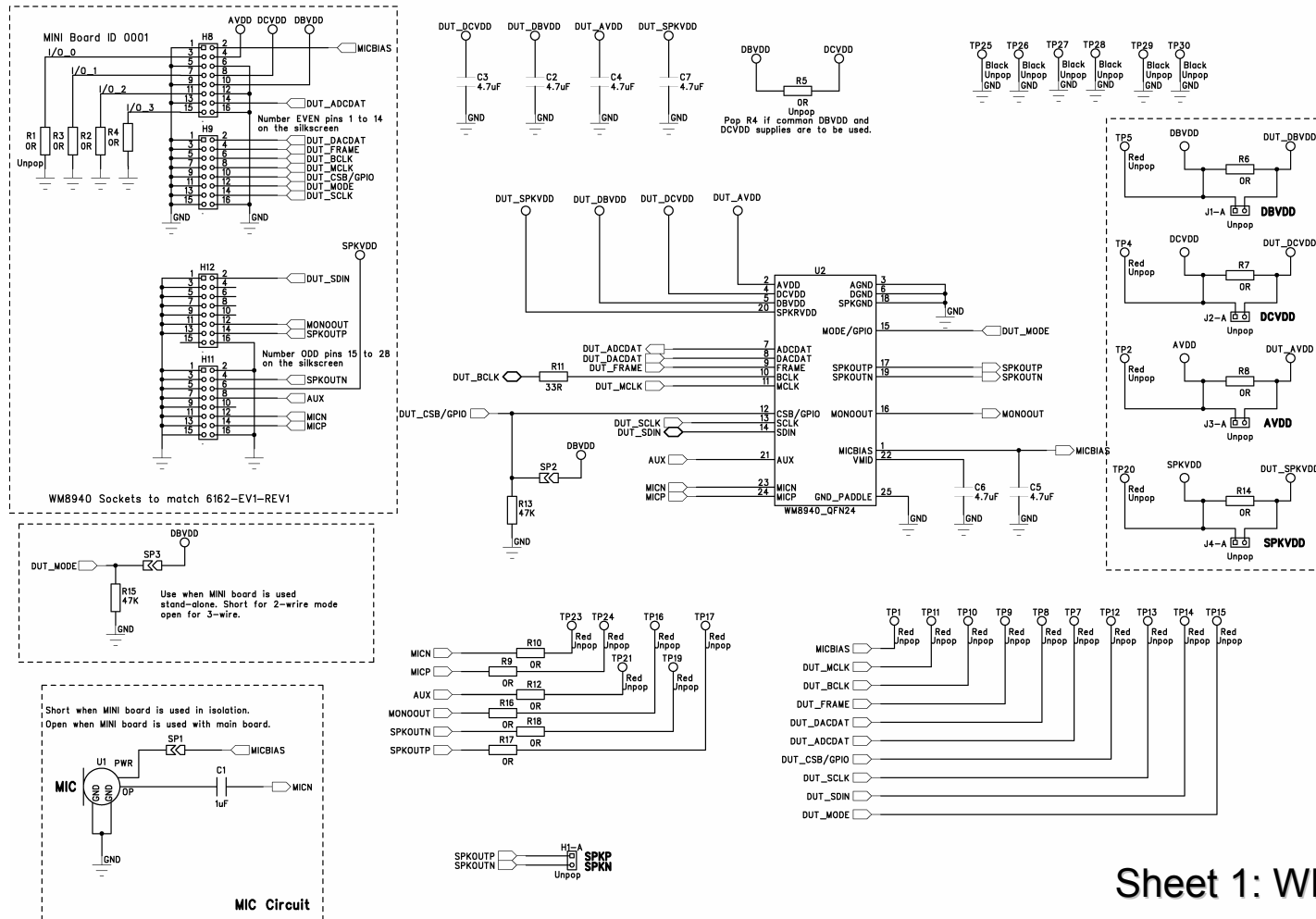


|                           |                         |
|---------------------------|-------------------------|
| <b>DOC TYPE:</b>          | Schematic and Layout    |
| <b>BOARD REFERENCE:</b>   | WM8940-6162-FL24-M-REV3 |
| <b>BOARD TYPE:</b>        | Customer Mini           |
| <b>WOLFSON DEVICE(S):</b> | WM8940                  |
| <b>DATE:</b>              | April 2008              |
| <b>DOC REVISION:</b>      | Rev 1.0                 |

**Schematic**

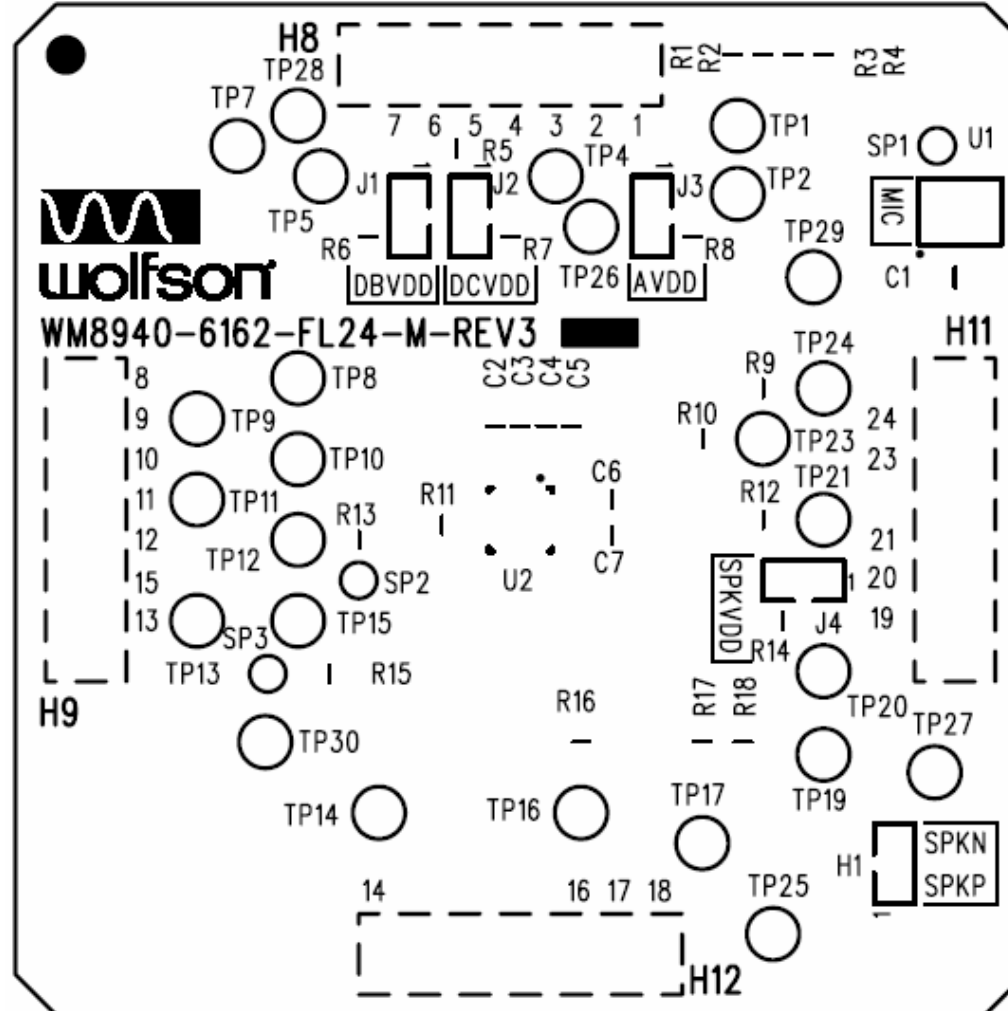


**Bill Of Materials (BOM)**

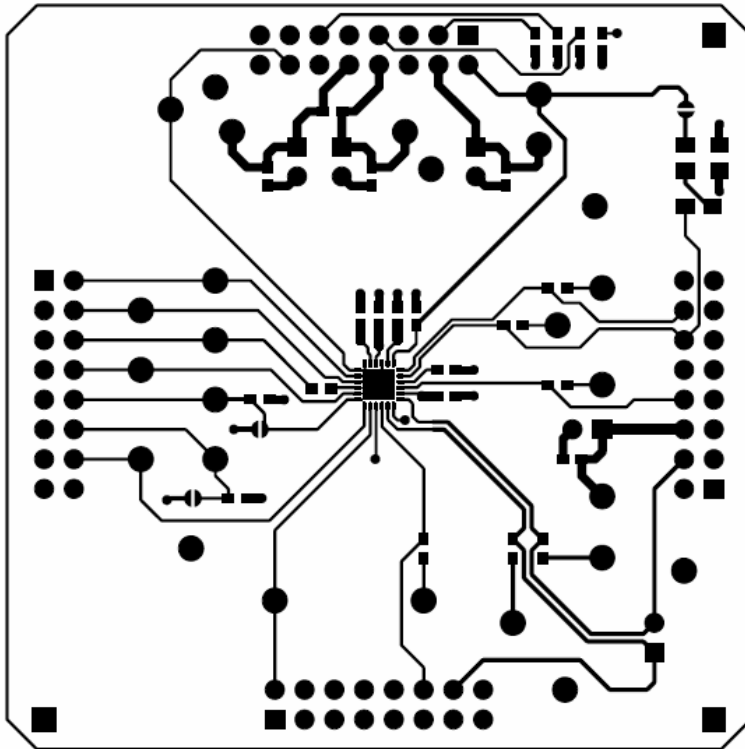
| <i>Item</i>  | <i>RefDes</i>  | <i>Description</i>                            | <i>Manufacturer</i>      | <i>Manufacturer's Part Number</i> |
|--------------|--|---|--------------------------|-----------------------------------|
| 1            | U1   | Silicon Surface Mount Microphone, Unamplified | Knowles Acoustics        | SPM0102NE3-2                      |
| 2            | C2 C3 C4 C5 C6 C7  | 4.7uF 0603 SMD Ceramic Capacitor 6.3V X5R     | Murata                   | GRM188R60J475KE19D                |
| 3            | R11  | 33R 0603 SMD chip resistor 1% 0.063W          | Multicomp                | MC 0.063W 0603 1% 33R             |
| 4            | R13 R15  | 47K 0603 SMD chip resistor 1% 0.063W          | Multicomp                | MC 0.063W 0603 1% 47K             |
| 5            | R2 R3 R4 R6 R7 R8 R9 R10 R12 R14 R16 R17 R18   | 0R 0603 SMD chip resistor 1% 0.063W           | Multicomp                | MC 0.063W 0603 0R                 |
| 6            | C1   | 1uF 0805 SMD Ceramic Capacitor 10V X7R        | Multicomp                | N0805R105KCT                      |
| 7            | H8 H9 H11 H12  | 2x8 2.54mm pitch PCB Socket Strip VERTICAL    | SAMTEC                   | SSQ-108-02-G-D                    |
| 8            | PCB1   | PCB   | Wolfson Microelectronics | WM8940-6162-FL24-M REV3           |
| 9            | U2   | WM8940 Mono Codec with Speaker Driver         | Wolfson Microelectronics | WM8940GEFLV                       |
| <b>Unpop</b> |  |   |                          |                                   |
| 10           | H1 J1 J2 J3 J4   | 1x2 PCB Pin Header 0.1" VERTICAL              | Harwin                   | M20-9990245                       |
| 11           | TP25 TP26 TP27 TP28 TP29 TP30  | 1.32mm PCB Test Terminal BLACK                | VERO                     | 20-2136                           |
| 12           | TP1 TP2 TP4 TP5 TP7 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP19 TP20 TP21 TP23 TP24 | 1.32mm PCB Test Terminal RED                  | Vero                     | 20-313141                         |

**Layout**

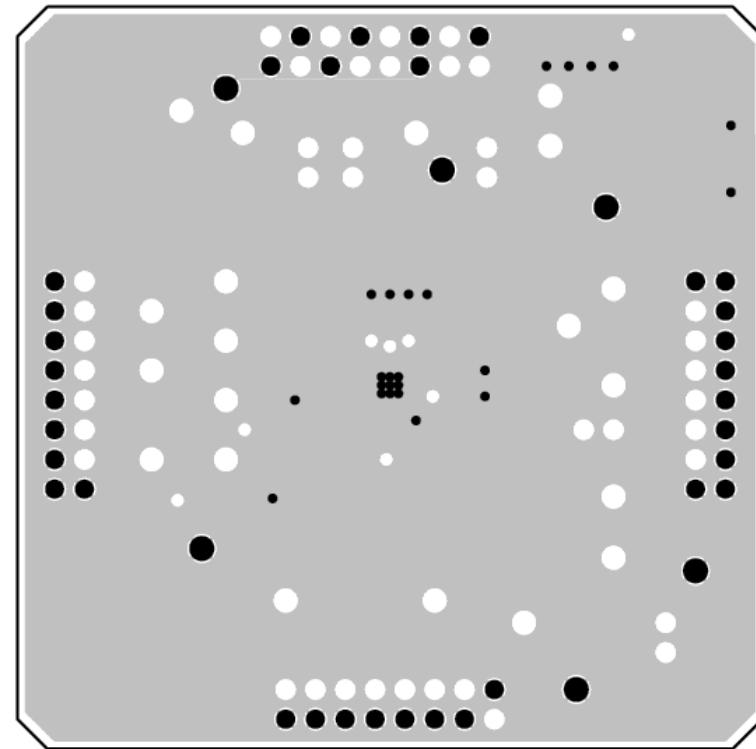
Top Silkscreen



**Layout**

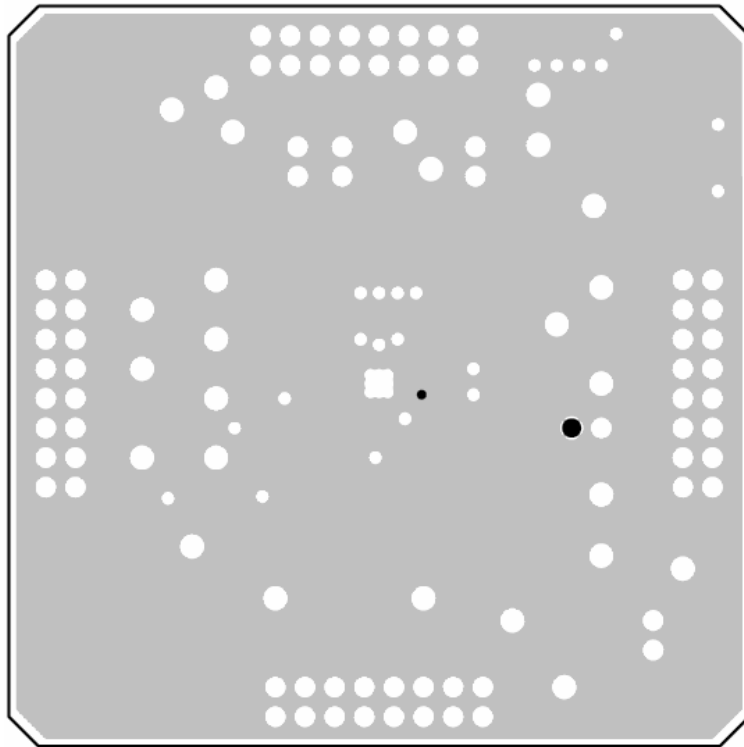


Top Layer

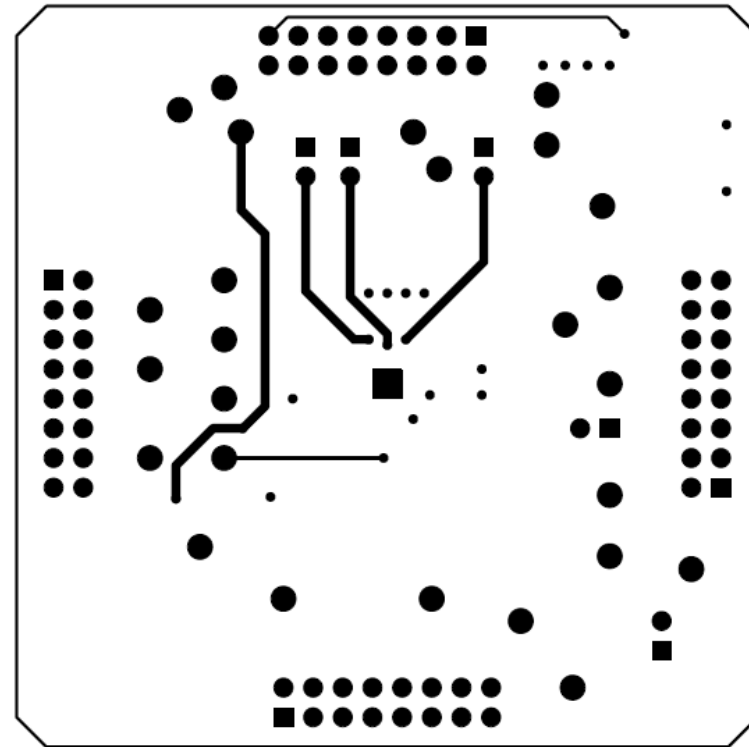


Layer 2  
GND Plane

**Layout**



Layer 3  
POWER Plane



Bottom Layer

## 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>

## 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](mailto:apps@wolfsonmicro.com)