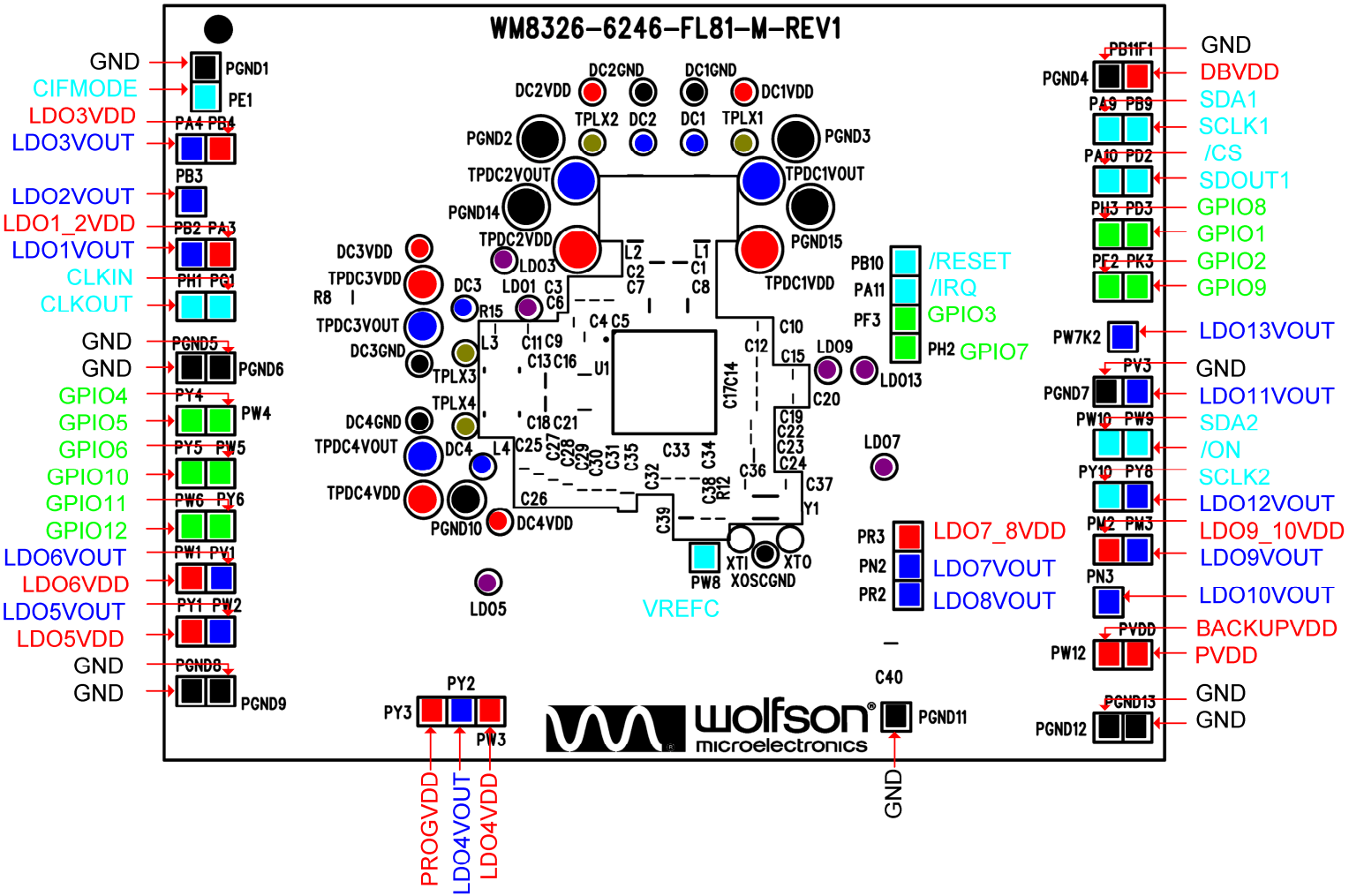
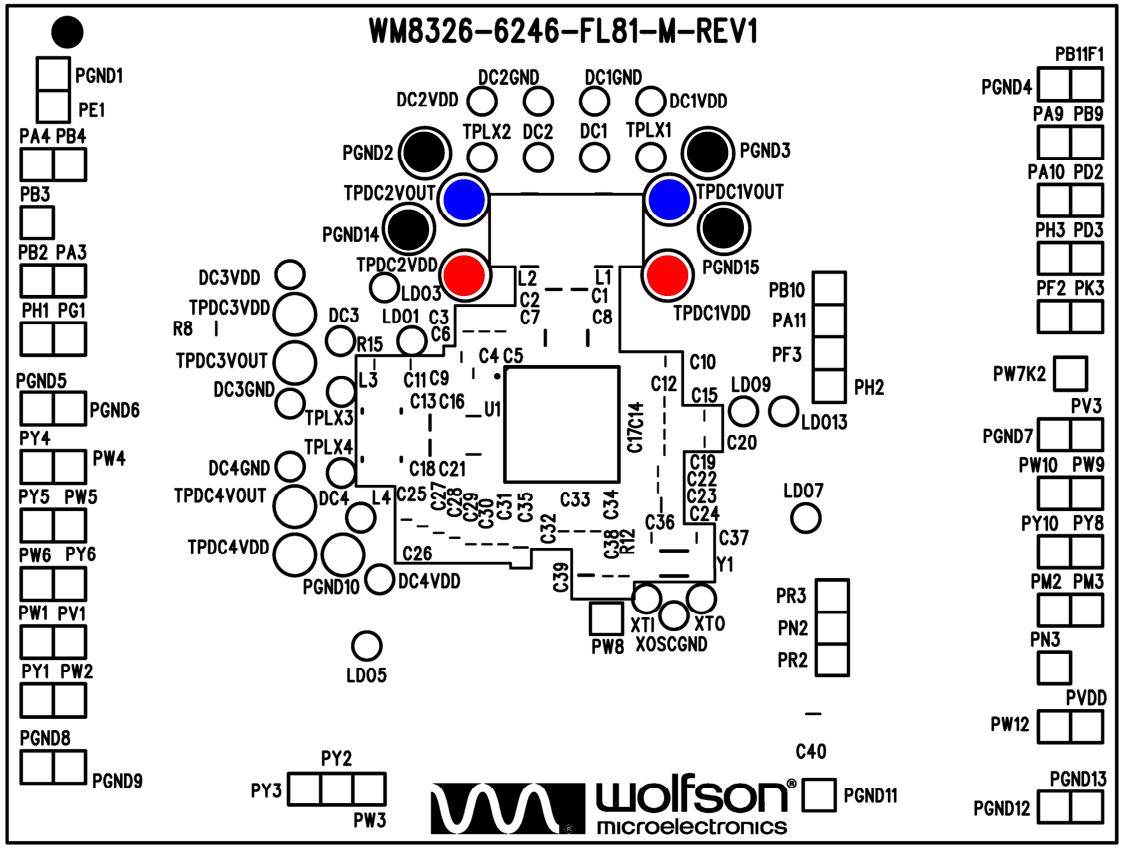
DOC TYPE:	SCHEMATIC AND LAYOUT
BOARD REFERENCE:	WM8326-6246-FL81-M-REV1
BOARD TYPE:	Customer Mini
WOLFSON DEVICE(S):	WM8326
DATE:	January 2011
DOC REVISION:	Rev 1.0

TEST POINT IDENTIFICATION



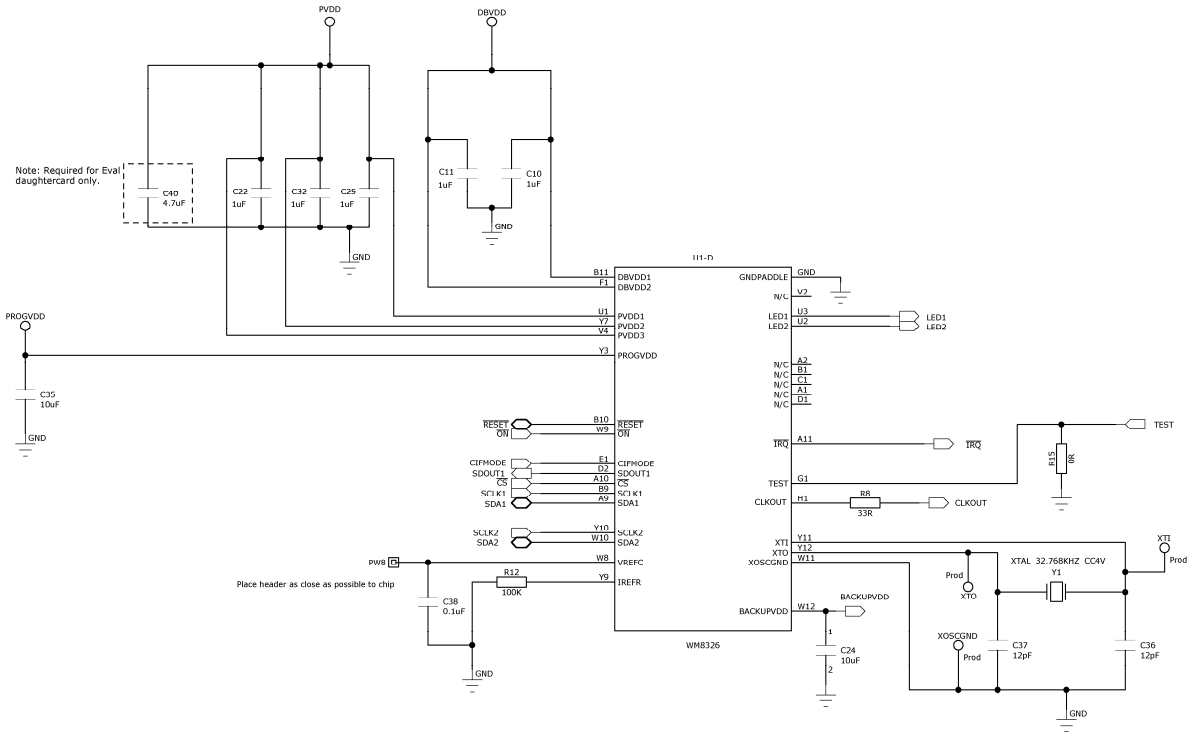
DISCLAIMER

The maximum current capability of DC-DC1 and DC-DC2 is 2.5A, therefore extra care should be taken when evaluating those DC-DC converters at full power. Wolfson recommend connecting the power source and the load directly to the WM8326 mini-board using the TPDC*m*VDD and TPDC*m*OUT test points respectively (with their associated grounds) .

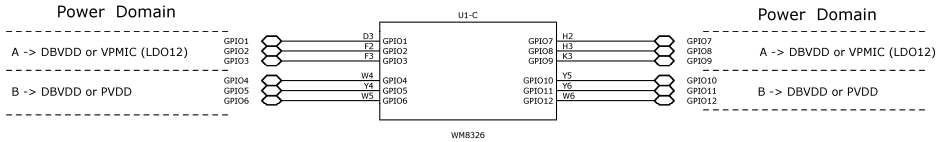


SCHEMATIC

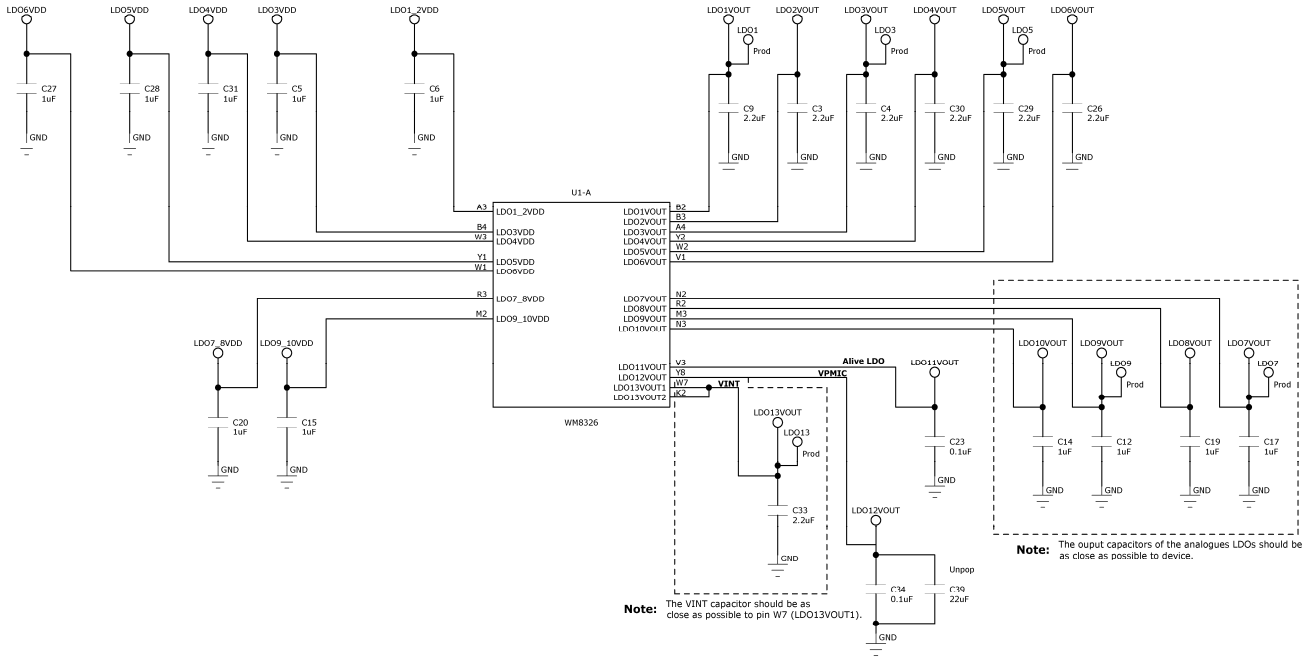
Sheet 1: Misc



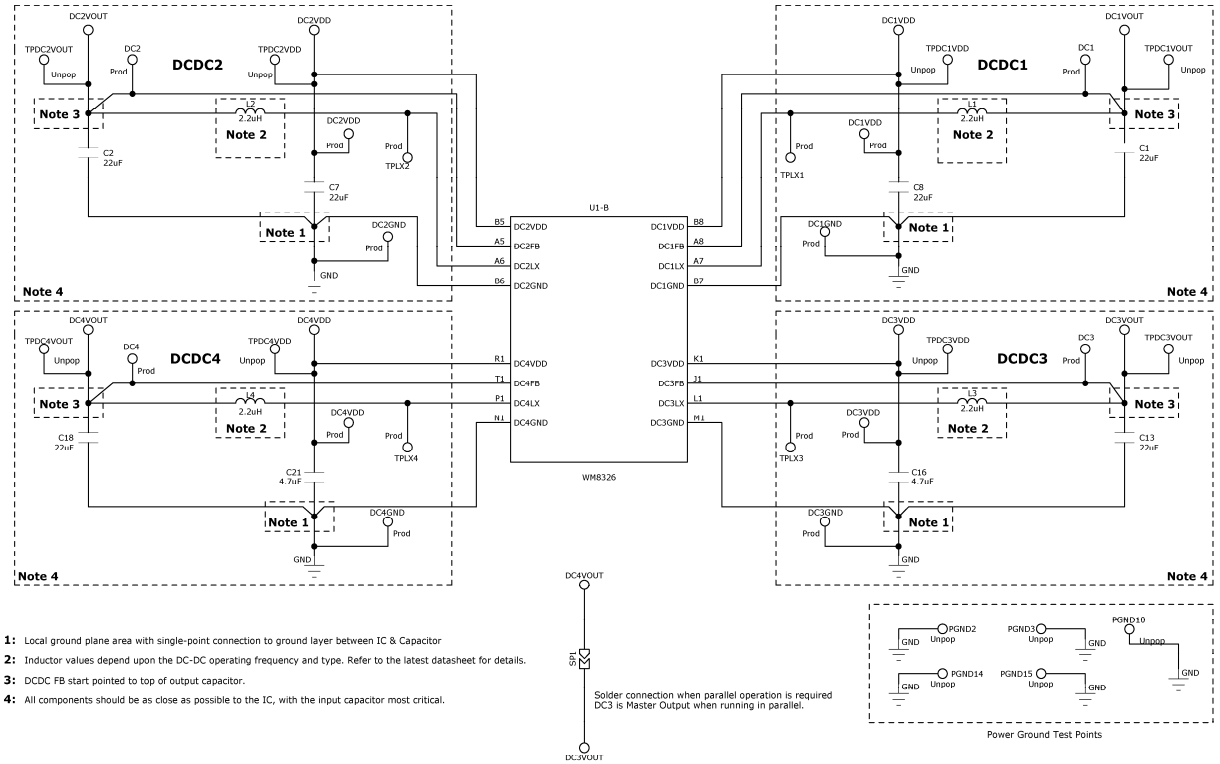
Sheet 2: AUXADC & GPIOs



Sheet 3: LDO Regulators



Sheet 4: DCDC Regulators



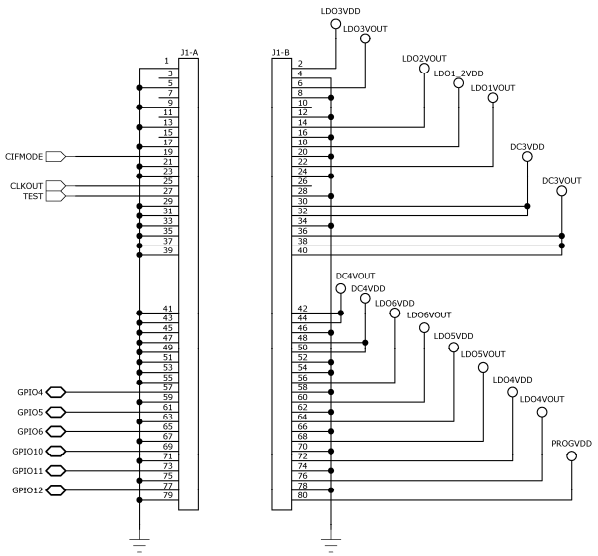
Note 1: Local ground plane area with single-point connection to ground layer between IC & Capacitor

Note 2: Inductor values depend upon the DC-DC operating frequency and type. Refer to the latest datasheet for details.

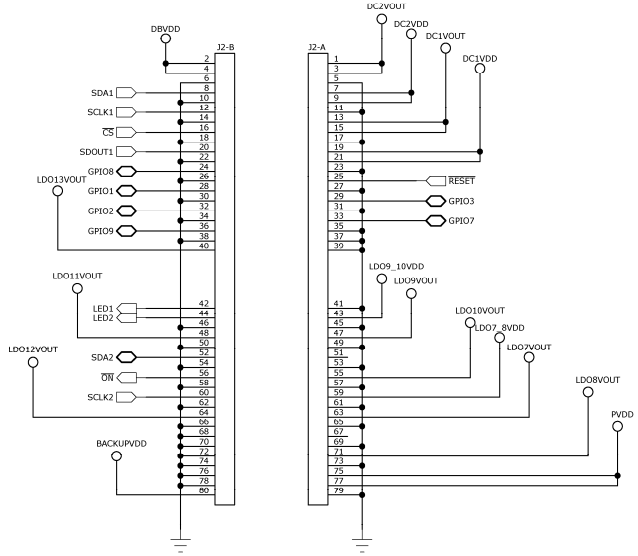
Note 3: DCDC FB start pointed to top of output capacitor.

Note 4: All components should be as close as possible to the IC, with the input capacitor most critical.

Sheet 5: Connectors



Bottom-side surface-mount connector



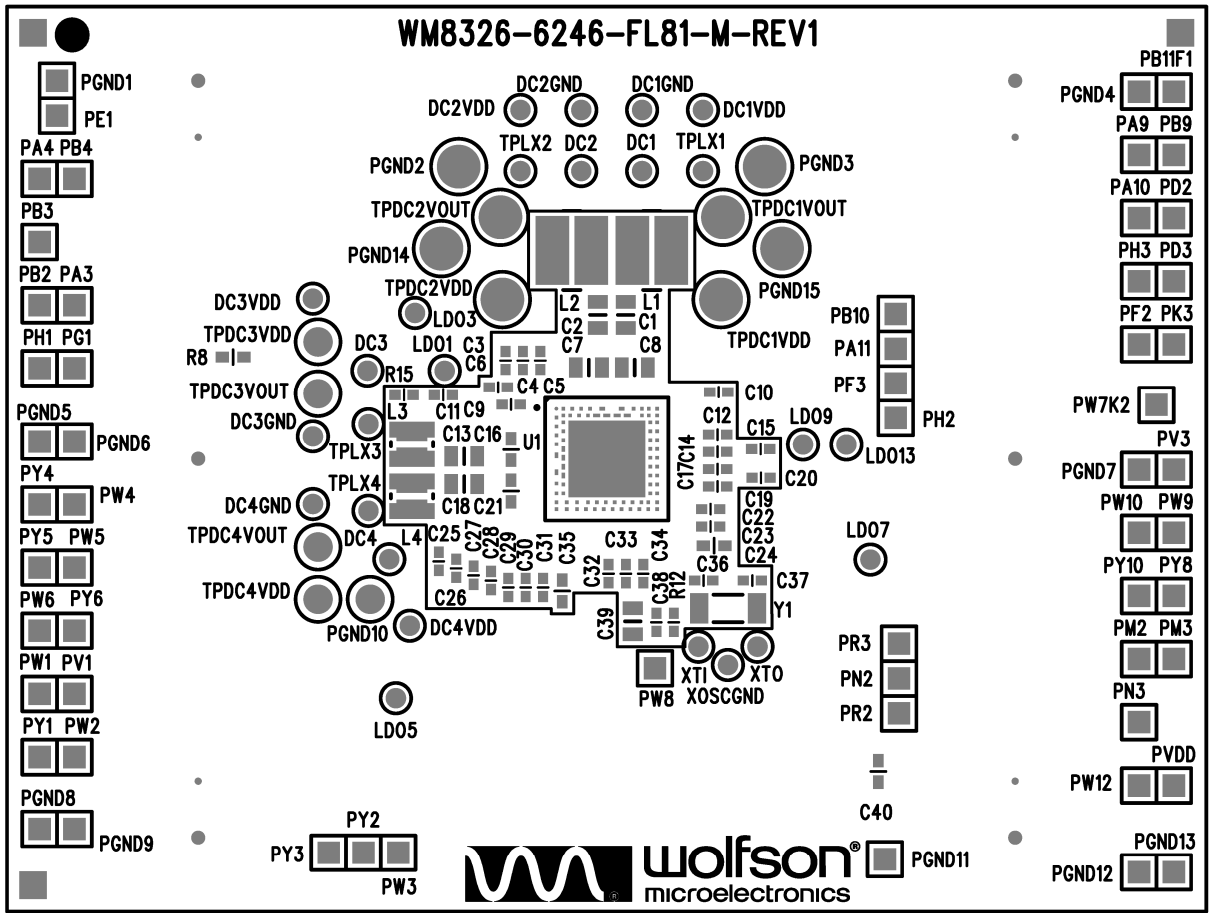
Bottom-side surface-mount connector

BILL OF MATERIALS (BOM)

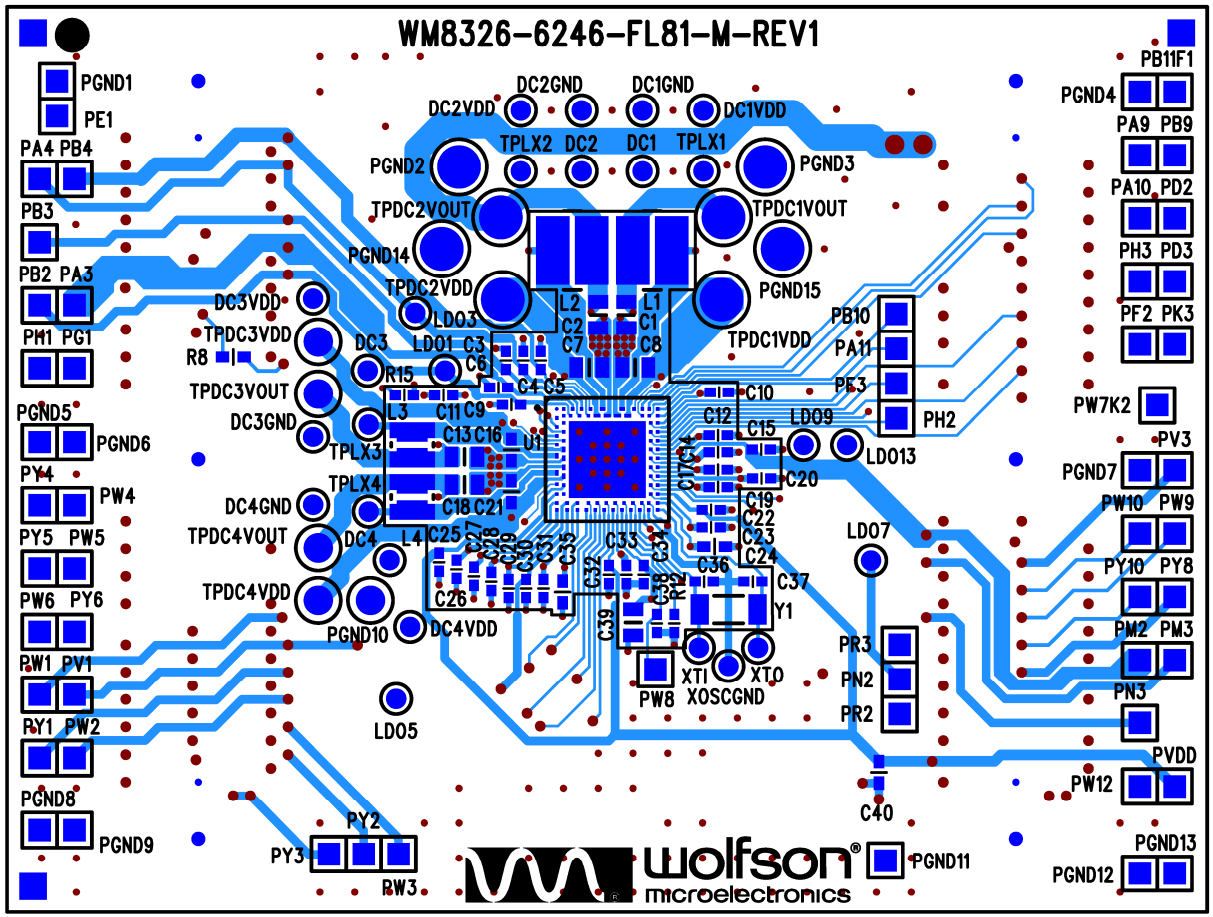
Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
1	L3 L4	2.2uH Shielded SM 1.1A Inductor LPS3015 Series	Coilcraft	LPS3015-222MLB
2	L1 L2	2.2uH 5.0A SM Shielded Power Inductor XAL4030 Series	Coilcraft	XAL4030-222ME
3	C36 C37	12pF 0402 SMD Ceramic Capacitor 50V C0G	MuRata	GRM1555C1H120JZ01D
4	C1 C2 C7 C13 C18	22uF 0805 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM21BR60J226ME39L
5	C8	22uF 0805 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM21BR60J226ME39L
6	C16 C21 C40	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J475KE19D
7	C5 C6 C10 C11 C12 C14 C15 C17 C19 C20 C22 C25 C27 C28 C31 C32	1uF 0402 SMD Ceramic Capacitor 10V X5R	MuRata	GRM155R61A105KE15D
8	C24	10uF 0603 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM188R60J106ME47D
9	C35	10uF 0603 SMD Ceramic Capacitor 10V X5R	Panasonic	ECJ-1VB1A106M
10	PA3 PA4 PA9 PA10 PA11 PB11F1 PB2 PB3 PB4 PB9 PB10 PD2 PD3 PE1 PF2 PF3 PG1 PGND1 PGND4 PGND5 PGND6 PGND7 PGND8 PGND9 PGND11 PGND12 PGND13 PH1 PH2 PH3 PK3 PM2 PM3 PN2 PN3 PR2 PR3 PV1 PV3 PVDD PW1 PW7K2 PW2 PW3 PW4 PW5 PW6 PW8 PW9 PW10 PW12 PY1 PY2 PY3 PY4 PY5 PY6 PY8 PY10	1x1 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9990245
11	C3 C4 C9 C26 C29 C30 C33	2.2uF 0402 SMD Ceramic Capacitor 6.3V X5R	Kemet	C0402C225M9PAC
12	R15	0R 0402 SMD chip resistor 1% 0.063W	Multicomp	MC 0.0625W 0402 1% 0R
13	R12	100K 0402 SMD chip resistor 1% 0.063W	Multicomp	0402WGF1003TCE
14	MISC1	Lead-free label, 15mm round	Pro Power	7827260
15	C23 C34 C38	0.1uF 0402 SMD Ceramic Capacitor 16V X7R	MuRata	GRM155R71C104KA88D
16	R8	33R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 33R
17	Y1	32.768kHz CC4V SM Crystal 9pF	Golledge	CC4V-T1A 32.768kHz
18	PCB1	PCB	TBA	WM8326-6246-FL81-M-REV1

Item	RefDes	Description	Manufacturer	Manufacturer's Part Number
19	U1	WM8326 Processor Power Management Subsystem	Wolfson Microelectronics	WM8326GEFL
Unpop				
20	DC1GND DC1VDD DC2VDD DC2GND DC4VDD DC3VDD DC1 DC2 DC3 DC4 LDO1 LDO3 LDO5 LDO7 LDO9 LDO13 TPLX1 TPLX2 TPLX3 TPLX4 XOSCGND XTI XTO	1.0mm PCB Hole test point		
21	DC4GND DC3GND	1.0mm PCB Hole test point		
22	J1 J2	FSI-140 connector mating footprint		
23	PGND2 PGND3 PGND14 PGND15 TPDC2VOUT TPDC2VDD TPDC1VOUT TPDC1VDD	1.95mm on-board connection point		
24	C39	22uF 0805 SMD Ceramic Capacitor 6.3V X5R	MuRata	GRM21BR60J226ME39L
25	PGND10 TPDC4VDD TPDC3VOUT TPDC3VDD TPDC4VOUT	1.32mm off-board connection point	N/A	N/A
26	SP1	Surface mount shorting point	N/A	N/A

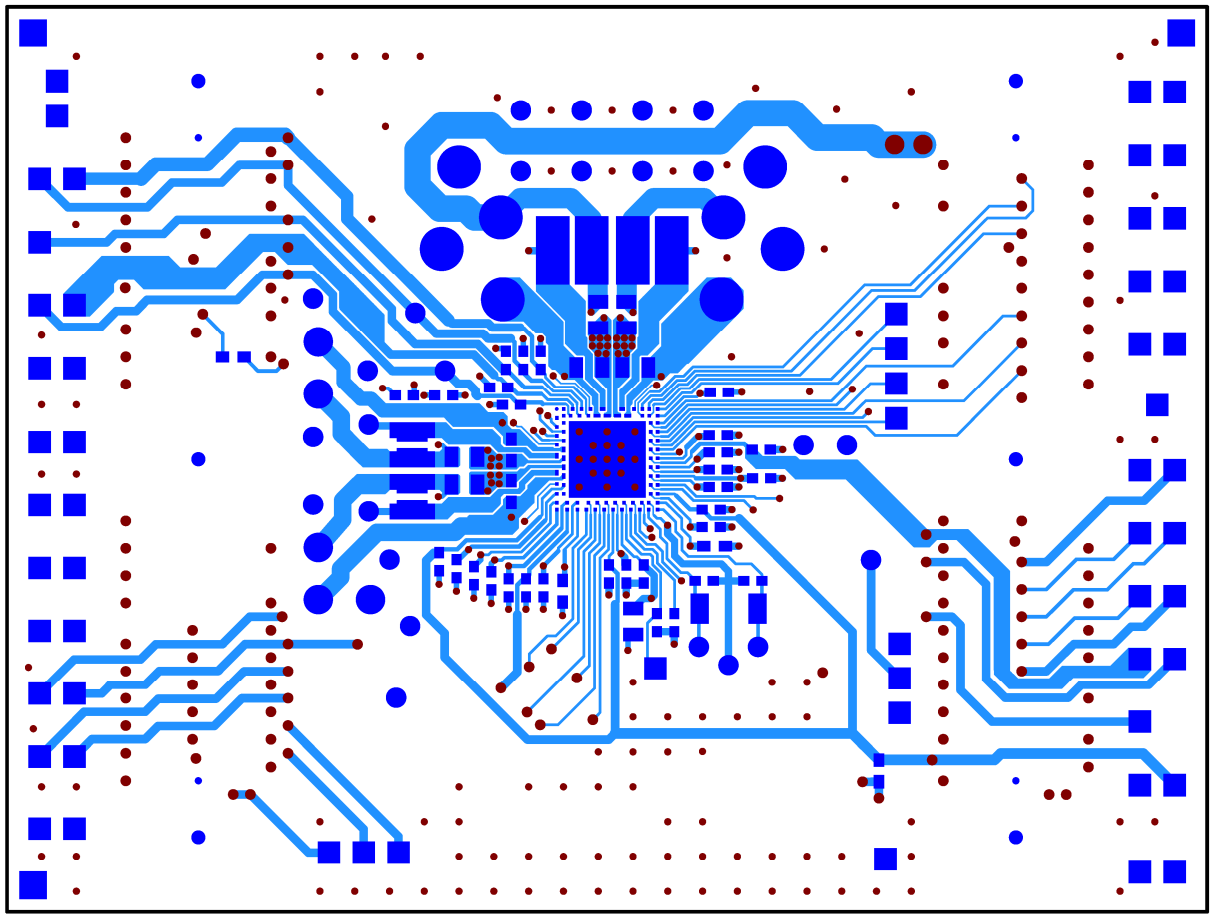
PCB LAYOUT



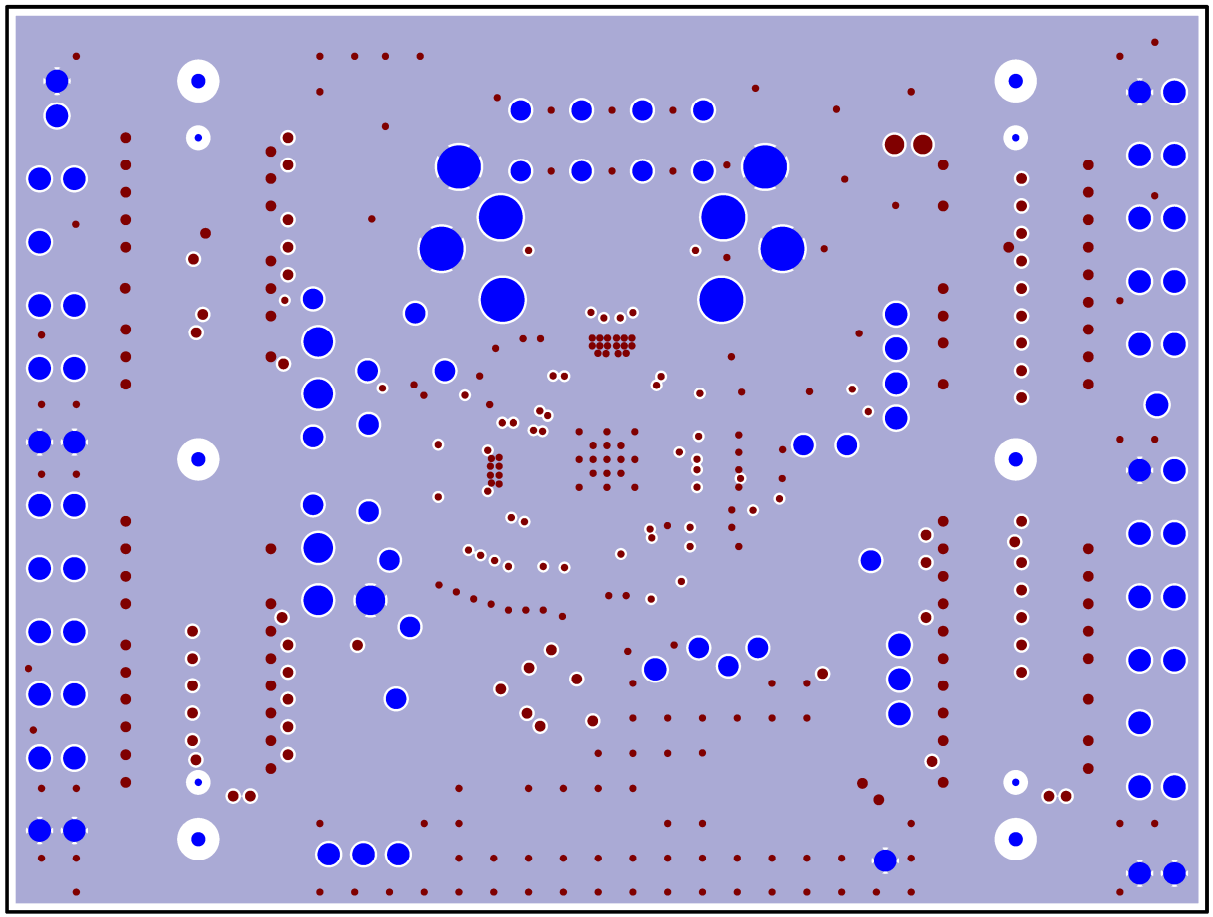
Top Layer: Overview



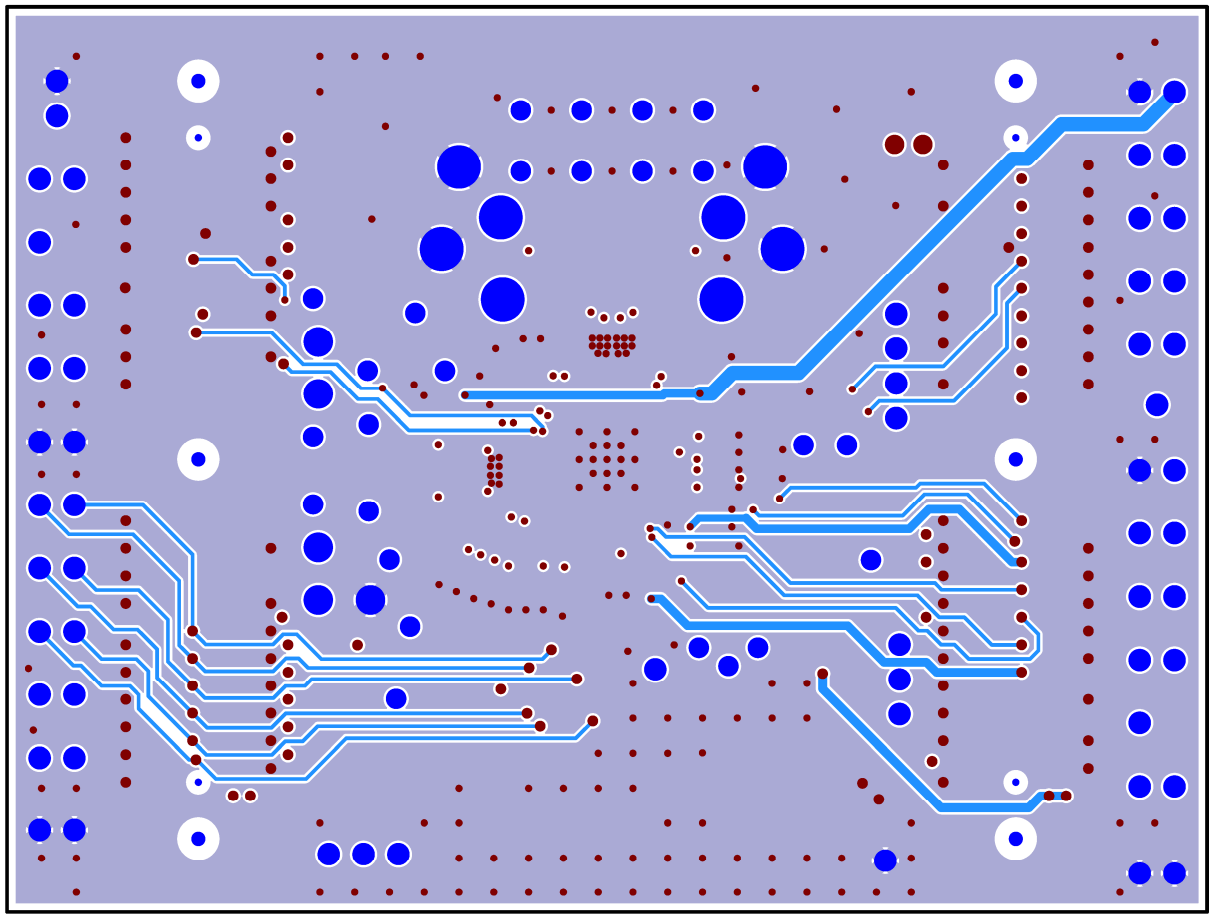
Top Layer: Silkscreen + Copper



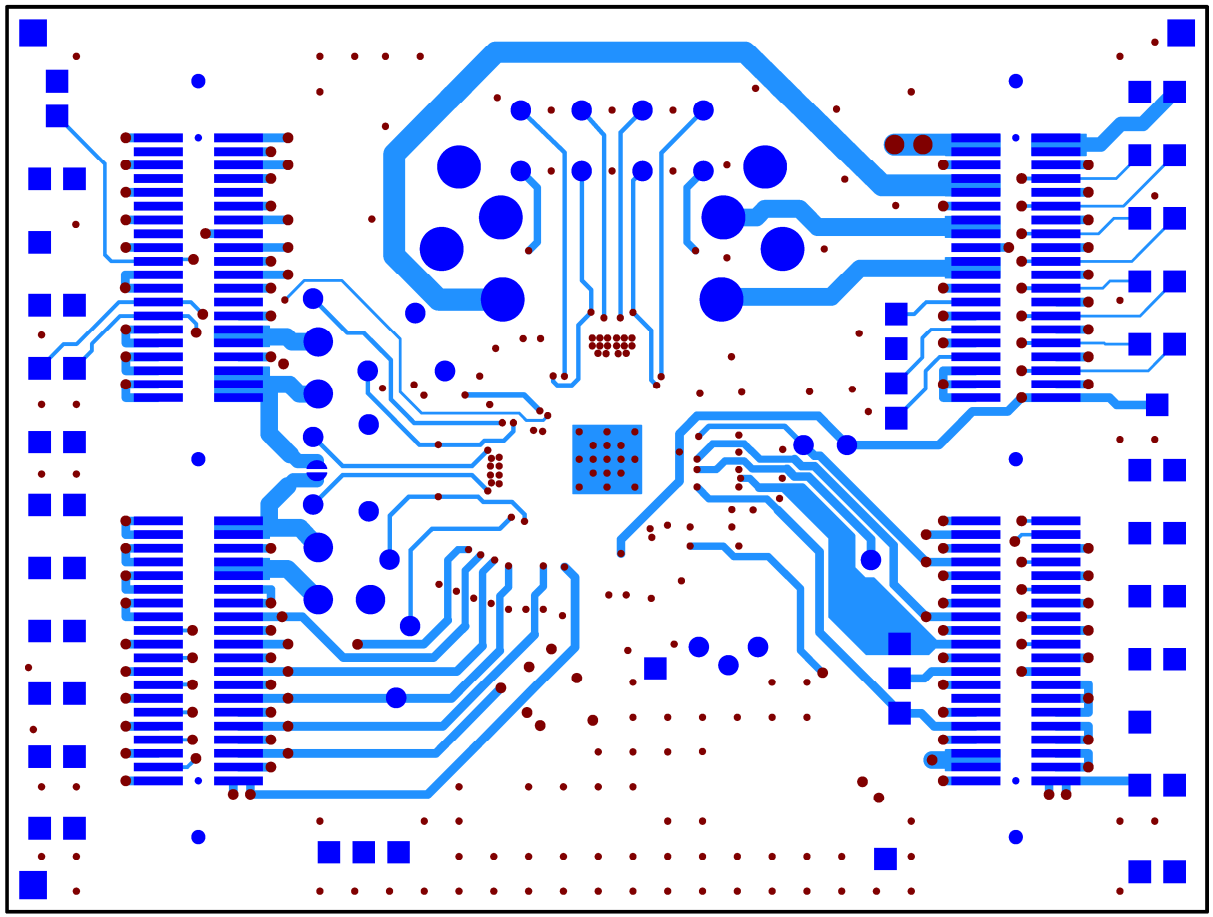
Top Layer: Copper



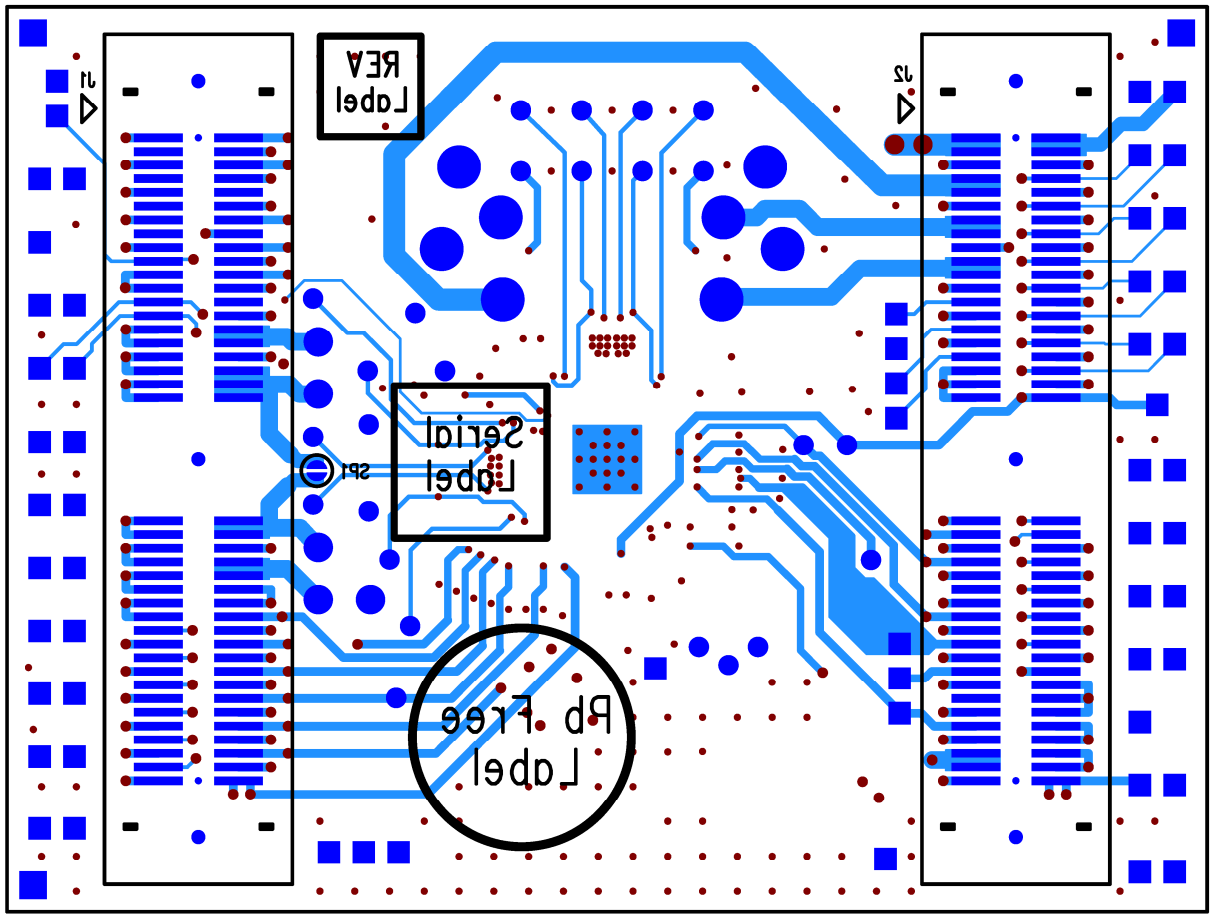
Layer 2: Copper



Layer 3: Copper



Bottom Layer: Copper



Bottom Layer: Silkscreen + Copper

TECHNICAL SUPPORT

If you require more information or require technical support, please contact the nearest Wolfson Microelectronics regional office:
http://www.wolfsonmicro.com/contact

or one of our global distributors:
http://www.wolfsonmicro.com/distribution

IMPORTANT NOTICE

Wolfson Microelectronics plc ("Wolfson") products and services are sold subject to Wolfson's terms and conditions of sale, delivery and payment supplied at the time of order acknowledgement.

Wolfson warrants performance of its products to the specifications in effect at the date of shipment. Wolfson reserves the right to make changes to its products and specifications or to discontinue any product or service without notice. Customers should therefore obtain the latest version of relevant information from Wolfson to verify that the information is current.

Testing and other quality control techniques are utilised to the extent Wolfson deems necessary to support its warranty. Specific testing of all parameters of each device is not necessarily performed unless required by law or regulation.

In order to minimise risks associated with customer applications, the customer must use adequate design and operating safeguards to minimise inherent or procedural hazards. Wolfson is not liable for applications assistance or customer product design. The customer is solely responsible for its selection and use of Wolfson products. Wolfson is not liable for such selection or use nor for use of any circuitry other than circuitry entirely embodied in a Wolfson product.

Wolfson's products are not intended for use in life support systems, appliances, nuclear systems or systems where malfunction can reasonably be expected to result in personal injury, death or severe property or environmental damage. Any use of products by the customer for such purposes is at the customer's own risk.

Wolfson does not grant any licence (express or implied) under any patent right, copyright, mask work right or other intellectual property right of Wolfson covering or relating to any combination, machine, or process in which its products or services might be or are used. Any provision or publication of any third party's products or services does not constitute Wolfson's approval, licence, warranty or endorsement thereof. Any third party trade marks contained in this document belong to the respective third party owner.

Reproduction of information from Wolfson datasheets is permissible only if reproduction is without alteration and is accompanied by all associated copyright, proprietary and other notices (including this notice) and conditions. Wolfson is not liable for any unauthorised alteration of such information or for any reliance placed thereon.

Any representations made, warranties given, and/or liabilities accepted by any person which differ from those contained in this datasheet or in Wolfson's standard terms and conditions of sale, delivery and payment are made, given and/or accepted at that person's own risk. Wolfson is not liable for any such representations, warranties or liabilities or for any reliance placed thereon by any person.

ADDRESS:
Wolfson Microelectronics plc
Westfield House
26 Westfield Road
Edinburgh
EH11 2QB
United Kingdom
Tel :: +44 (0)131 272 7000
Fax :: +44 (0)131 272 7001
Email :: apps@wolfsonmicro.com