

PicoMOD1

Hardware

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Preliminary

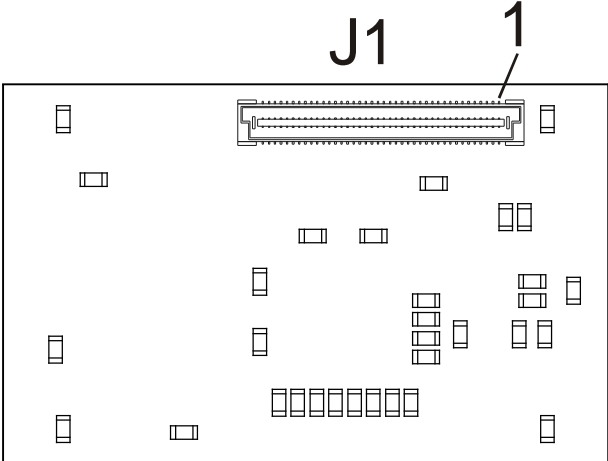
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1 Arrangement of Connectors

Figure 1.1: Bottom View



2 Technical Data Connectors

PicoMOD1 is equipped with a Tyco/AMP 5177984-3 (80 Pin, 0,8mm) connector.

Adapted connectors are:

5mm: Tyco/AMP 5177983-3

9mm: Tyco/AMP 5-5179009-3

13mm: Tyco/AMP 5-5179010-3

3 Connectors

3.1 Counting of the connector pins

The connector plug of PicoMOD1 will be treated as follows.

Pin 1 is marked in Figure 1.1. The row with pin1 contains all odd-numbered pins (1, 3, 5, 7 etc.), and corresponding to this, the row without pin 1 contains all even-numbered pins (2, 4, 6, 8 etc.).


3.2 Connector J1

J1			
Pin	Signal	Default Interface	Starter-Kit Interface
1	TX-	Ethernet TX-	Ethernet TX-
2	RX-	Ethernet RX-	Ethernet RX-
3	TX+	Ethernet TX+	Ethernet TX+
4	RX+	Ethernet RX+	Ethernet RX+
5	V33	+3,3V \pm 5% DC	+3,3V \pm 5% DC
6	V33	+3,3V \pm 5% DC	+3,3V \pm 5% DC
7	GND	GND	GND
8	GND	GND	GND
9	VBAT	+3V...+3,6V DC (Battery buffering RTC) (**)	+3V...+3,6V DC (Battery buffering RTC)
10	/PONRES	Prozessor Reset	Prozessor Reset
11	IO0	I/O-Pin 0	COM 2 RXD
12	IO1	I/O-Pin 1	COM2 TXD
13	IO2	I/O-Pin 2	COM2 CTS
14	IO3	I/O-Pin 3	COM2 RTS
15	IO4	COM1 RXD	COM1 RXD
16	IO5	COM1 TXD	COM1 TXD
17	IO6	I/O-Pin 6	COM3 RXD
18	IO7	I/O-Pin 7	COM3 TXD
19	DN0	USB Host -	USB Host -
20	DN1	USB Device -	USB Device -
21	DP0	USB Host +-	USB Host +-
22	DP1	USB Device +	USB Device +
23	IO8	I/O-Pin 8	USB Host Power

J1			
Pin	Signal	Default Interface	Starter-Kit Interface
24	IO9	I/O-Pin 9	GPIO5/EXTINT
25	IO10	I/O-Pin 10	USB Device Detect
26	IO11	I/O-Pin 11	I2C SDA
27	IO12	I/O-Pin 12	I2C SCL
28	TCK	JTAG Clock	JTAG Clock
29	TDI	JTAG Data In	JTAG Data In
30	TDO	JTAG Data Out	JTAG Data Out
31	TMS	JTAG TMS	JTAG TMS
32	/TRST	JTAG Reset	JTAG Reset
33	GND	GND	GND
34	GND	GND	GND
35	IO13	I/O-Pin 13	RS485 Send/Receive/GPIO0
36	IO14	I/O-Pin 14	GPIO1
37	IO15	I/O-Pin 15	GPIO2
38	IO16	I/O-Pin 16	GPIO3
39	IO17	I/O-Pin 17	GPIO4
40	IO18	I/O-Pin 18	SD-CARD CLK
41	IO19	I/O-Pin 19	SD-CARD CMD
42	IO20	I/O-Pin 20	SD-CARD DAT0
43	IO21	I/O-Pin 21	SD-CARD DAT1
44	IO22	I/O-Pin 22	SD-CARD DAT2
45	IO23	I/O-Pin 23	SD-CARD DAT3
46	IO24	I/O-Pin 24	SD-CARD Detect
47	IO25	I/O-Pin 25	Touch Interrupt
48	IO26	I/O-Pin 26	SD-CARD Write Protect
49	IO27	I/O-Pin 27	LCD Enable

J1			
Pin	Signal	Default Interface	Starter-Kit Interface
50	IO28	I/O-Pin 28	LCD DEN
51	IO29	I/O-Pin 29	VLCD On
52	IO30	I/O-Pin 30	VCFL On
53	IO31	I/O-Pin 31	LCD VEEK
54	GND	GND	GND
55	GND	GND	GND
56	VIO0	I/O-Pin 32	LCD
57	VIO1	I/O-Pin 33	LCD
58	VIO2	I/O-Pin 34	LCD
59	VIO3	I/O-Pin 35	LCD
60	VIO4	I/O-Pin 36	LCD
61	VIO5	I/O-Pin 37	LCD
62	VIO6	I/O-Pin 38	LCD
63	VIO7	I/O-Pin 39	LCD
64	VIO8	I/O-Pin 40	LCD
65	VIO9	I/O-Pin 41	LCD
66	VIO10	I/O-Pin 42	LCD
67	VIO11	I/O-Pin 43	LCD
68	VIO12	I/O-Pin 44	LCD
69	VIO13	I/O-Pin 45	LCD
70	VIO14	I/O-Pin 46	LCD
71	VIO15	I/O-Pin 47	LCD
72	VIO16	I/O-Pin 48	LCD
73	VIO17	I/O-Pin 49	LCD
74	VIO18	I/O-Pin 50	LCD
75	VIO19	I/O-Pin 51	LCD

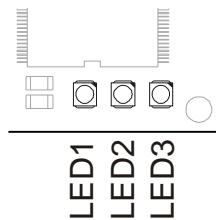
J1			
Pin	Signal	Default Interface	Starter-Kit Interface
76	VIO20	I/O-Pin 52	LCD
77	GND	GND	GND
78	GND	GND	GND
79	VIO21	I/O-Pin 53	LCD
80	GND	GND	GND

(**)  Can be left out depending on application.

4 Status Indicators

The PicoMOD1 comprises three LED status indicators. They are located on the top side of the board.

Figure 4.1: Status LED



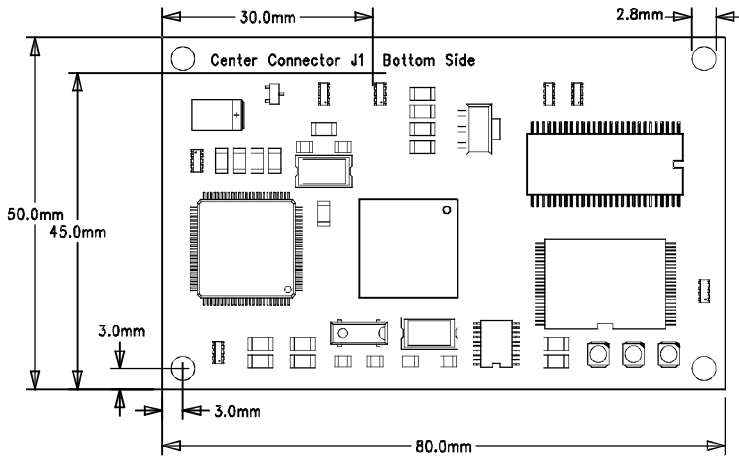
The following status information is displayed:

Status LED		
LED	Signal	Function
1	ETH	Ethernet: connection online
2	STA	Status indicators (see SW documentation)
3	RUN	CPU in Run-Mode

5 Dimensions PicoMOD1

Board thickness:	1,5 mm
Hight of parts on top side:	3,0 mm
Hight of parts on bottom side (without connectors):	2,0 mm
Pin grid of connectors:	0,8 mm

Figure 5.1: Top View



All values can have tolerances of $\pm 0,5$ mm.

6 Technical Data PicoMOD1

Power Supply:	+3,3V _{DC} / ±5%
Current Consumption:	<0,5A
Inputs/Outputs:	max. 53 I/O ports
Interfaces:	3x RS232 (1x with RTS/CTS) 2x USB1.1 (1x Host / 1xDevice) 1x Ethernet 10/100 Mbit (Optional)
LCD Interface:	STN: up to 640x480 Pixel Single/Dual Scan 16 gray scales CSTN: up to 640x480 Pixel Single / Dual Scan 256 Colors from 65536 TFT: up to 640x480 Pixel 256 / 65536 colors
RAM:	32 MByte SDRAM Optional: 64 MByte
Flash:	32 MByte Flash Optional: 64/128 MByte
CPU:	Samsung S3C2440 400 MHz
Operating Temperature:	0°C . . . +70°C Optional: -25°C . . . +85°C
Dimensions:	80 x 50 x 10 mm (l x b x d)
Weight:	50 gr.

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