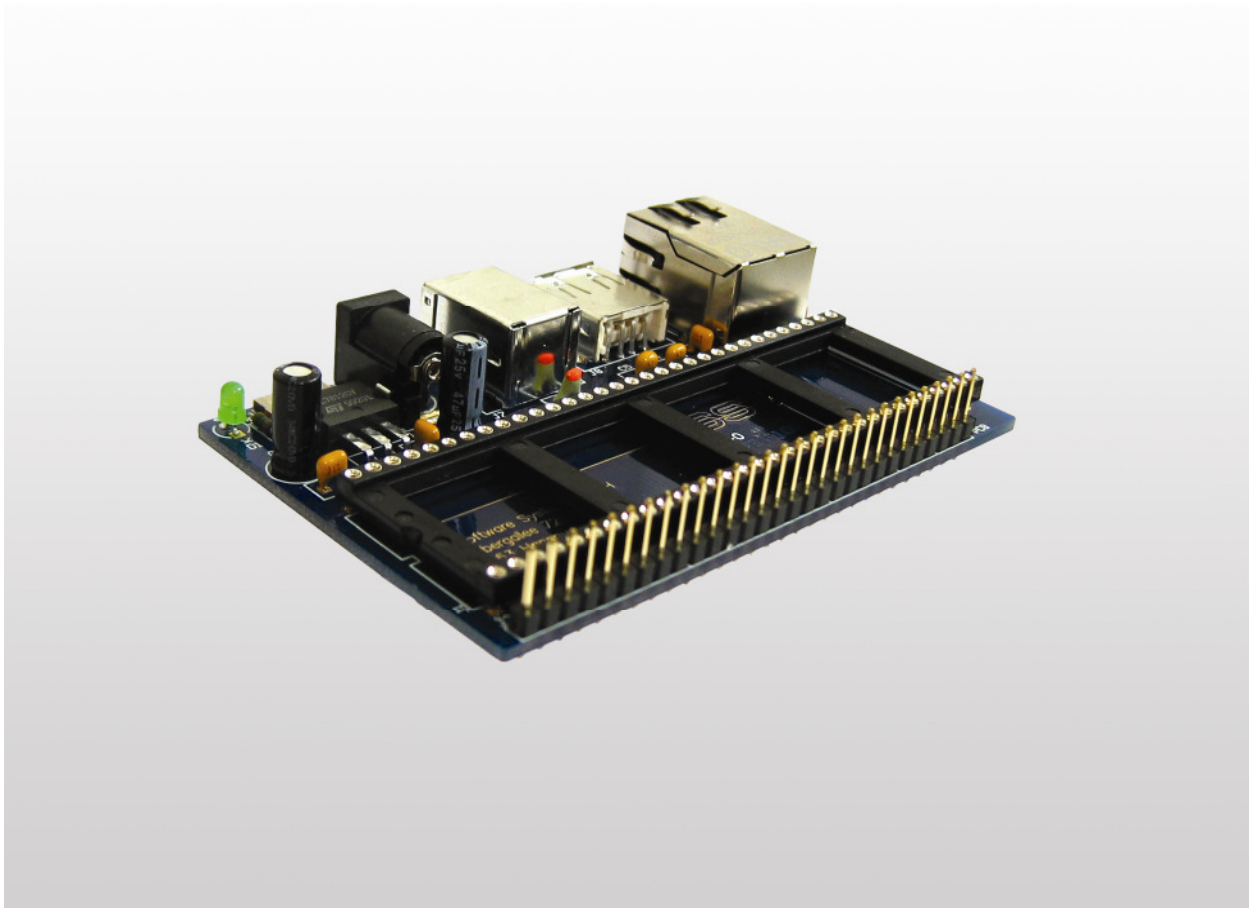


# ***DNP/EVA10***

## ***Board Revision 1.0***

# Hardware Reference



### **SSV Embedded Systems**

Heisterbergallee 72  
D-30453 Hannover  
Phone: +49 (0)511/40 000-0  
Fax: +49 (0)511/40 000-40  
E-mail: sales@ist1.de

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# 1 INTRODUCTION

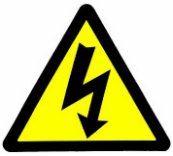
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This document describes the hardware components of the Evaluation Board DNP/EVA10. For further information about the individual components of this product you may follow the links from our website at <http://www.dilnetpc.com>. Our website contains a lot of technical information, which will be updated in regular periods.

## 1.1 Safety Guidelines

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Please read the following safety guidelines carefully! In case of property or personal damage by not paying attention to this document and/or by incorrect handling, we do not assume liability. In such cases any warranty claim expires.



**ATTENTION:** Observe precautions for handling – electrostatic sensitive device!

- Discharge yourself before you work with the device, e.g. by touching a heater of metal, to avoid damages.
- Stay grounded while working with the device to avoid damage through electrostatic discharge.

## 1.2 Conventions

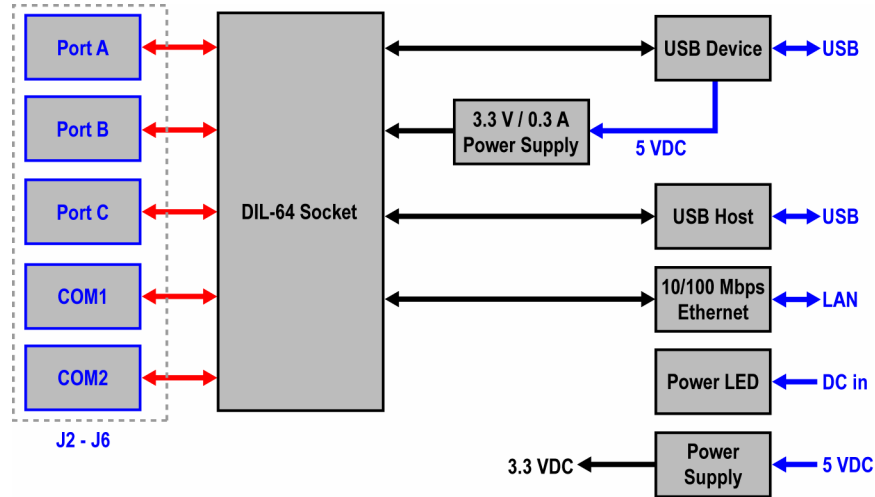
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Convention	Usage
<b>bold</b>	Important terms
<i>italic</i>	Filenames, user inputs
monospace	Pathnames, program code, command lines

**Table 1: Conventions used in this document**

### 1.3 Block Diagram

Figure 1 shows the block diagram with the main components of the DNP/EVA10. The DIL-64 socket (J1) forms the center of this figure. This socket connects a 64-pin DIL/NetPC with the DNP/EVA10 functions.

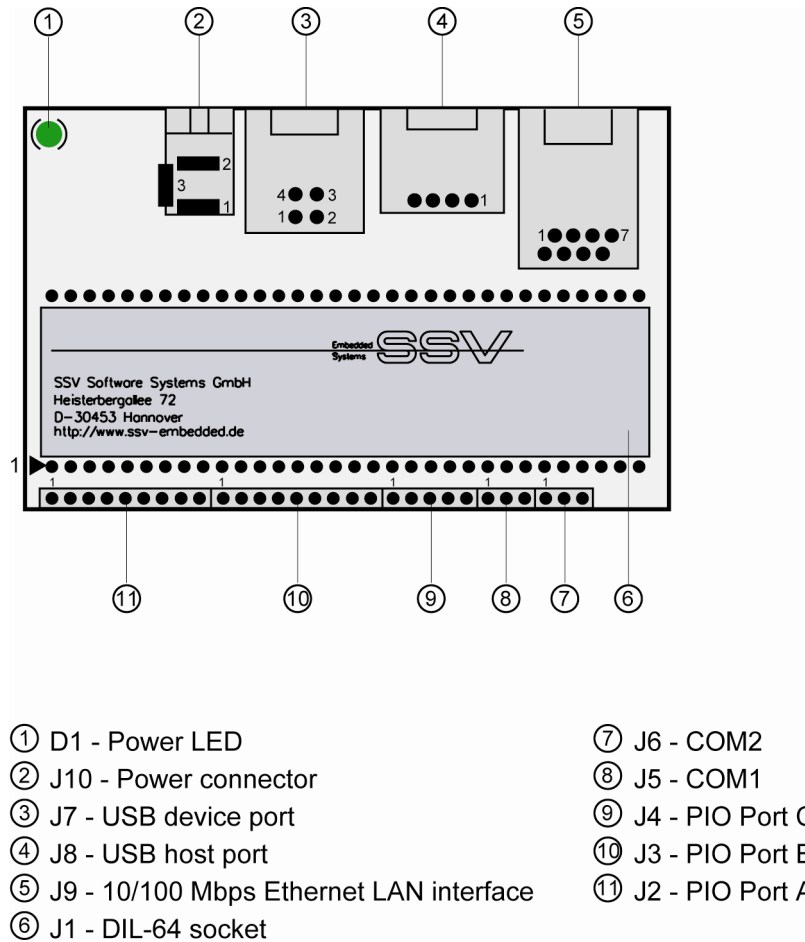


**Figure 1: Block diagram of DNP/EVA10**

### 1.4 Feature Overview

- One DIL-64 socket for DIL/NetPCs
- Two serial interfaces COM1/COM2 (RS232)
- One 10/100 Mbps Ethernet LAN interface
- One USB host port connector with 5 VDC power supply output
- One USB device port connector
- One connector with PIO and COM1/COM2 signals
- One 5 VDC power input connector
- One power LED

## 2 BOARD LAYOUT



**Figure 2: Board layout DNP/EVA10**

### 3 PINOUTS

#### 3.1 DIL-64 Socket – J1 (1. Part)

Pin	Name	Group	Function
1	PA0	PIO	Parallel I/O, Port A, Bit 0
2	PA1	PIO	Parallel I/O, Port A, Bit 1
3	PA2	PIO	Parallel I/O, Port A, Bit 2
4	PA3	PIO	Parallel I/O, Port A, Bit 3
5	PA4	PIO	Parallel I/O, Port A, Bit 4
6	PA5	PIO	Parallel I/O, Port A, Bit 5
7	PA6	PIO	Parallel I/O, Port A, Bit 6
8	PA7	PIO	Parallel I/O, Port A, Bit 7
9	PB0	PIO	Parallel I/O, Port B, Bit 0
10	PB1	PIO	Parallel I/O, Port B, Bit 1
11	PB2	PIO	Parallel I/O, Port B, Bit 2
12	PB3	PIO	Parallel I/O, Port B, Bit 3
13	PB4	PIO	Parallel I/O, Port B, Bit 4
14	PB5	PIO	Parallel I/O, Port B, Bit 5
15	PB6	PIO	Parallel I/O, Port B, Bit 6
16	PB7	PIO	Parallel I/O, Port B, Bit 7
17	PC0	PIO	Parallel I/O, Port C, Bit 0
18	PC1	PIO	Parallel I/O, Port C, Bit 1
19	PC2	PIO	Parallel I/O, Port C, Bit 2
20	PC3	PIO	Parallel I/O, Port C, Bit 3
21	RXD1	SIO	COM1 Serial Port, RXD Pin
22	TXD1	SIO	COM1 Serial Port, TXD Pin
23	---	---	Not Connected
24	---	---	Not Connected
25	---	---	Not Connected
26	---	---	Not Connected
27	---	---	Not Connected
28	---	---	Not Connected
29	---	---	Not Connected
30	TX+	LAN	10BASE-T/100BASE-TX Ethernet Interface, TX+ Pin
31	TX-	LAN	10BASE-T/100BASE-TX Ethernet Interface, TX- Pin
32	GND	---	Ground

Table 2: Pinout DIL-64 socket – pin 1 to 32



### 3.2 DIL-64 Socket – J1 (2. Part)

Pin	Name	Group	Function
33	RX+	LAN	10BASE-T/100BASE-TX Ethernet Interface, RX+ Pin
34	RX-	LAN	10BASE-T/100BASE-TX Ethernet Interface, RX- Pin
35	---	---	Not Connected
36	---	---	Not Connected
37	---	---	Not Connected
38	TXD2	PSP*	COM2 Serial Port, TXD Pin
39	RXD2	PSP*	COM2 Serial Port, RXD Pin
40	HDMA	PSP*	USB Host Port-
41	HDPA	PSP*	USB Host Port+
42	DDM	PSP*	USB Device Port-
43	DDP	PSP*	USB Device Port+
44	---	---	Not Connected
45	---	---	Not Connected
46	---	---	Not Connected
47	---	---	Not Connected
48	---	---	Not Connected
49	---	---	Not Connected
50	---	---	Not Connected
51	---	---	Not Connected
52	---	---	Not Connected
53	---	---	Not Connected
54	---	---	Not Connected
55	---	---	Not Connected
56	---	---	Not Connected
57	---	---	Not Connected
58	---	---	Not Connected
59	---	---	Not Connected
60	---	---	Not Connected
61	---	---	Not Connected
62	---	---	Not Connected
63	---	---	Not Connected
64	Vcc	---	3.3 Volt Power Input

**Table 3: Pinout DIL-64 socket – pin 33 to 64**



\* **Please note:** Some pins are called "Product Specific Pins (PSP)". Other members of the *DIL/NetPC* family will differ with these pins from the *DNP/9200*. All other pins will have the same primary functions. The *DNP/9200* alternate functions (pin 1 to 20) are *AT91RM9200*-specific.

### 3.3 Port A Connector – J2

Pin	Name	DIL-64 Pin	Function
1	PA0	1	Parallel I/O, Port A, Bit 0
2	PA1	2	Parallel I/O, Port A, Bit 1
3	PA2	3	Parallel I/O, Port A, Bit 2
4	PA3	4	Parallel I/O, Port A, Bit 3
5	PA4	5	Parallel I/O, Port A, Bit 4
6	PA5	6	Parallel I/O, Port A, Bit 5
7	PA6	7	Parallel I/O, Port A, Bit 6
8	PA7	8	Parallel I/O, Port A, Bit 7
9	GND	---	Ground

Table 4: Pinout Port A connector



### 3.4 Port B Connector – J3

Pin	Name	DIL-64 Pin	Function
1	PB0	9	Parallel I/O, Port B, Bit 0
2	PB1	10	Parallel I/O, Port B, Bit 1
3	PB2	11	Parallel I/O, Port B, Bit 2
4	PB3	12	Parallel I/O, Port B, Bit 3
5	PB4	13	Parallel I/O, Port B, Bit 4
6	PB5	14	Parallel I/O, Port B, Bit 5
7	PB6	15	Parallel I/O, Port B, Bit 6
8	PB7	16	Parallel I/O, Port B, Bit 7
9	GND	---	Ground

Table 5: Pinout Port B connector



### 3.5 Port C Connector – J4

Pin	Name	DIL-64 Pin	Function
1	PC0	17	Parallel I/O, Port C, Bit 0
2	PC1	18	Parallel I/O, Port C, Bit 1
3	PC2	19	Parallel I/O, Port C, Bit 2
4	PC3	20	Parallel I/O, Port C, Bit 3
5	GND	---	Ground

Table 6: Pinout Port C connector



### 3.6 COM1 Connector – J5

Pin	Name	DIL-64 Pin	Function
1	RXD1	21	RXD
2	TXD1	22	TXD
3	GND	---	Ground

Table 7: Pinout COM1 connector



### 3.7 COM2 Connector – J6

Pin	Name	DIL-64 Pin	Function
1	RXD2	39	RXD
2	TXD2	38	TXD
3	GND	---	Ground

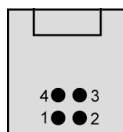
Table 8: Pinout COM2 connector



### 3.8 USB Device Port – J7

Pin	Name	DIL-64 Pin	Function
1	Reserved	---	Reserved
2	DATA-	42	USB Device Port -
3	DATA+	43	USB Device Port +
4	GND	---	Ground

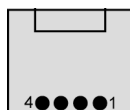
Table 9: Pinout USB device port



### 3.9 USB Host Port – J8

Pin	Name	DIL-64 Pin	Function
1	5 VDC	---	5 VDC Output
2	DATA-	40	USB Host Port -
3	DATA+	41	USB Host Port +
4	GND	---	Ground

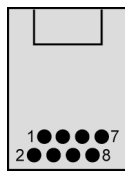
Table 10: Pinout USB host port



### 3.10 10/100 Mbps Ethernet LAN Interface – J9

Pin	Name	DIL-64 Pin	Function
1	TX+	30	10/100 Mbps LAN, TX+ pin
2	TX-	31	10/100 Mbps LAN, TX- pin
3	RX+	33	10/100 Mbps LAN, RX+ pin
4	---	---	Not Connected
5	---	---	Not Connected
6	RX-	34	10/100 Mbps LAN, RX- pin
7	---	---	Not Connected
8	---	---	Not Connected

Table 11: Pinout 10/100 Mbps Ethernet LAN interface



### 3.11 Power Connector – J10

Pin	Name	Function
1	5 VDC	Power Input (max. 5.5 VDC)
2	GND	Ground
3	GND	Ground

Table 12: Pinout power connector



## 4 MECHANICAL DIMENSIONS

All length dimensions have a tolerance of 0.5 mm.

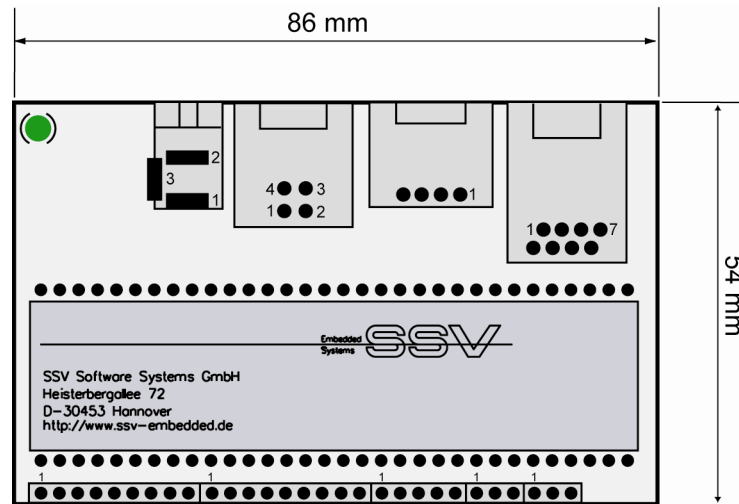


Figure 3: Mechanical dimensions of DNP/EVA10

## CONTACT

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**SSV Embedded Systems**  
Heisterbergallee 72  
D-30453 Hannover  
Phone: +49 (0)511/40 000-0  
Fax: +49 (0)511/40 000-40  
E-mail: sales@ist1.de  
Internet: www.dilnetpc.com

For actual information about the Evaluation Board DNP/EVA10 visit us in the internet:  
<http://www.dilnetpc.com>.

## DOCUMENT HISTORY

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Revision	Date	Remarks	Name
1.0	2006-08-17	first version	WBU
1.1	2006-09-04	small errors corrected	WBU

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