GENERAL DESCRIPTION

The OEM-boards can be used in applications where surface mounted assembly is not possible or where fast and easy setup of a prototype application is necessary. All OEM-boards can be delivered with the corresponding pin socket for easy attachment onto a custom motherboard.

TECHNICAL DESCRIPTION

The OEM-board has an onboard voltage monitoring IC and decoupling capacitors for the power supplies.
One 40-pin header is present on all OEM-boards and have all necessary pins routed out from the Bluetooth module. The multimedia modules also have a 14-pin header to connect stereo speakers and microphone.
Note that all pins on the header are not connected to the module; please use the full datasheet for each module and firmware for more information about the functionality of the available pins on the pin header.

40-pin header (all OEM-boards)

Pin nr	Description	Direction
1	+VCC_BT	Power
2	GND	GND
3	+VCC_PA	Power
4	SPI_CLK	I/O
5	/RESET	IN
6	SPI_MISO	I/O
7	GND	GND
8	SPI_MOSI	I/O
9	TX	OUT
10	SPI_CSB	I/O
11	RX	IN
12	GND	GND
13	CTS	OUT
14	PCM_CLK	I/O
15	RTS	IN
16	PCM_OUT	OUT
17	USB-	I/O
18	PCM_SYNC	I/O
19	USB+	I/O
20	PCM_IN	IN
21	GND	GND
22	GND	GND
23	PIO[5]	GPIO
24	PIO[6]	GPIO
25	PIO[4]	GPIO
26	PIO[7]	GPIO
27	PIO[3]	GPIO
28	PIO[8]	GPIO
29	PIO[2]	GPIO
30	PIO[9]	GPIO
31	PIO[1]	GPIO
32	PIO[10]	GPIO
33	PIO[0]	GPIO
34	PIO[11]	GPIO
35	GND	GND
36	GND	GND
37	AIO[0]	GPIO
38	AIO[3]	GPIO
39	AIO[1]	GPIO
40	AIO[2]	GPIO

14-pin header (only multimedia modules)

Pin nr	Description	Direction
1	GND	GND
2	GND	GND
3	IN_N_R	IN
4	OUT_P_R	OUT
5	IN_P_R	IN
6	OUT_N_R	OUT
7	GND	GND
8	GND	GND
9	IN_N_L	IN
10	OUT_P_L	OUT
11	IN_P_L	IN
12	OUT_N_L	OUT
13	AUX_DAC	OUT
14	GND	GND

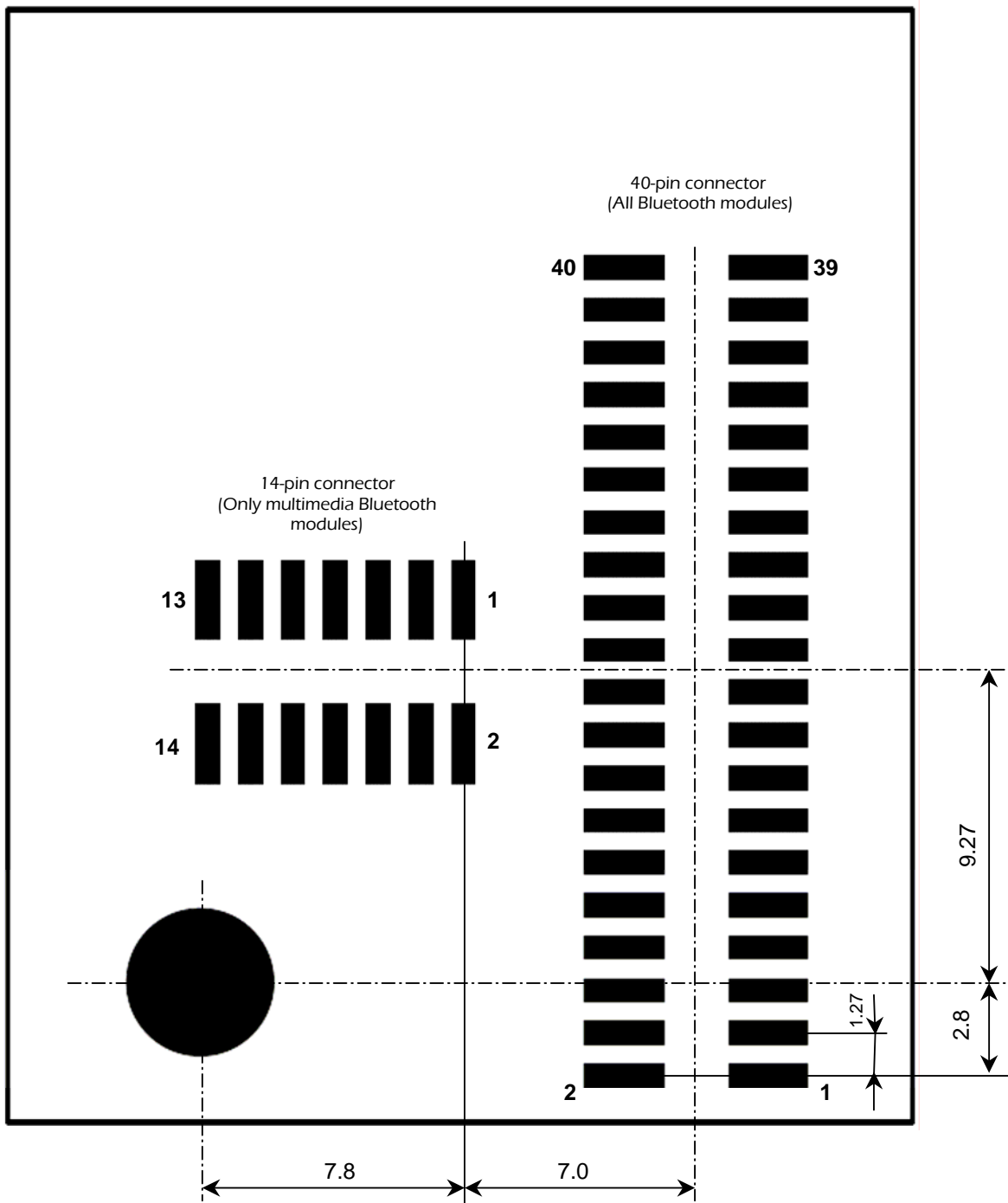| Connector information		
Part	Partnr.	Manufacturer
40-pin header	BB02-BS401-KB5-030B00	Gradconn
14-pin header	BB02-BS141-KB5-030B00	Gradconn
40-pin socket	BB02-CR402-K05-000000	Gradconn
14-pin socket	BB02-CR142-K05-000000	Gradconn

Pitch: 1.27mm

Image of F2M02GLA
(top view)

Image of F2M02MLA
(bottom view)

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LAYOUT

bottom view [mm]

40-pin connector
(All Bluetooth modules)

14-pin connector
(Only multimedia Bluetooth
modules)

40   39

13   1

14   2

9.27

1.27

2.8

2   1

7.8   7.0

Bluetooth™

ORDERING INFORMATION

Bare OEM-boards

Part nr.	Description
F2M02MLA-S03	OEM-board with F2M03MLA Bluetooth module, Wireless Audio firmware
F2M02GLA-S01	OEM-board with F2M03GLA Bluetooth module, Wireless UART v4 firmware
F2M02GX-S01	OEM-board with F2M03GX Bluetooth module, Wireless UART v4 firmware
F2M02GXA-S01	OEM-board with F2M03GXA Bluetooth module, Wireless UART v4 firmware

OEM-boards with additional connectors (and antenna)

Part nr.	Description
F2M02MLA-S03-K	OEM-board with F2M03MLA, Wireless Audio, 14 and 40pin sockets
F2M02GLA-S01-K	OEM-board with F2M03GLA, Wireless UART v4, 40pin socket
F2M02GX-S01-K	OEM-board with F2M03GX, Wireless UART v4, 40pin socket, monopole antenna
F2M02GXA-S01-K	OEM-board with F2M03GXA, Wireless UART v4, 40pin socket