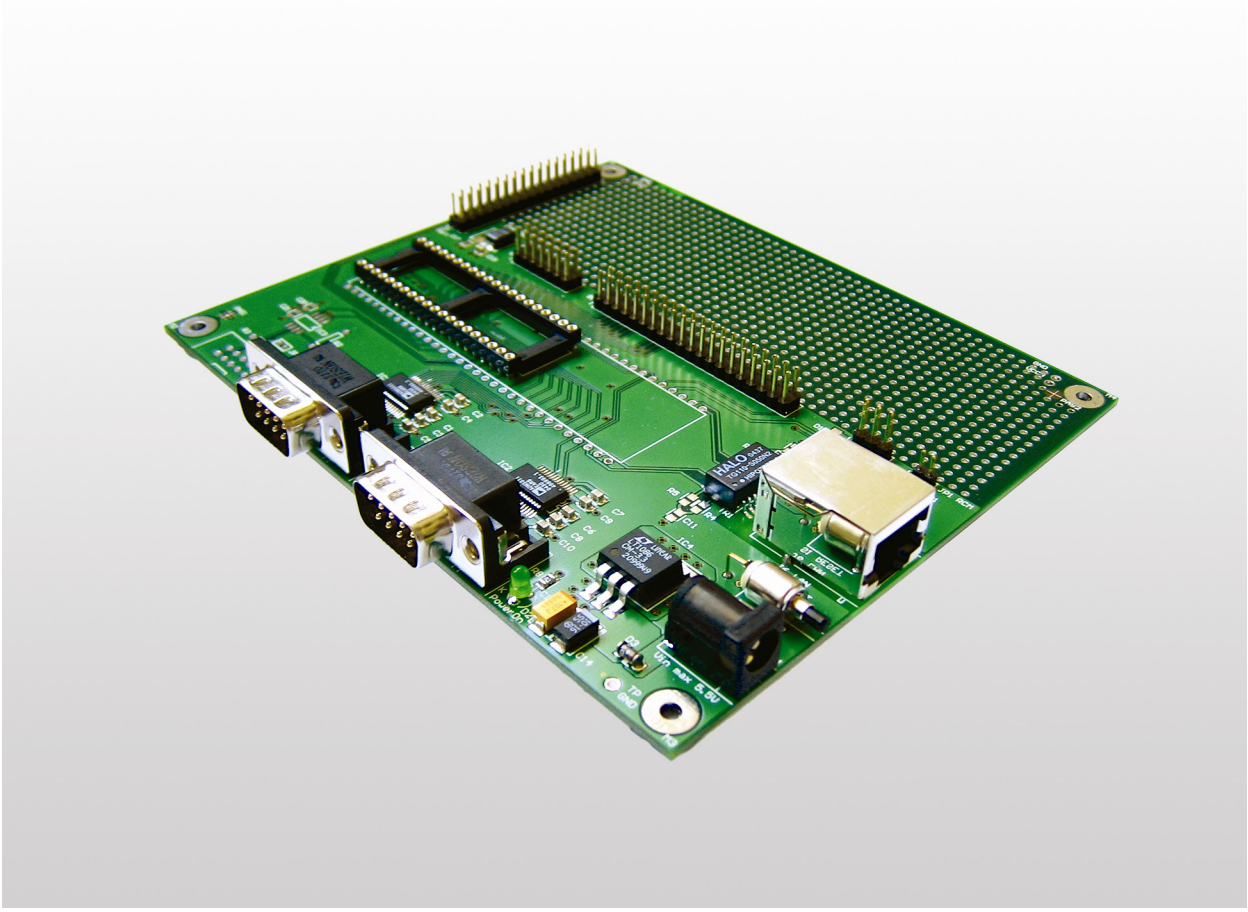
DNP/EVA6-SV1

Board Revision 1.1

Hardware Reference



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For further information regarding our products please visit us at www.dilnetpc.com

CONTENT

1 INTRODUCTION

This document describes the hardware components of the DNP/EVA6. For further information about the individual components of this product you may follow the links from our website at http://www.dilnetpc.com. Our website contains a lot of technical information, which will be updated in regular periods.

Figure 1 shows the block diagram of the DNP/EVA6.

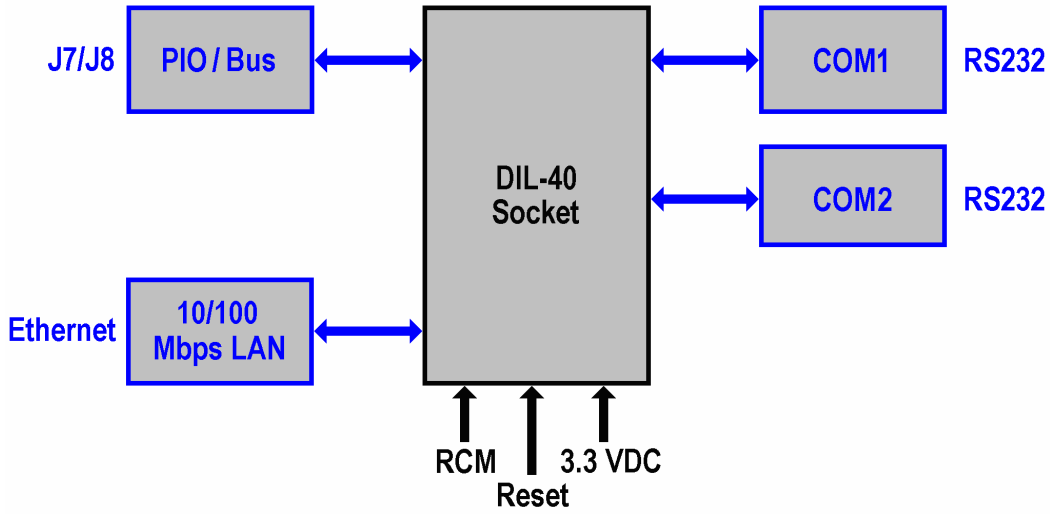


Figure 1: Block diagram of DNP/EVA6

1.1 Features Evaluation Board DNP/EVA6

- One 40-pin DIL socket for a DIL/NetPC
- Two serial interfaces (RS232)
- One 10/100Mbps Ethernet interface
- One reset switch
- One 5 V DC power input connector
- Prototype-area

2 BOARD LAYOUT

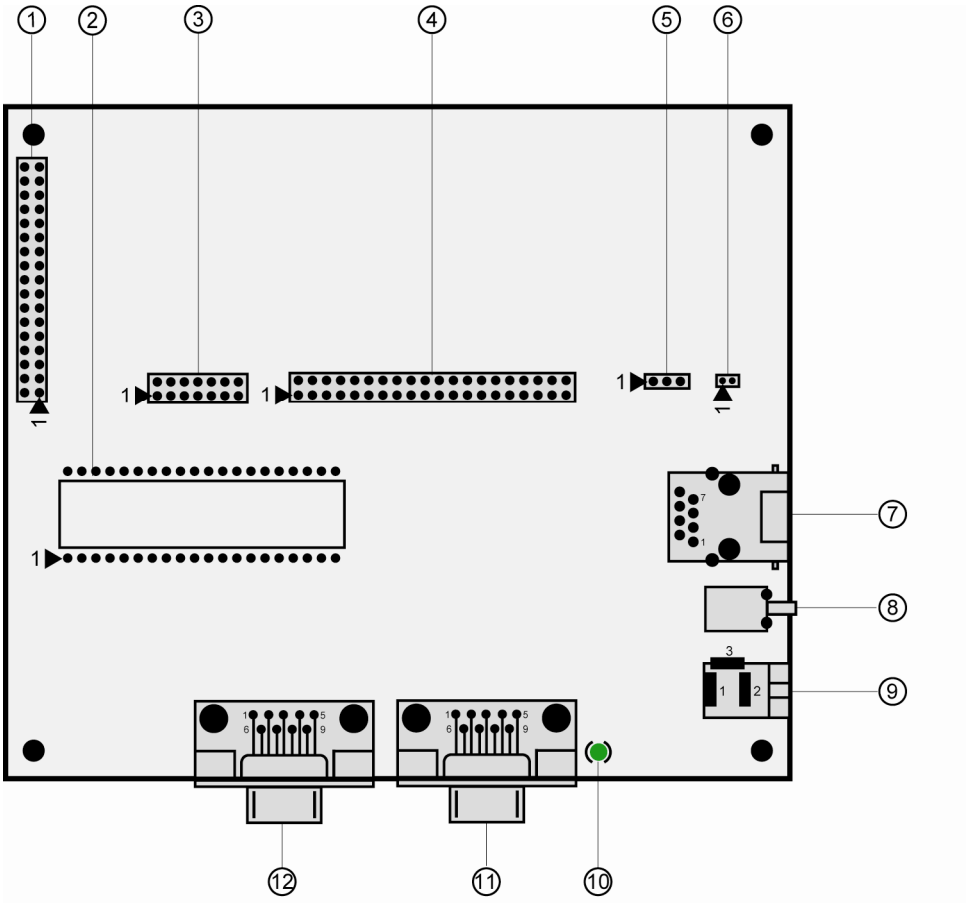


Figure 2: Board layout DNP/EVA6

3 PINOUTS

3.1 40-pin DIL Socket – J1

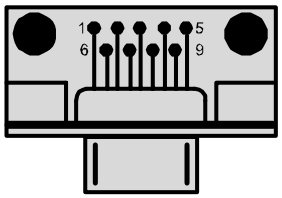
Pin	Name	Group	Function
1	PA0	GPIO	Parallel I/O, Port A, Bit 0
2	PA1	GPIO	Parallel I/O, Port A, Bit 1
3	PA2	GPIO	Parallel I/O, Port A, Bit 2
4	PA3	GPIO	Parallel I/O, Port A, Bit 3
5	PA4	GPIO	Parallel I/O, Port A, Bit 4
6	PA5	GPIO	Parallel I/O, Port A, Bit 5
7	PA6	GPIO	Parallel I/O, Port A, Bit 6
8	PA7	GPIO	Parallel I/O, Port A, Bit 7
9	SD0	GPE	Expansion Bus, Data Bit 0
10	SD1	GPE	Expansion Bus, Data Bit 1
11	SD2	GPE	Expansion Bus, Data Bit 2
12	SD3	GPE	Expansion Bus, Data Bit 3
13	SD4	GPE	Expansion Bus, Data Bit 4
14	SD5	GPE	Expansion Bus, Data Bit 5
15	SD6	GPE	Expansion Bus, Data Bit 6
16	SD7	GPE	Expansion Bus, Data Bit 7
17	RESIN	---	Reset Input
18	CS1#	GPE	Expansion Bus, Chip Select Output 1 (Low Active)
19	CS2#	GPE	Expansion Bus, Chip Select Output 2 (Low Active)
20	GND	---	Ground
21	RCM	GPIO	RCM (Remote Console Mode) Input
22	TX+	LAN	10/100 Mbps LAN, TX+ Pin
23	TX-	LAN	10/100 Mbps LAN, TX- Pin
24	RX+	LAN	10/100 Mbps LAN, RX+ Pin
25	RX-	LAN	10/100 Mbps LAN, RX- Pin
26	TXD2	SIO	COM2 Serial Port, TXD Pin
27	RXD2	SIO	COM2 Serial Port, RXD Pin
28	---	---	Not connected
29	VCCOUT	SIO	3.3 VDC Output
30	DSR1	SIO	COM1 Serial Port, DSR Pin
31	DCD1	SIO	COM1 Serial Port, DCD Pin
32	RTS1	SIO	COM1 Serial Port, RTS Pin
33	CTS1	SIO	COM1 Serial Port, CTS Pin
34	TXD1	SIO	COM1 Serial Port, TXD Pin
35	RXD1	SIO	COM1 Serial Port, RXD Pin
36	SA0	GPE	Expansion Bus, Address Bit 0
37	SA1	GPE	Expansion Bus, Address Bit 1
38	WR#	GPE	Expansion Bus, Write Signal (Low Active)
39	RD#	GPE	Expansion Bus, Read Signal (Low Active)
40	VCC	---	3.3 Volt Power Input

Table 1: Pinout 40-pin DIL connector

3.2 COM1 Connector – J3

Pin	Name	Function
1	DCD	COM1 Serial Port, DCD pin
2	RXD	COM1 Serial Port, RXD pin
3	TXD	COM1 Serial Port, TXD pin
4	DTR	Fixed to VCC
5	GND	Ground
6	DSR	COM1 Serial Port, DSR pin
7	RTS	COM1 Serial Port, RTS pin
8	CTS	COM1 Serial Port, CTS pin
9	RI	Not connected to CPU

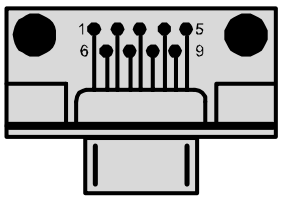
Table 2: Pinout COM1 connector



3.3 COM2 Connector – J4

Pin	Name	Function
1	DCD	not connected
2	RXD	COM2 Serial Port, RXD pin
3	TXD	COM2 Serial Port, TXD pin
4	---	not connected
5	GND	Ground
6	---	not connected
7	---	not connected
8	---	not connected
9	---	not connected

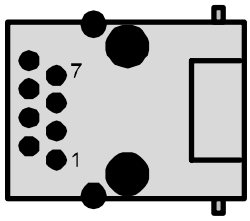
Table 3: Pinout COM2 connector



3.4 10/100 Mbps Ethernet Connector – J6

Pin	Name	Function
1	TX+	10/100 Mbps LAN, TX+ pin
2	TX-	10/100 Mbps LAN, TX- pin
3	RX+	10/100 Mbps LAN, RX+ pin
4	---	not connected
5	---	not connected
6	RX-	10/100 Mbps LAN, RX- pin
7	---	not connected
8	---	not connected

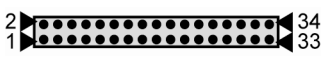
Table 4: Pinout 10/100 Mbps Ethernet connector



3.5 PIO/Bus signals 1 – J7

Pin	Name	Function
1	VCC	Power
2	GND	Ground
3	PA0	Parallel I/O, Port A, Bit 0
4	GND	Ground
5	PA1	Parallel I/O, Port A, Bit 1
6	GND	Ground
7	PA2	Parallel I/O, Port A, Bit 2
8	GND	Ground
9	PA3	Parallel I/O, Port A, Bit 3
10	---	Not connected
11	VCC	Power
12	GND	Ground
13	PA4	Parallel I/O, Port A, Bit 4
14	GND	Ground
15	PA5	Parallel I/O, Port A, Bit 5
16	GND	Ground
17	PA6	Parallel I/O, Port A, Bit 6
18	GND	Ground
19	PA7	Parallel I/O, Port A, Bit 7
20	---	Not connected
21	VCC	Power
22	GND	Ground
23	SD0	Expansion Bus, Data Bit 0
24	GND	Ground
25	SD1	Expansion Bus, Data Bit 1
26	GND	Ground
27	SD2	Expansion Bus, Data Bit 2
28	GND	Ground
29	SD3	Expansion Bus, Data Bit 3
30	GND	Ground
31	VCC	Power
32	GND	Ground
33	SD4	Expansion Bus, Data Bit 4
34	SD5	Expansion Bus, Data Bit 5

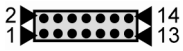
Table 5: Pinout PIO/Bus signals 1



3.6 PIO/Bus signals 2 – J8

Pin	Name	Function
1	VCC	Power
2	GND	Ground
3	SA0	Expansion Bus, Address Bit 0
4	GND	Ground
5	SA1	Expansion Bus, Address Bit 1
6	GND	Ground
7	WR#	Expansion Bus, Write Signal (Low Active)
8	GND	Ground
9	RD#	Expansion Bus, Read Signal (Low Active)
10	GND	Ground
11	CS1#	Expansion Bus, Chip Select Output 1 (Low Active)
12	GND	Ground
13	CS2#	Expansion Bus, Chip Select Output 2 (Low Active)
14	VCC	Power

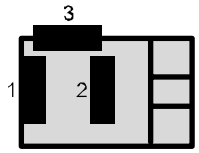
Table 6: Pinout PIO/Bus signals 2



3.7 Power Connector – J11

Pin	Name	Function
1	Vcc	Power In (max. 5.5 VDC)
2	GND	Ground
3	GND	Ground

Table 7: Pinout power connector



3.8 RCM Jumper – JP1

The **Remote Console Mode (RCM)** realizes some basic operating modes such as a boot loader or a ROM-monitor program.

Note: The default setting of the RCM jumper is not set. Only if the RCM jumper is set you will be able to boot µCLinux on the DIL/NetPC.

To activate RCM on the DIL/NetPC place a jumper cap on both pins of the RCM jumper, so that it is short. If you remove the jumper cap or place it on just one pin, the jumper is not set and you are not able to use RCM.

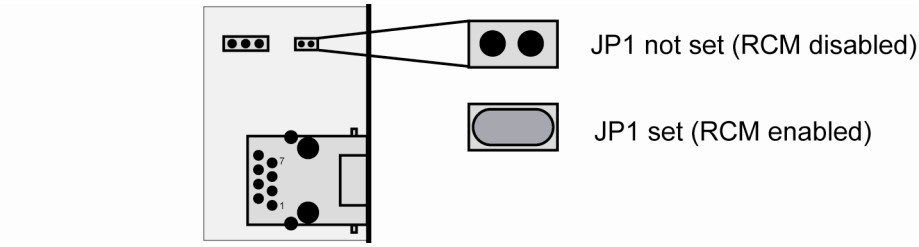


Figure 3: RCM jumper

4 MECHANICAL DIMENSIONS

All length dimensions have a tolerance of 0.5 mm.

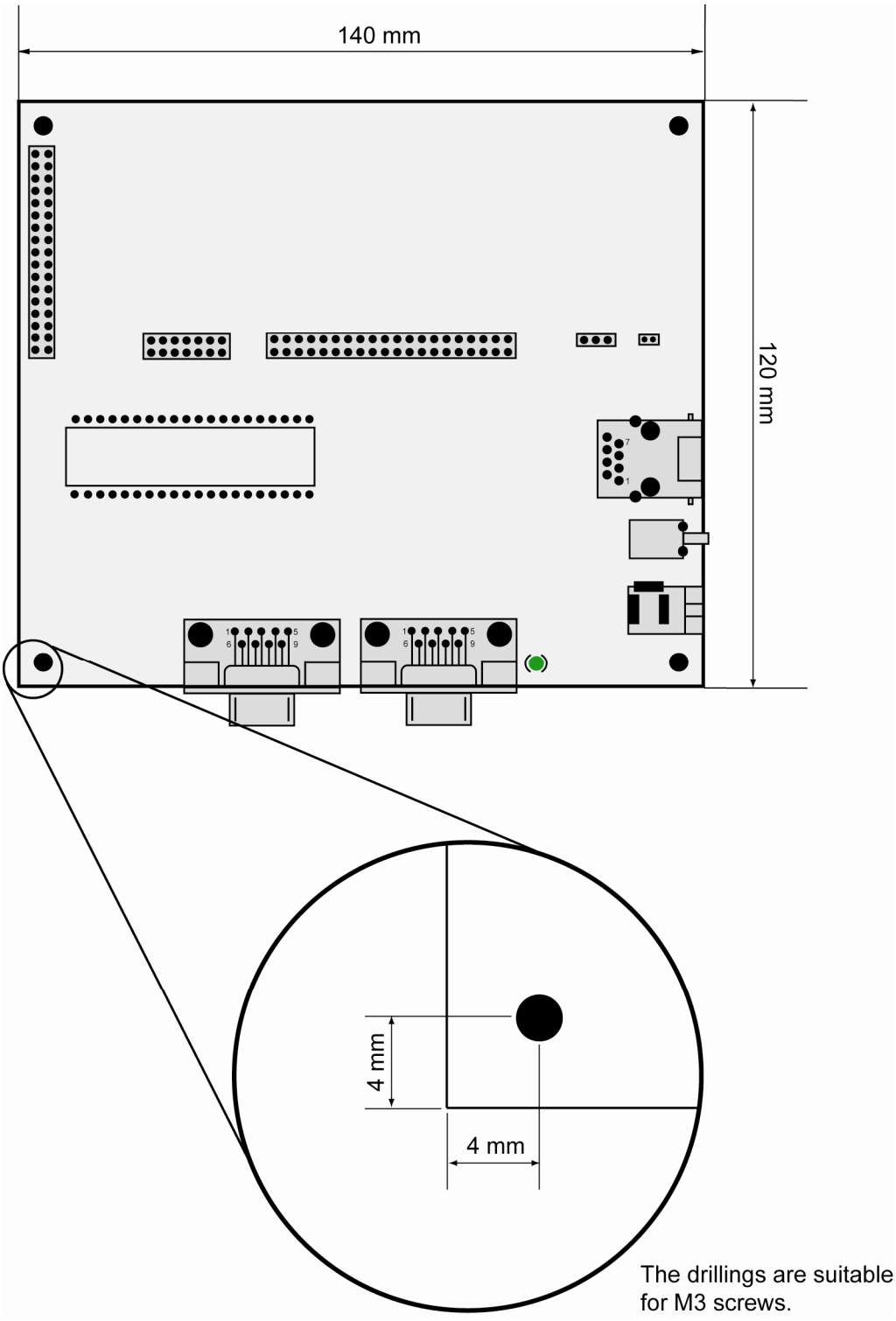


Figure 4: Mechanical dimensions of DNP/EVA6

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DOCUMENT HISTORY

Revision	Date	Remarks	Name
1.0	2005-08-11	first version	WBU