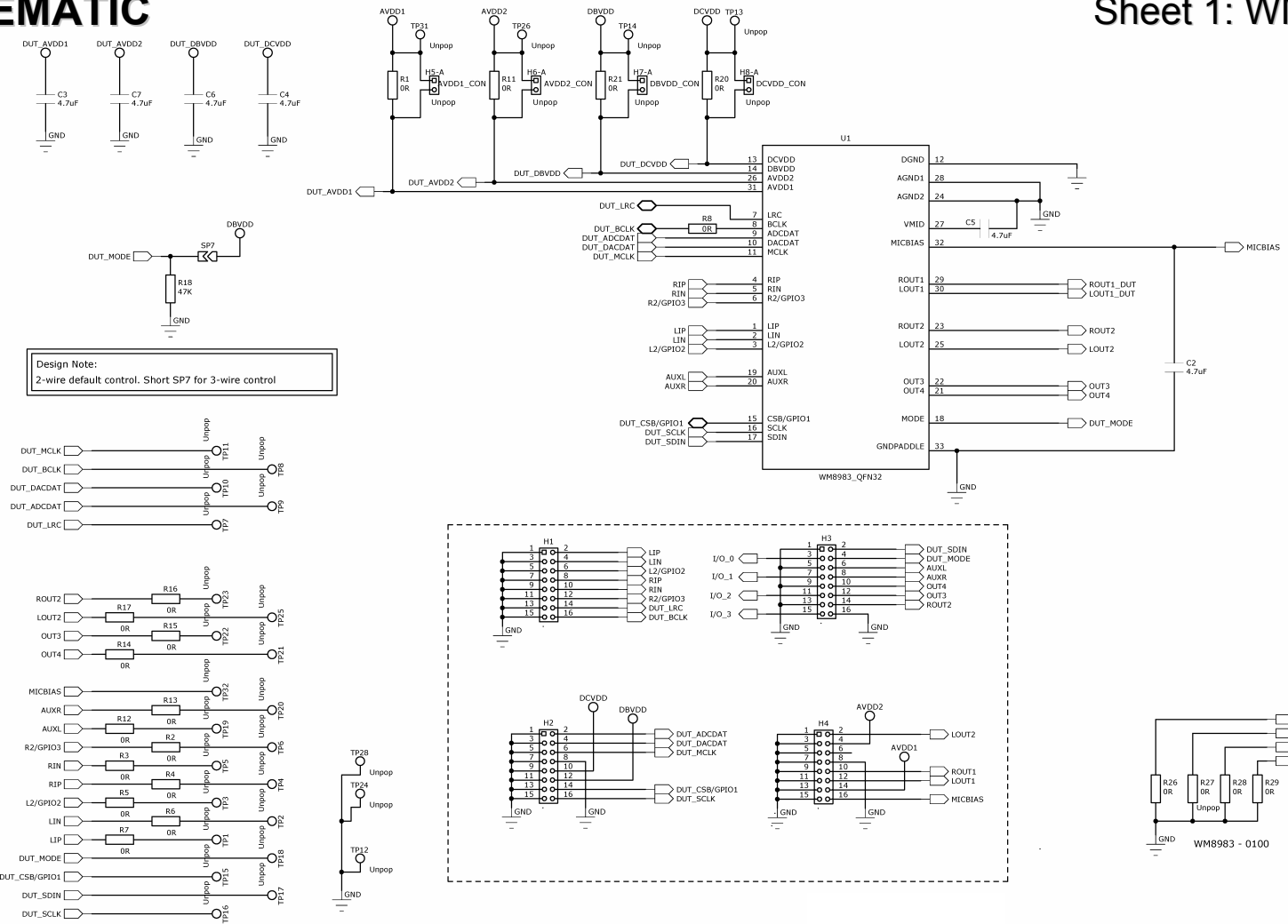


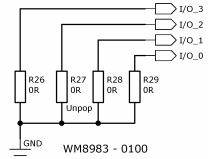
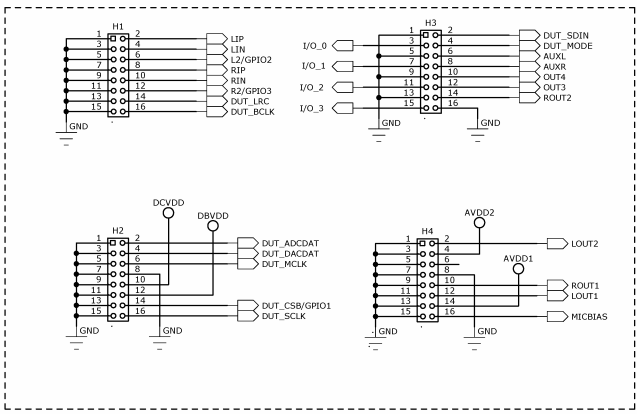
<b>DOC TYPE:</b>	Schematic and Layout
<b>BOARD REFERENCE:</b>	WM8983-6160-FL32-M-REV1
<b>BOARD TYPE:</b>	Customer Mini
<b>WOLFSON DEVICE(S):</b>	WM8983
<b>DATE:</b>	April 2008
<b>DOC REVISION:</b>	Rev 1.0

### SCHEMATIC

Sheet 1: WM8983

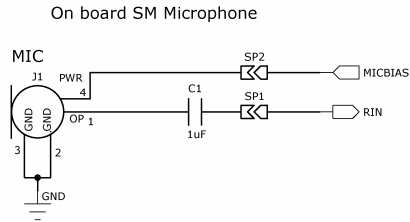


**Design Note:**  
2-wire default control. Short SP7 for 3-wire control

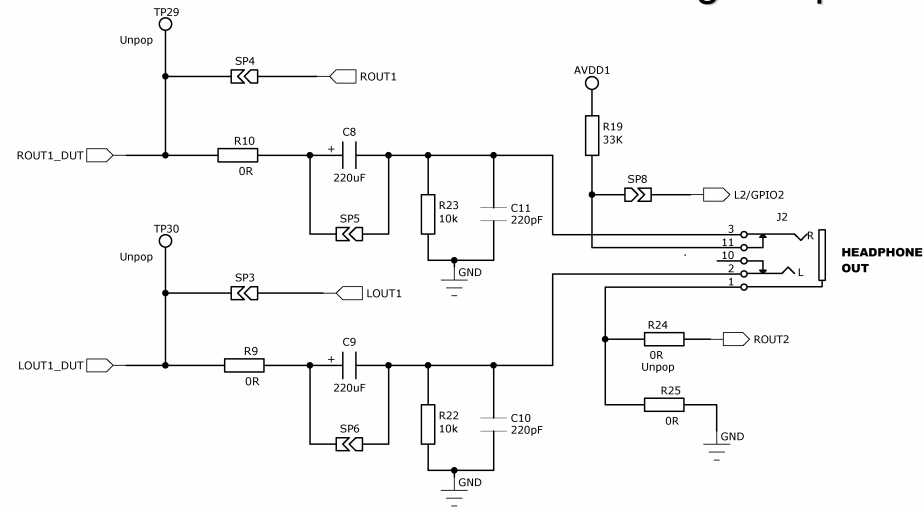


### SCHEMATIC

### Sheet 2: Analogue Input/Output



**User Note:**  
When MIC is not in use MICBIAS should be disabled in the register settings



**User Note:**  
1. Short SP3 & SP4, remove R6 and pop R7 when using capless mode.  
2. Short SP1 for headphone detect

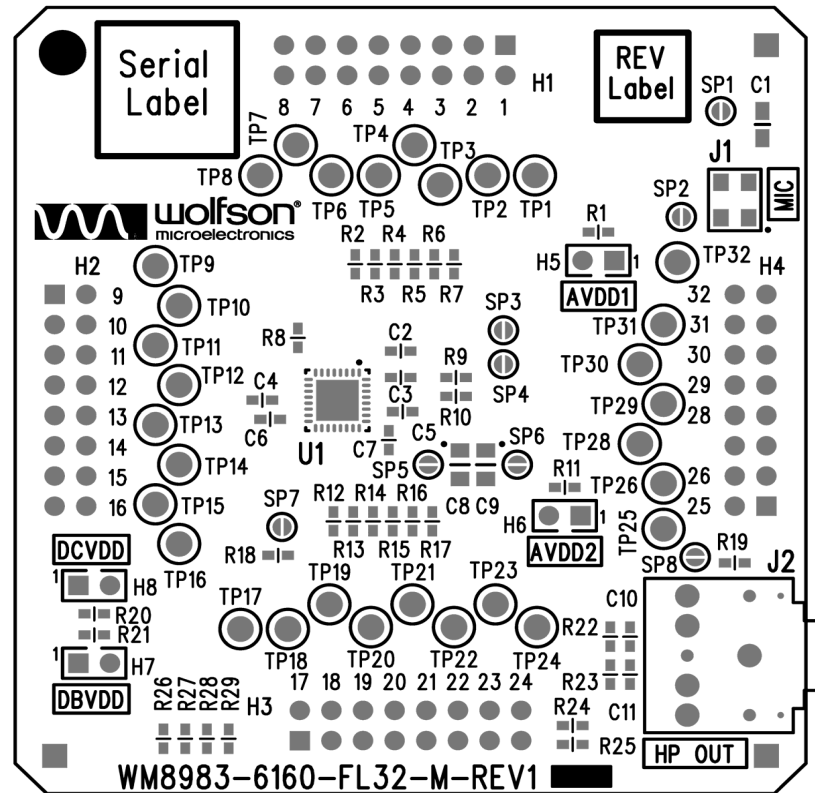
**REFERENCE TABLES**

	Short	Open	
H9-B	AVDD to DUT	No AVDD to DUT	No Fit
PCB Ref:	AVDD1_CON		
H10-B	HPVDD to DUT	No HPVDD to DUT	No Fit
PCB Ref:	AVDD2_CON		
H11-B	DBVDD to DUT	No DBVDD to DUT	No Fit
PCB Ref:	DBVDD_CON		
H12-B	DCVDD to DUT	No DCVDD to DUT	No Fit
PCB Ref:	DCVDD_CON		

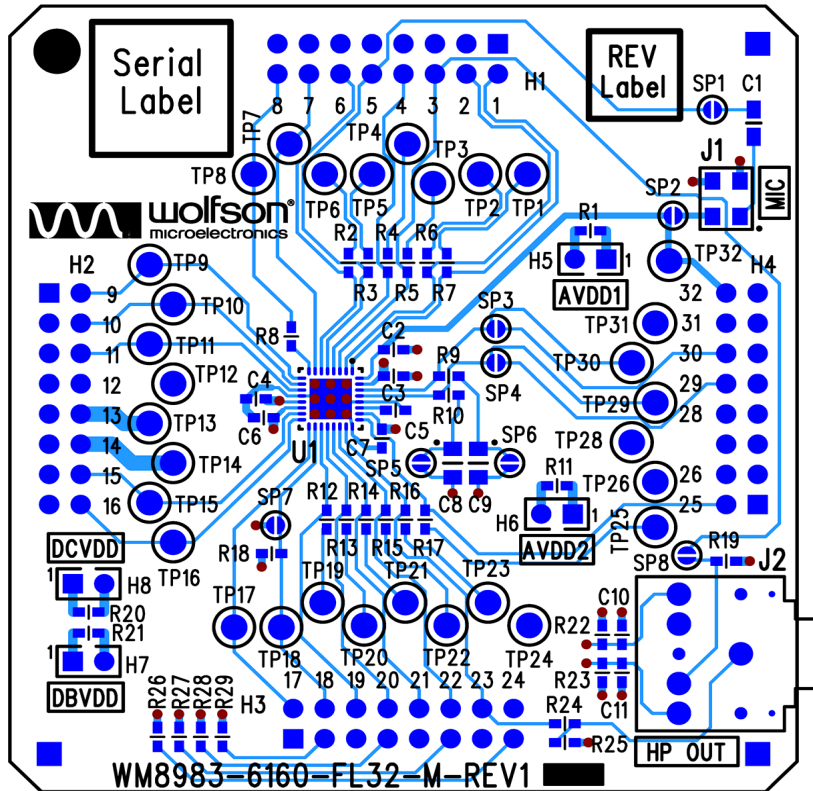
**BILL OF MATERIALS (BOM)**

<i>Item</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
1	J2	3.5mm Jack Socket 6.5mm Centre Height	Technik Industrial	TSH-3565-PBT-TIC-T
2	J1	Silicon Surface Mount Microphone, Unamplified	Knowles Acoustics	SPM0102NE3-2
3	C2 C3 C4 C5 C6 C7	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM188R60J475KE19D
4	MISC2	Lead-free label, 15mm round	Brady	805794
5	C10 C11	220pF 0603 SMD Ceramic Capacitor 50V NPO	AVX	06035A221JAT2A
6	R22 R23	10k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 10K
7	R19	33k 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 33K
8	R18	47K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 47K
9	R1 R8 R9 R10 R11 R20 R21 R25 R26 R28 R29	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
10	C1	1uF 0805 SMD Ceramic Capacitor 10V X7R	Multicomp	N0805R105KCT
11	H1 H2 H3 H4	2x8 2.54mm pitch PCB Socket Strip VERTICAL	SAMTEC	SSQ-108-02-G-D
12	C8 C9	220uF 4V SMD Tantalum Capacitor case P	Vishay	298D227X0004P2T
13	PCB1	PCB	Kelan Circuits Ltd	WM8983-6160-FL32-M-REV1
14	U1	WM8983 DSC CODEC	Wolfson Microelectronics	WM8983GEFL
<b>Unpop</b>				
15	H5 H6 H7 H8	1x2 PCB Pin Header 0.1" VERTICAL	Harwin	M20-9990245
16	R2 R3 R4 R5 R6 R7 R12 R13 R14 R15 R16 R17 R24 R27	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
17	SP1 SP2 SP3 SP4 SP5 SP6 SP7 SP8	Surface mount shorting point	N/A	N/A
18	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP24 TP25 TP26 TP28 TP29 TP30 TP31 TP32	1.32mm off-board connection point	N/A	N/A

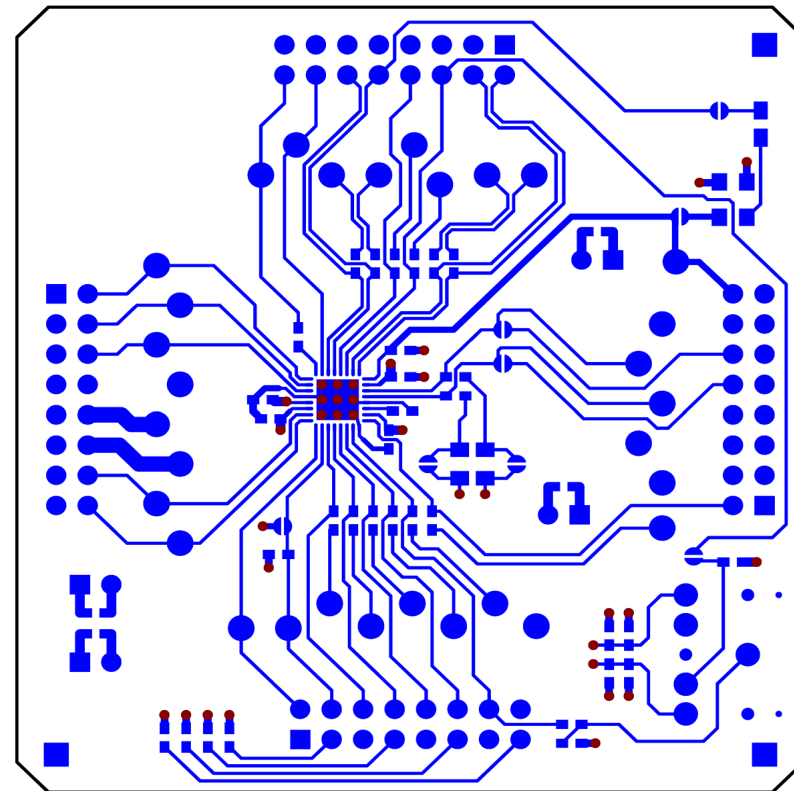
**PCB LAYOUT**



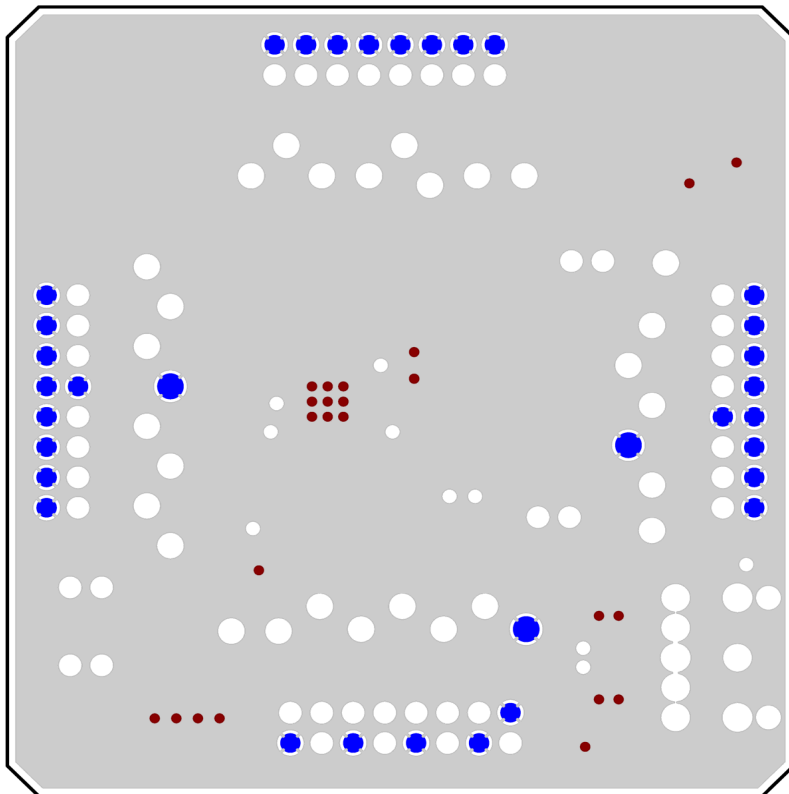
Top Layer: Overview



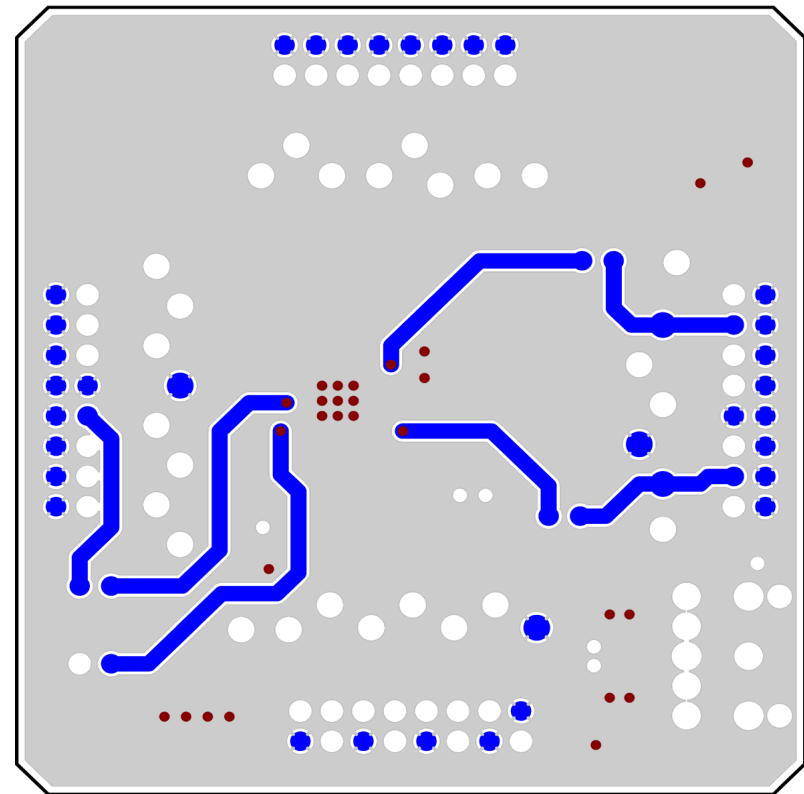
Top Layer: Silkscreen + Copper



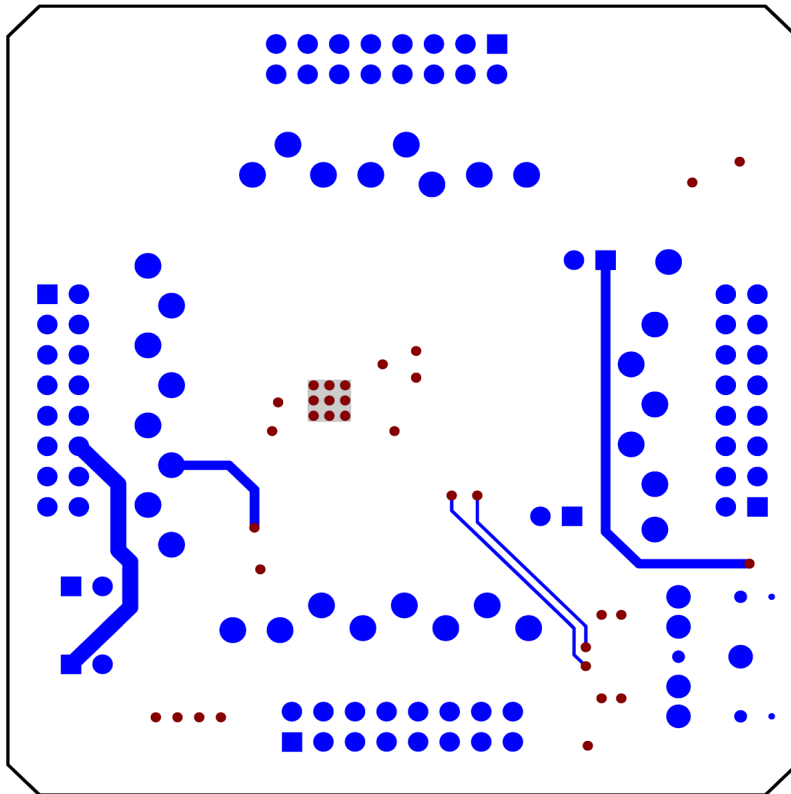
Top Layer: Copper



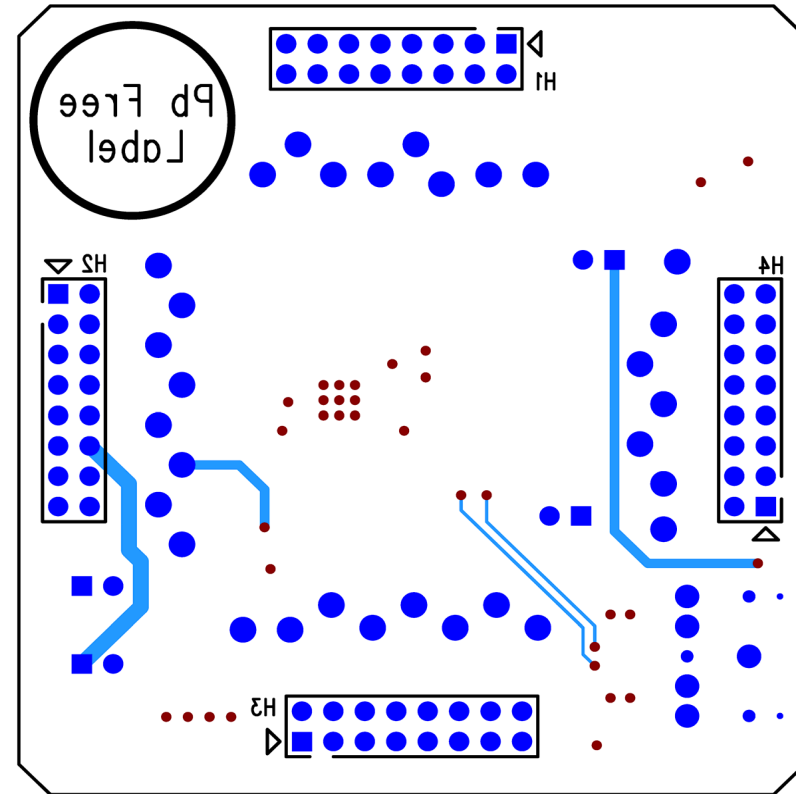
Layer 2: Copper



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:

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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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