

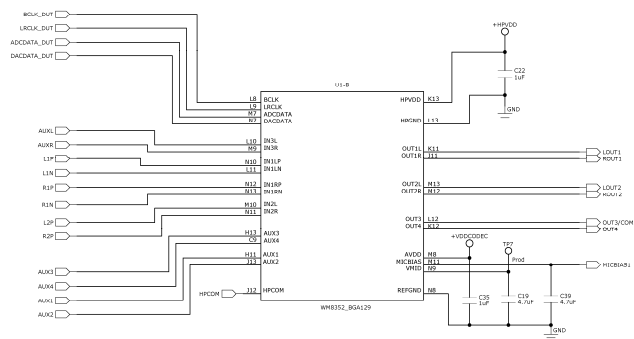


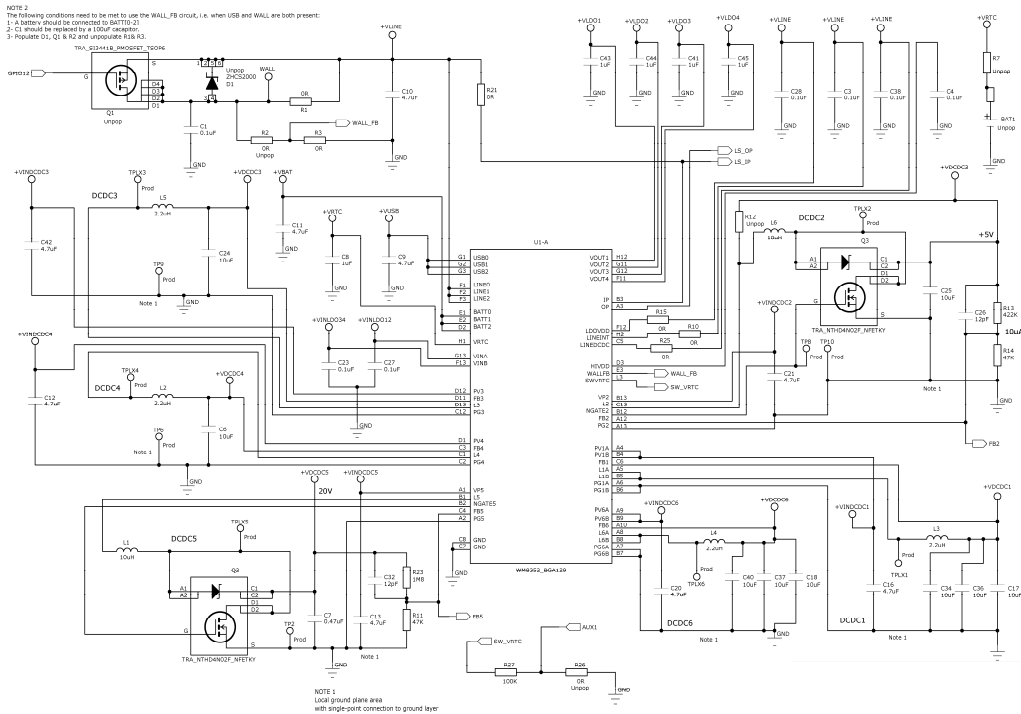
**WM8352-6143-EB129-M-REV1**  
**Schematic and Layout**

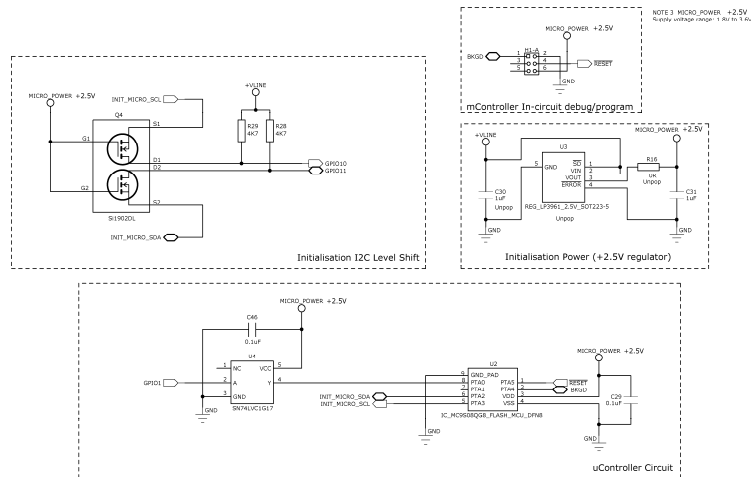
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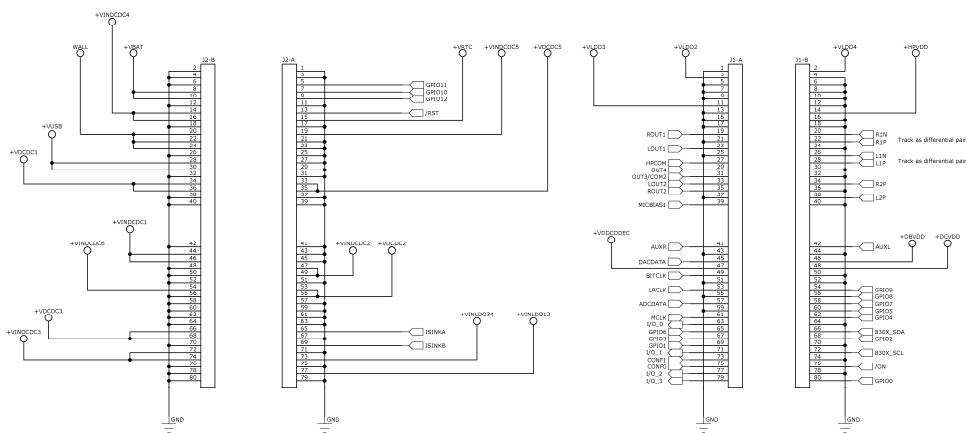
<b>DOC TYPE:</b>	SCHEMATIC AND LAYOUT
<b>BOARD REFERENCE:</b>	WM8352-6143-EB129-M-REV1
<b>BOARD TYPE:</b>	Customer Mini Board
<b>WOLFSON DEVICE(S):</b>	WM8352
<b>DATE:</b>	October 2008
<b>DOC REVISION:</b>	Rev 1.0

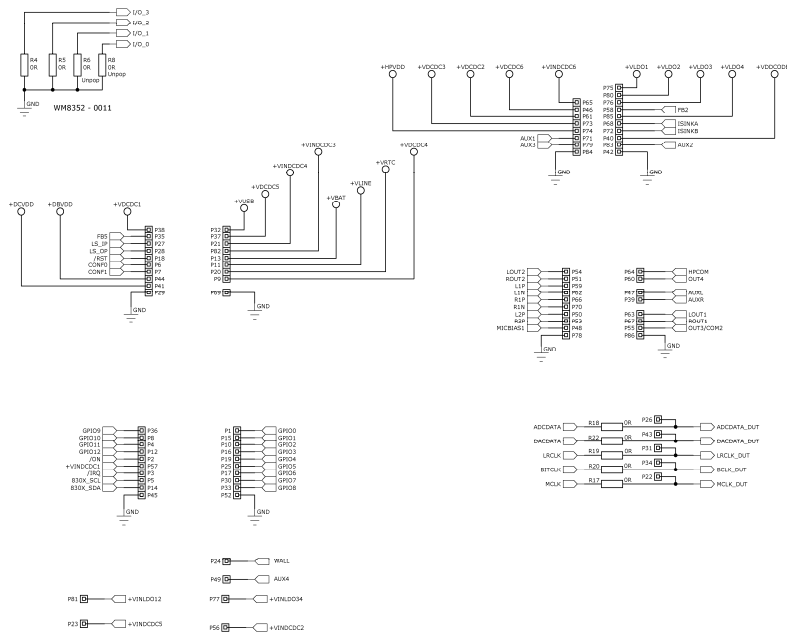




**Sheet 3: Regulators**








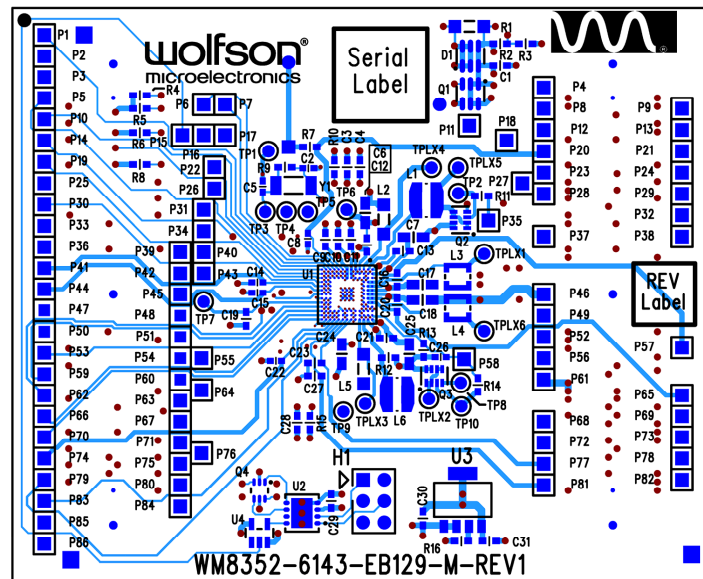
**BILL OF MATERIALS (BOM)**

<i>Item</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
1	L3 L4	2.2uH Shielded SM 1.4A Inductor LPS3010	Coilcraft	LPS3010-222ML
2	C6 C17 C18 C24 C25 C34 C36 C37 C40	10uF Low Profile 0805 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM219R60J106KE19D
3	C2 C5 C26 C32	12pF 0402 SMD Ceramic Capacitor 50V C0G	Murata	GRM1555C1H120JZ01D
4	C8 C14 C15 C22 C35 C41 C43 C44 C45	1uF 0402 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM155R60J105KE19D
5	C33	2.2uF 0603 SMD Ceramic Capacitor 10V X5R	Murata	GRM188R61A225KE34D
6	C7	0.47uF 0805 SMD Ceramic Capacitor 25V X7R	Murata	GRM21BR71E474KC01L
7	C9 C10 C11 C12 C13 C16 C19 C20 C21 C39 C42	4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM188R60J475KE19D
8	U2	MC9S08QG8 8 BIT Flash MCU	Freescale	MC9S08QG8MFQE
9	Q2 Q3	NTHD4N02F N-Channel FETKY	On Semiconductor	NTHD4N02FT1G
10	MISC1	Lead-free label, 15mm round	Brady	805794
11	H1	2X3 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9980345
12	P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 P14 P15 P16 P17 P18 P19 P20 P21 P22 P23 P24 P25 P26 P27 P28 P29 P30 P31 P32 P33 P34 P35 P36 P37 P38 P39 P40 P41 P42 P43 P44 P45 P46 P47 P48 P49 P50 P51 P52 P53 P54 P55 P56 P57 P58 P59 P60 P61 P62 P63 P64 P65 P66	1x1 2.54mm pitch PCB Pin Header VERTICAL	Harwin	M20-9990245
13	R13	422K 0603 SMD chip resistor 1% 0.063W	MULTICOMP	MC 0.063W 0603 1% 422K
14	Q4	Si1902DL N- Channel Dual MOSFET SC-70	Vishay Siliconix	Si1902DL-T1-E3
15	C1 C3 C4 C23 C27 C28 C29 C38 C46	0.1uF 0603 SMD Ceramic Capacitor 16V X7R	Phycomp	2238 786 15649
16	U4	SN74LVC1G17 Single Schmitt-Trigger Buffer SOT23-5	Texas Instruments	SN74LVC1G17DBVR
17	R23	1M8 0603 SMD chip resistor 1% 0.063W	Phycomp	2322 7046 1805
18	R24 R27	100K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 100K
19	R28 R29	4K7 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 4K7
20	R11 R14	47K 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 47K

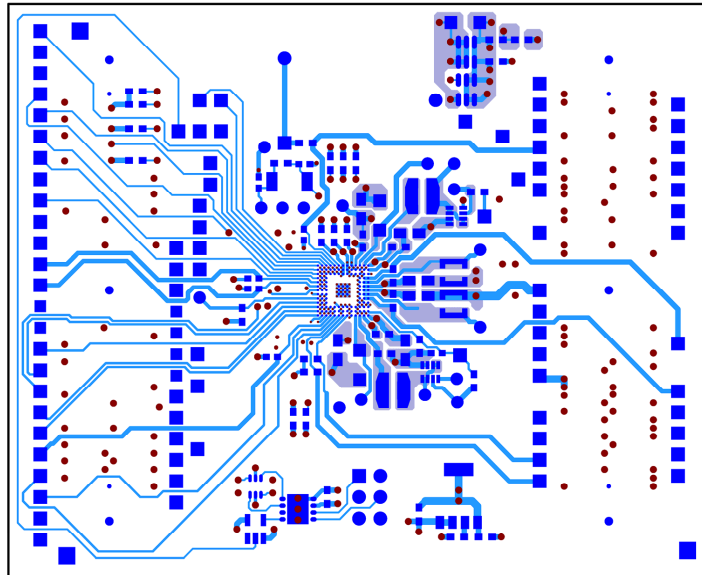


<i>Item</i>	<i>RefDes</i>	<i>Description</i>	<i>Manufacturer</i>	<i>Manufacturer's Part Number</i>
21	R3 R4 R5 R10 R15 R17 R18 R19 R20 R21 R22 R25	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
22	R1	0R 1206 SMD chip resistor	Multicomp	MC 0.125W 1206 0R
23	Y1	32.768kHz CC4V SM Crystal 9pF	Golledge	CC4V-T1A 32.768kHz
24	L2 L5	2.2uH 0.9A LQM31P_00 series 1206 Surface Mount Inductor	Murata	LQM31PN2R2M00
25	C31	1uF 0603 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM188R60J105KA01D
26	L1 L6	10uH Shielded SM 0.7A Inductor NR4012	Taiyo Yuden	NR4012T100M
27	PCB1	PCB	Kelan Circuits Ltd	WM8352-6143-EB129-M-REV1
28	U1	WM8352 AudioPlus Stereo CODEC with Power Management	Wolfson Microelectronics	WM8352GEB
<b>Unpop</b>				
29	J1 J2	FSI-140 connector mating footprint		
30	TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TPLX1 TPLX2 TPLX3 TPLX4 TPLX5 TPLX6	1.0mm PCB Hole test point		
31	Q1	Si3441B P-Channel MOSFET TSOP6	Vishay	Si3441BDV-T1-E3
32	BAT1	ML2032 Rechargeable Lithium cell	Maxell	ML 2032 T25
33	R9	10M 0603 SMD chip resistor 1% 0.063W	Phycomp	2322 7046 1006
34	R7	330R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 1% 330R
35	R2 R6 R8 R12 R16 R26	0R 0603 SMD chip resistor 1% 0.063W	Multicomp	MC 0.063W 0603 0R
36	D1	ZHCS2000 40V Schottky Diode SOT23-6	Zetex	ZHCS2000
37	U3	800mA Fast Ultra Low Dropout Linear Regulator	National Semiconductor	LP3961EMP-2.5
38	C30	1uF 0603 SMD Ceramic Capacitor 6.3V X5R	Murata	GRM188R60J105KA01D

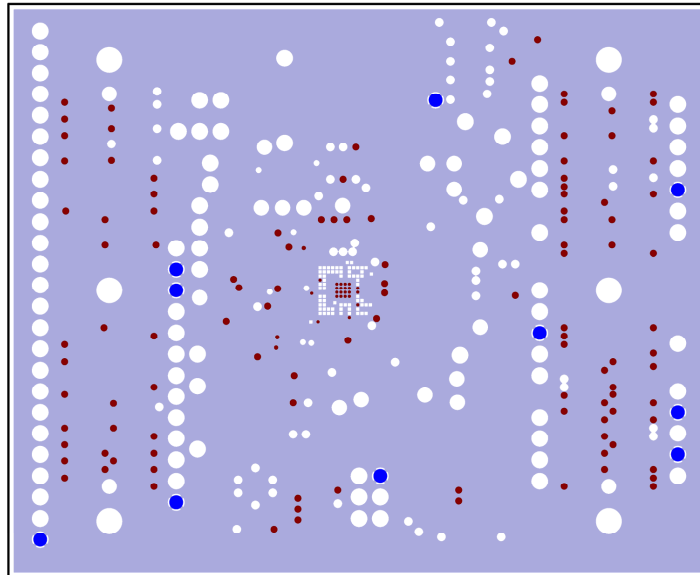
PCB LAYOUT



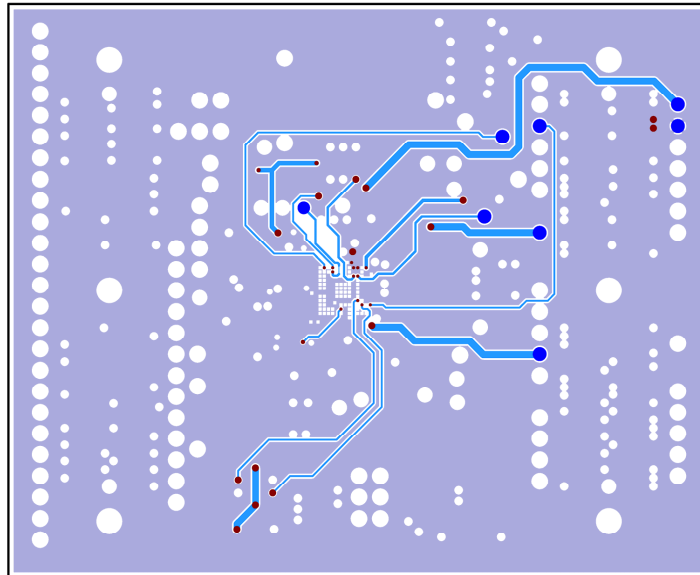
Top Layer: Silkscreen + Copper



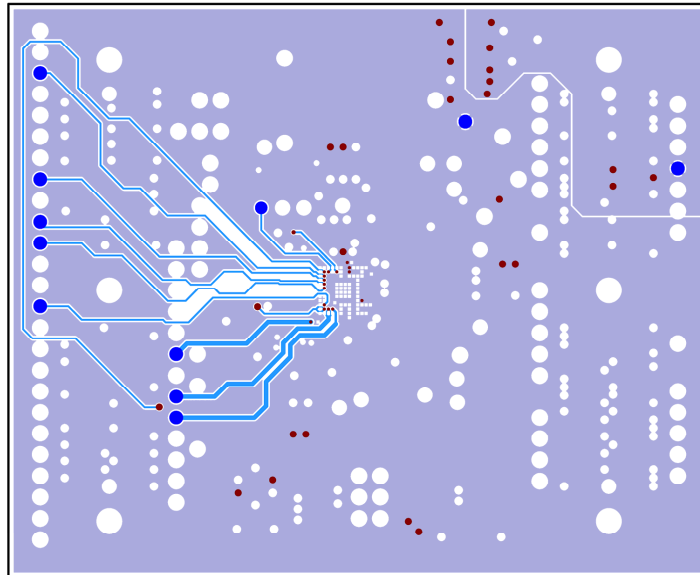
Top Layer: Copper



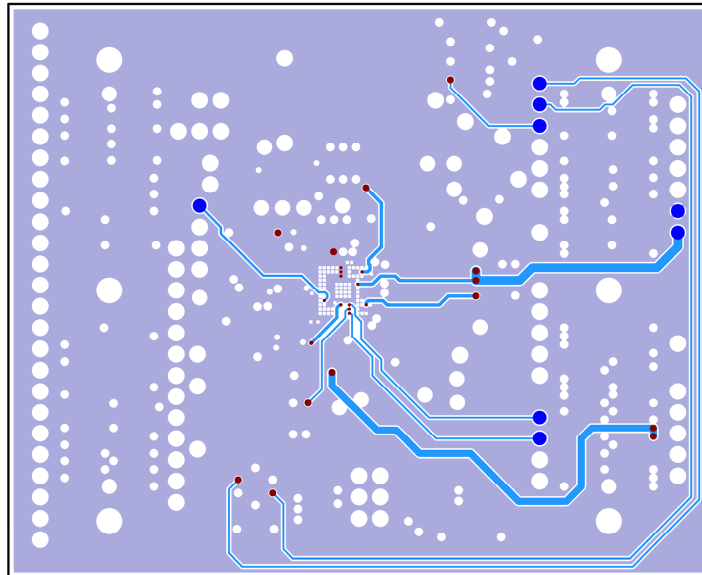
Layer 2: Copper



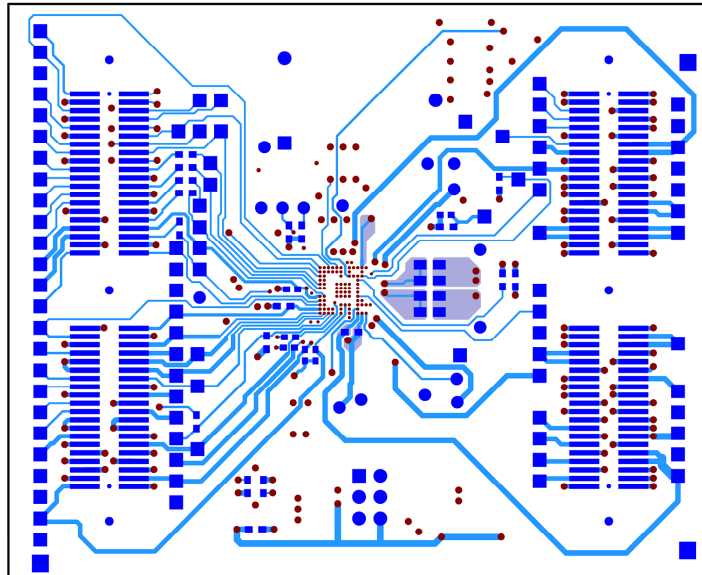
Layer 3: Copper



Layer 4: Copper

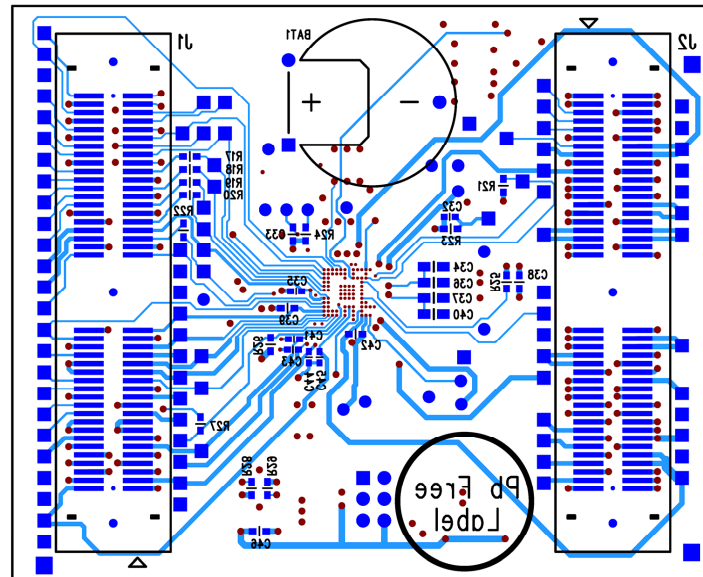


Layer 5: Copper



Bottom Layer: Copper





Bottom Layer: Silkscreen + Copper



## WM8352-6143-EB129-M-REV1 Schematic and Layout

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### 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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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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