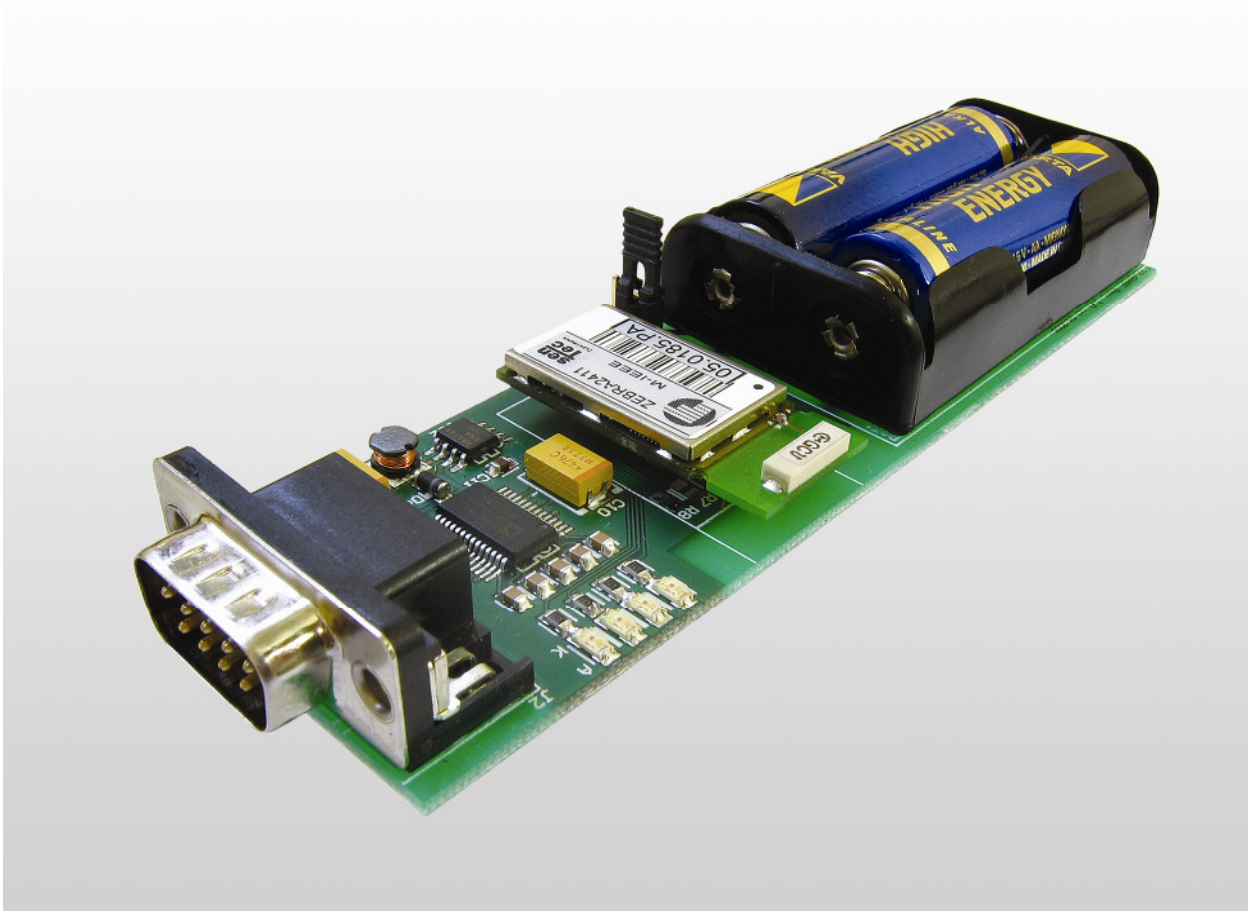
E2Z/BASE

Board Revision 1.0

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 E2Z/BASE. 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

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 Block Diagram

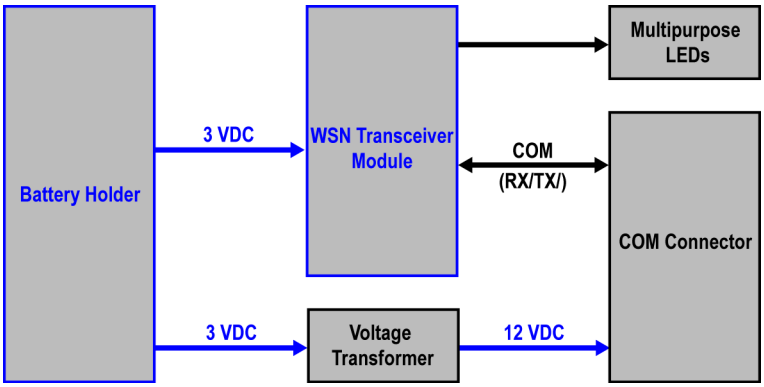


Figure 1: Block diagram of E2Z/BASE

1.3 Feature Overview

- One Sub-D COM connector
- One WSN (Wireless Sensor Network) transceiver module
- ZigBee™ network stack based on the IEEE 802.15.4 data transfer mechanism
- 2.4 GHz frequency band: 2.4000 – 2.4835 GHz
- 16 channels with 5 MHz spacing (not overlapping)
- Data rate up to 250 kbps
- DSSS (Direct Sequence Spread Spectrum)
- Security and data encryption
- One battery holder for two standard AA mignon cells
- Four green multipurpose LEDs driven by the WSN transceiver module

Please note: To implement a true ZigBee™ application, it is necessary to obtain a license for the ZigBee™ software stack and the appropriate compiler.

1.4 Mounting the WSN Transceiver Module

Mount the WSN transceiver module on the E2Z/BASE in the same direction like shown in **figure 2**.

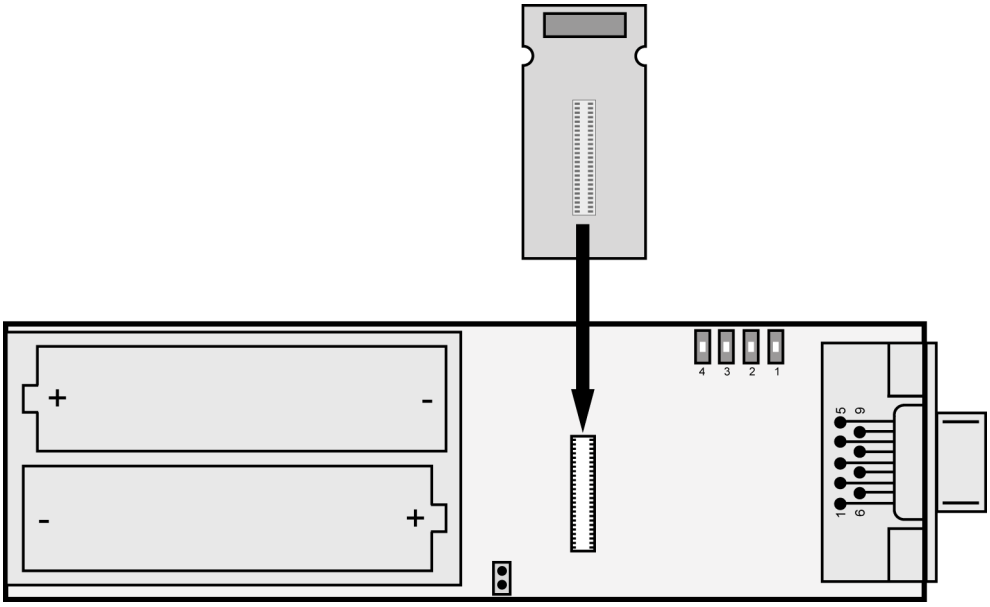
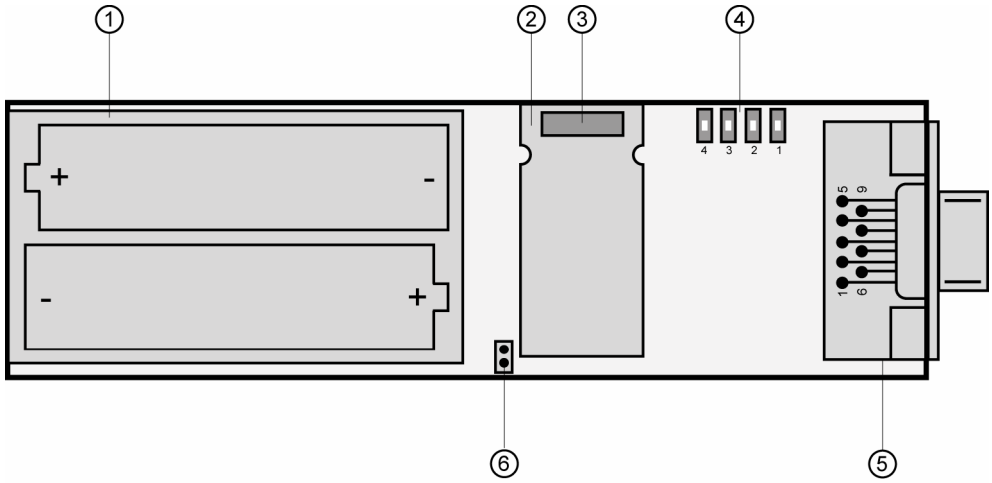


Figure 2: Mounting the WSN transceiver module on the E2Z/BASE

2 BOARD LAYOUT



① BAT1 - Battery holder
② J1 - WSN transceiver module
③ WSN transceiver module antenna
④ D1 to D4 - Multipurpose LEDs
⑤ J2 - COM connector
⑥ J3 - ON/OFF jumper

Figure 3: Board layout E2Z/BASE

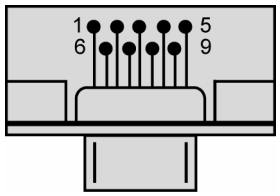
Please note: The battery holder is for two standard AA mignon cells.

3 PINOUTS

3.1 COM Connector – J2

Pin	Name	Function
1	---	Not Connected
2	RXD	COM Serial Port, RXD pin
3	TXD	COM Serial Port, TXD pin
4	---	Not Connected
5	---	Not Connected
6	---	Not Connected
7	VCC	12 VDC power output
8	---	Not Connected
9	---	Not Connected

Table 1: Pinout COM connector

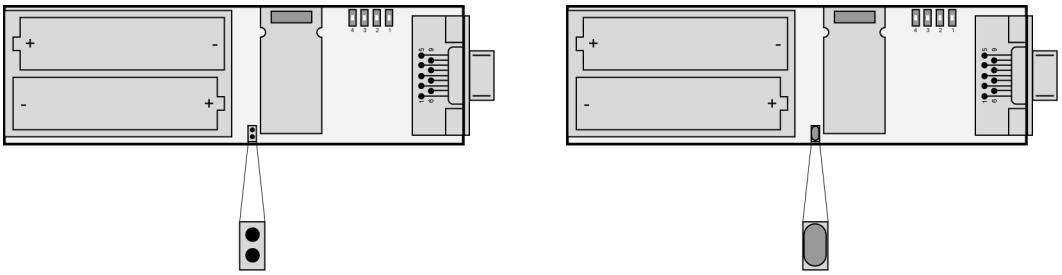


Please note: Pin 7 of the COM connector provides the SMT/160 temperature sensor with 12 VDC.

3.2 ON/OFF Jumper – J3

This jumper works like a usual on/off button.

To turn the E2Z/BASE on, place the jumper cap on the jumper. To turn the E2Z/BASE off, remove the jumper cap.



jumper not set = E2Z/BASE OFF

jumper set = E2Z/BASE ON

Figure 4: ON/OFF jumper

Please note: Do not forget to remove the on/off jumper when you finish working with the E2Z/BASE. Otherwise the batteries may be exhausted soon.

4 MECHANICAL DIMENSIONS

All length dimensions have a tolerance of 0.5 mm.

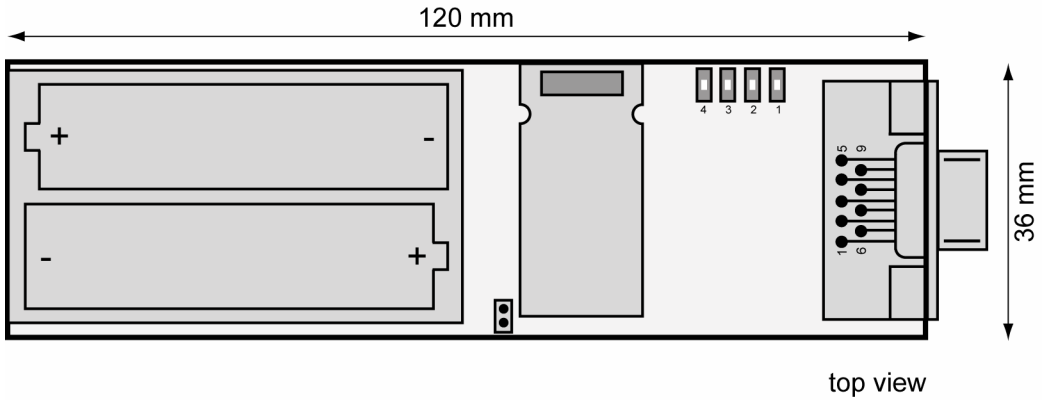


Figure 5: Mechanical dimensions of E2Z/BASE

CONTACT

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For actual information about the E2Z/BASE visit us in the internet:
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DOCUMENT HISTORY

Revision	Date	Remarks	Name
1.0	2006-10-10	first version	WBU