WIZ140SR/WIZ145SR Datasheet

（ Version 1.1 ）

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Document Revision History

Date	Revision	Changes
2010-04-19	V0.9	Document release
2020-11-17	V1.1	Changed the pin naming (UART3<-> UART4)

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1. Introduction

1.1 Key Features

- ■ Direct Connection to Serial Devices
  - ➢ Adds Network Function Simply and Quickly
  - ➢ Provides Firmware Customization
- ■ Supports 4 Ports Serial
- ■ Provides System Stability and Reliability by using W5300 Hardware Chip
- ■ Includes Configuration tool Program
- ■ Supports Password for the Security
- ■ Support Serial Configuration – with Simple and Easy command
- ■ 10/100 Ethernet Interface and max 115,200bps Serial Interface
- ■ Support Static IP, DHCP
- ■ Support DNS Function
- ■ RoHS Compliant

1.2 Product Specifications

Table 1. WIZ140SR/WIZ145SR Specifitations

		WIZ140SR	WIZ145SR
Architecture	MCU	ARM-based 32-bit MCU	
	TCP/IP	W5300	
	PHY	Included in W5300 10/100Mbps Ethernet Auto negotiation (Full-duplex and Half-duplex) Auto MDI/MDIX	
	Serial	RS-232C	
Serial Data Port	Interface	TTL	
	Signals	TXD, RXD, RTS, CTS, GND	
	Parameters	Parity : None, Odd, Even Data bits : 7, 8 bit Flow control : None, RTS / CTS, XON / XOFF	
	Speed	Up to 115,200bps	
Serial Debug Port	Interface	TTL	
	Signals	TXD, RXD	
	Parameters	Parity : None Data bits : 8 bit Flow control : None	
	Speed	115,200bps	
Dimensions (Include connector size)		48.26mm x 35.56mm x 16.2mm	48.26mm x 61.4mm x 24.7mm
Pin header Connector		2.54mm Pitch Pin-header, 14Pin (1x14) 2.54mm Pitch Pin-header, 28Pin (2x14)	
RJ-45 Connector		None	1 RJ-45 Connector
Input voltage		DC 3.3V	
Power consumption		Under 200mA	
Temperature		0°C ~ 70°C (Operation), -40°C ~ 85°C (Storage)	
Humidity		10 ~ 80%	

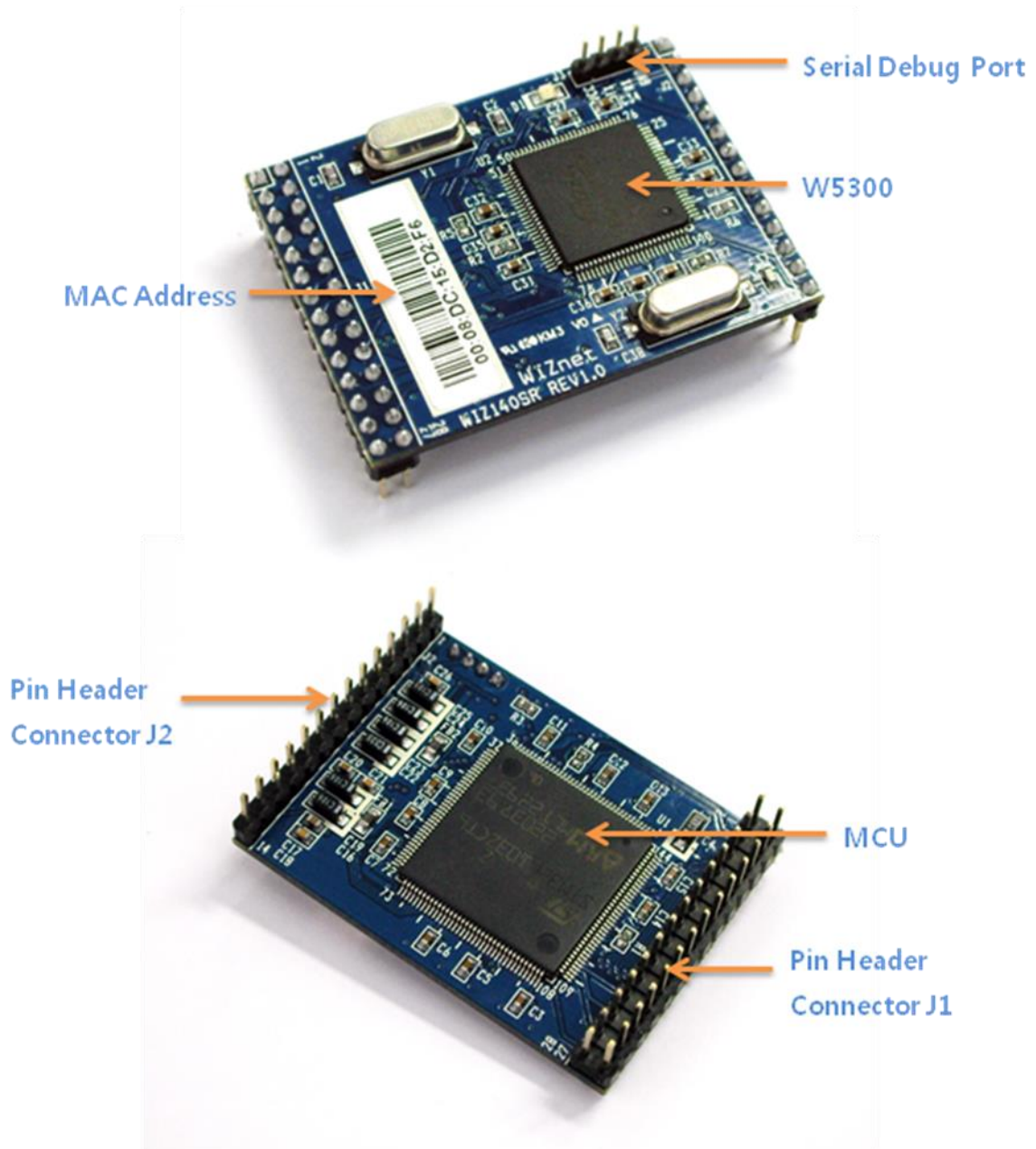## 1.3 WIZ140SR Module Interface

Figure 1. WIZ140SR Module Interface
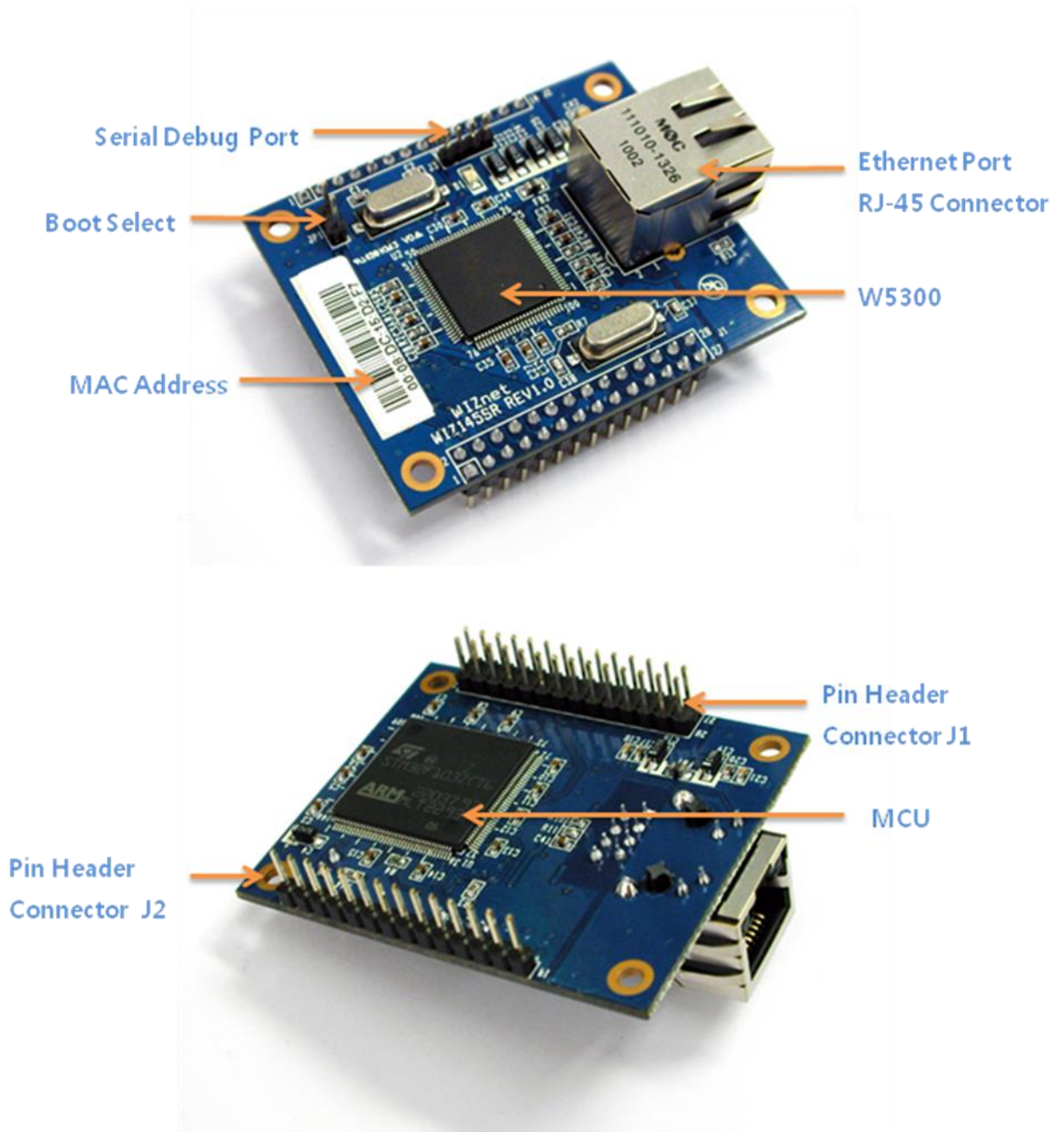
1.4 WIZ145SR Module Interface

Figure 2. WIZ145SR Module Interface

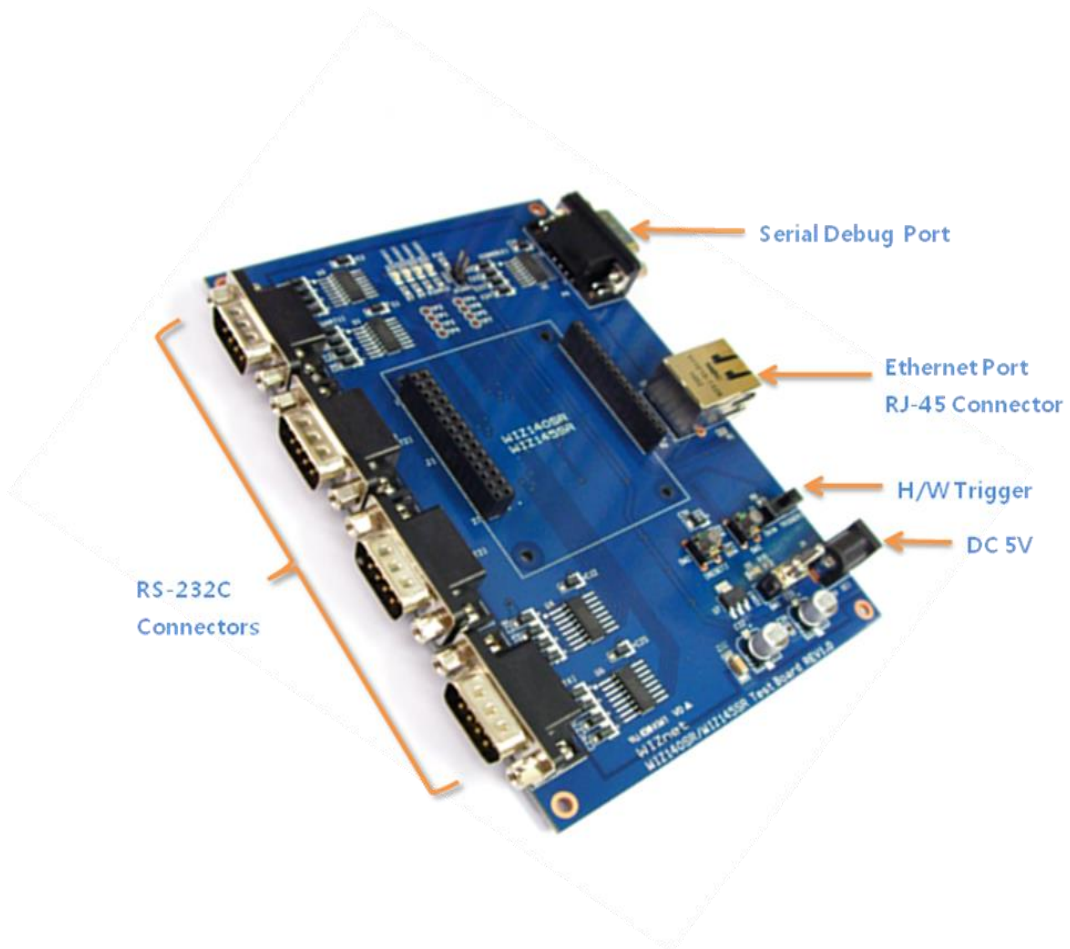# 1.5 WIZ140SR/WIZ145SR Test Board Interface

Figure 3. WIZ140SR/WIZ145SR Test Board Interface

2. Hardware Specification

2.1 Hardware Dimension
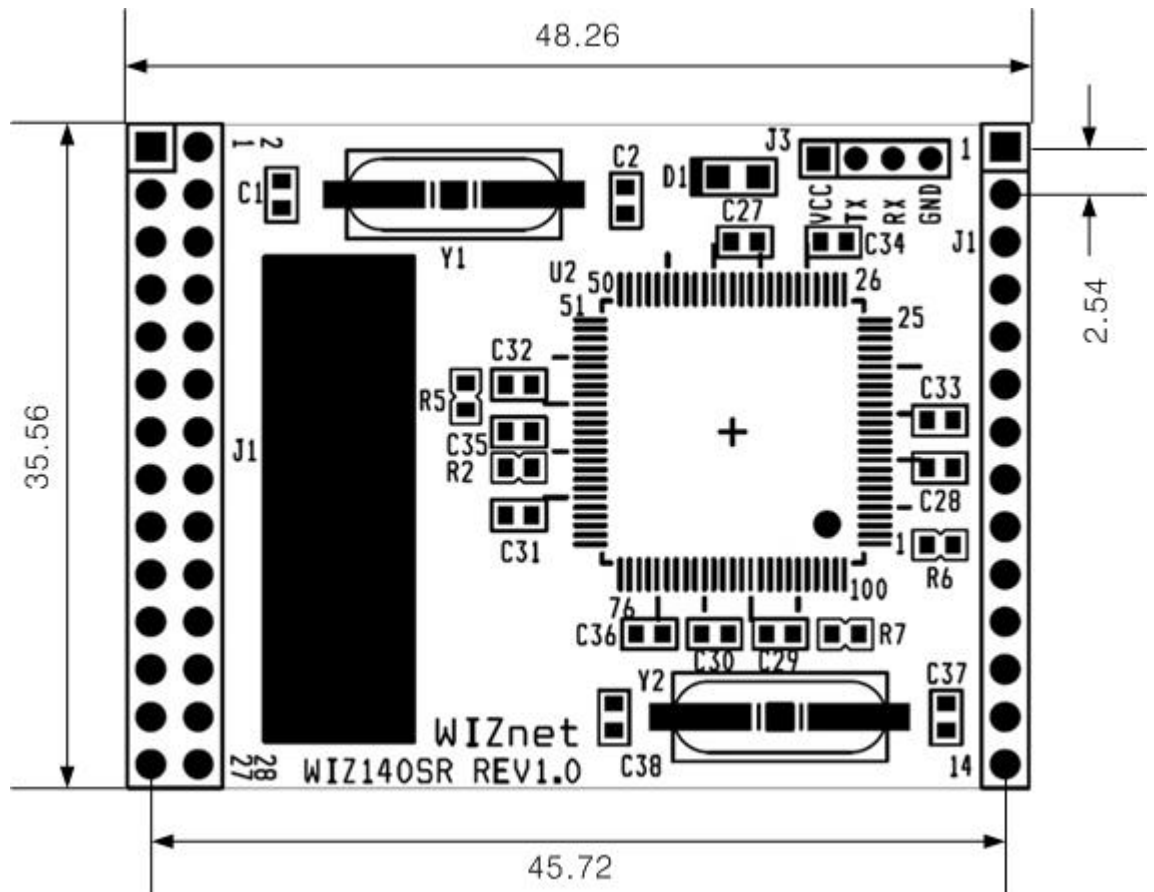
2.1.1 WIZ140SR Module Dimension

Figure 4. WIZ140SR Module Dimensions (mm)

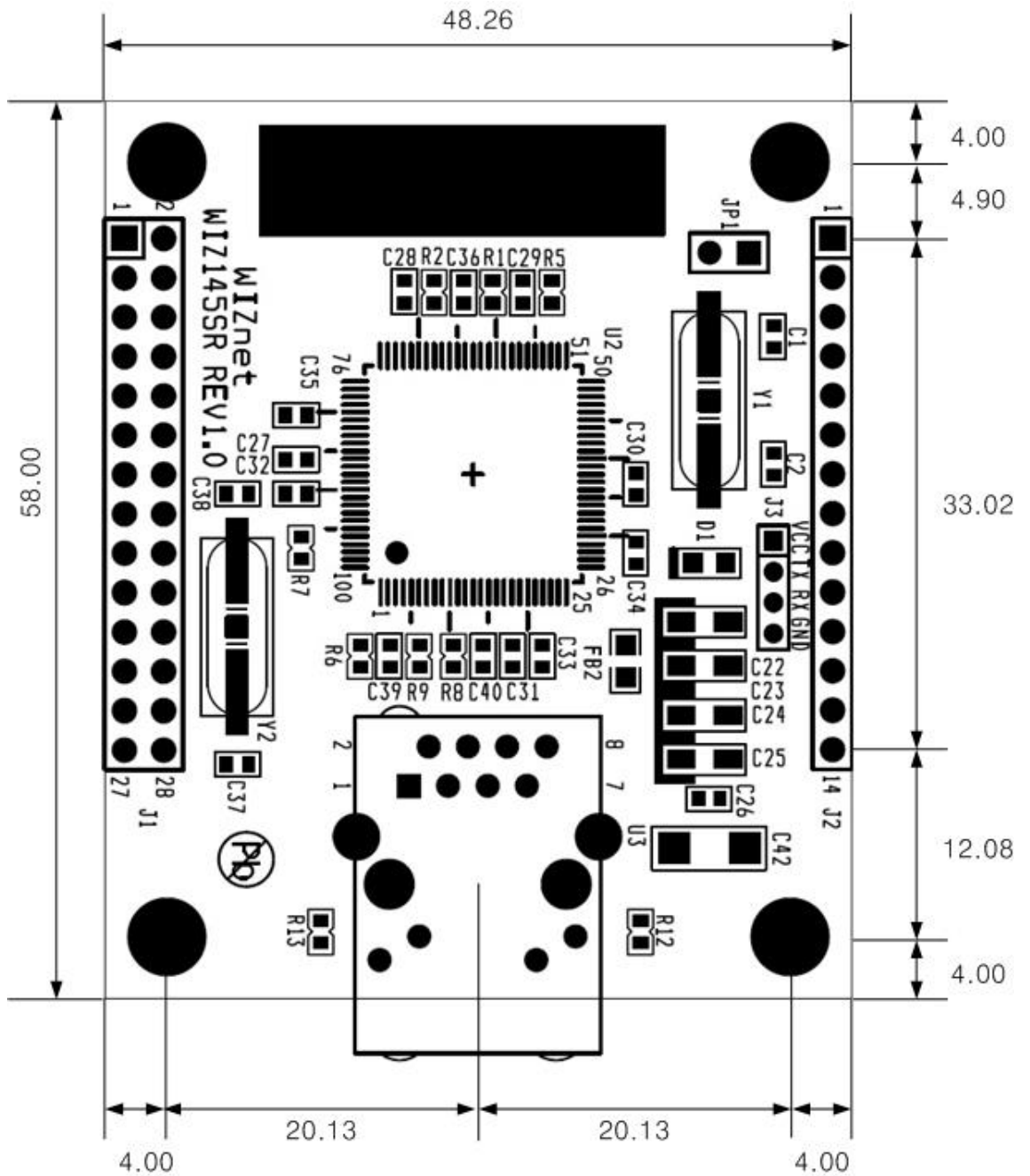## 2.1.2 WIZ145SR Module Dimension

Figure 5. WIZ145SR Module Dimension (mm)

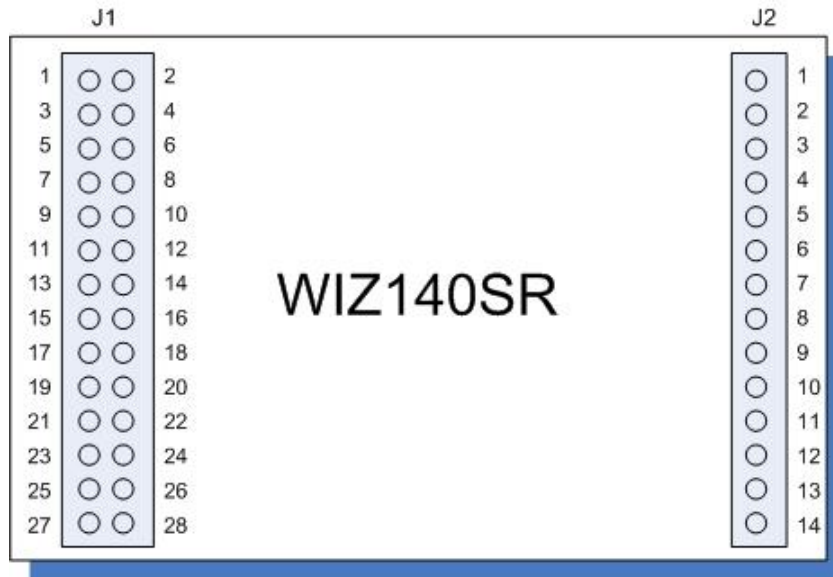## 2.2 Connector Specification

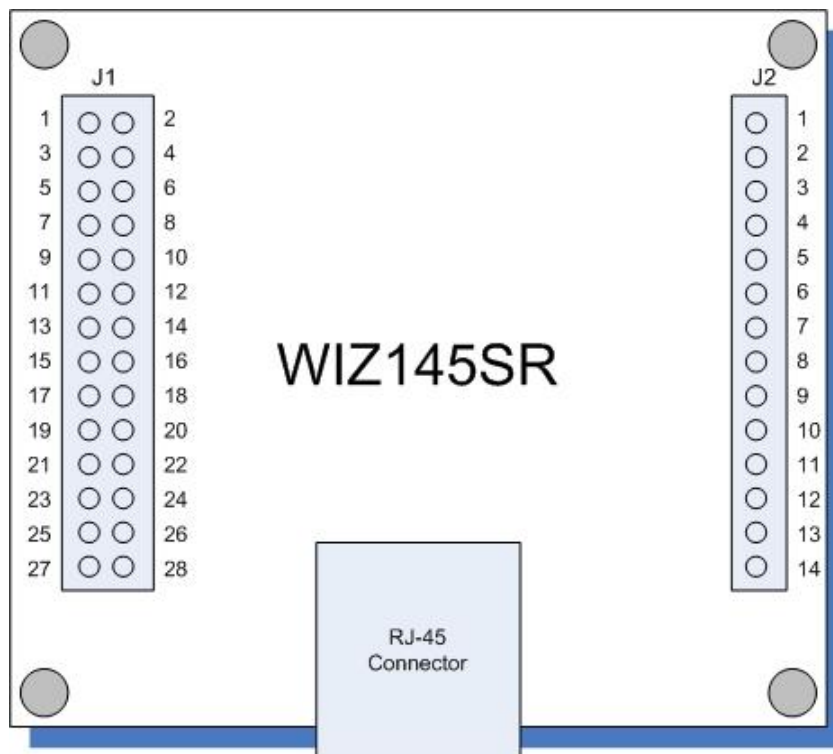### 2.2.1 Pin Header Connector

Figure 6. WIZ140SR Module Pin Assign

Figure 7. WIZ145SR Module Pin Assign

Table 2. J1 Connector Pin Descriptions

Pins	Signal	I/O	Description
1	3.3V VCC	S	3.3V Power
2	3.3V VCC	S	3.3V Power
3	/RESET	I	Board Reset, Active low
4	GND	S	Ground
5	UART1_RX	I	RS-232 Data Input for UART CH #1
6	UART1_CTS	I	RS-232 Clear To Send for UART CH #1
7	UART1_TX	O	RS-232 Data Output for UART CH #1
8	UART1_RTS	O	RS-232 Request To Send for UART CH #1
9	STATUS_1	O	Status signal for UART CH #1 Low: Connected, High: Not Connected
10	GND	S	Ground
11	UART2_RX	I	RS-232 Data Input for UART CH #2
12	UART2_CTS	I	RS-232 Clear To Send for UART CH #2
13	UART2_TX	O	RS-232 Data Output for UART CH #2
14	UART2_RTS	O	RS-232 Request To Send for UART CH #2
15	STATUS_2	O	Status signal for UART CH #2 Low: Connected, High: Not Connected
16	GND	S	Ground
17	UART4_RX	I	RS-232 Data Input for UART CH #4
18	UART4_CTS	I	RS-232 Clear To Send for UART CH #4
19	UART4_TX	O	RS-232 Data Output for UART CH #4
20	UART4_RTS	O	RS-232 Request To Send for UART CH #4
21	STATUS_4	O	Status signal for UART CH #4 Low: Connected, High: Not Connected
22	GND	S	Ground
23	UART3_RX	I	RS-232 Data Input for UART CH #3
24	UART3_CTS	I	RS-232 Clear To Send for UART CH #3
25	UART3_TX	O	RS-232 Data Output for UART CH #3
26	UART3_RTS	O	RS-232 Request To Send for UART CH #3
27	STATUS_3	O	Status signal for UART CH #3 Low: Connected, High: Not Connected
28	GND	S	Ground

Table 3. J2 Connector Pin Descriptions

Pins	Signal	I/O	Description
1	SW_INPUT	I	SW3 Switch Input
2	HW_TRIGGER	I	Serial Command Hardware Trigger
3	UART0_TX	O	RS-232 Data Output for Debugging Port
4	UART0_RX	I	RS-232 Data Input for Debugging Port
5	BOOT	I	Boot Selection Signal Low: Application Boot, High: MCU boot loader
6	TPTX-	O	Ethernet Differential Output - (WIZ140SR Only)
7	TPTX+	O	Ethernet Differential Output + (WIZ140SR Only)
8	PWFBOUT	S	Power Feedback Out
9	GND	S	Ground
10	TPRX-	I	Ethernet Differential Input – (WIZ140SR Only)
11	TPRX+	I	Ethernet Differential Input + (WIZ140SR Only)
12	GND	S	Ground
13	/LINK_LED	O	Link LED (WIZ140SR Only)
14	/ACT_LED	O	Active LED (WIZ140SR Only)

1. I=input, O = output, S = supply.
2. J2 Pin6,7,10,11,13,14 use only WIZ140SR. WIZ145SR has RJ-45 Connector on the module.

2.2.2 RJ-45 Connector
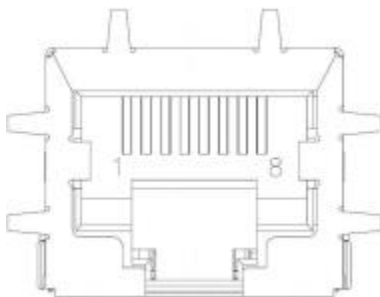
Pins	Signals
1	TX+
2	TX-
3	RX+
6	RX-

Figure 8. RJ-45 Connector