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WIZ750SR-100 Datasheet

Supported Languages

- English only



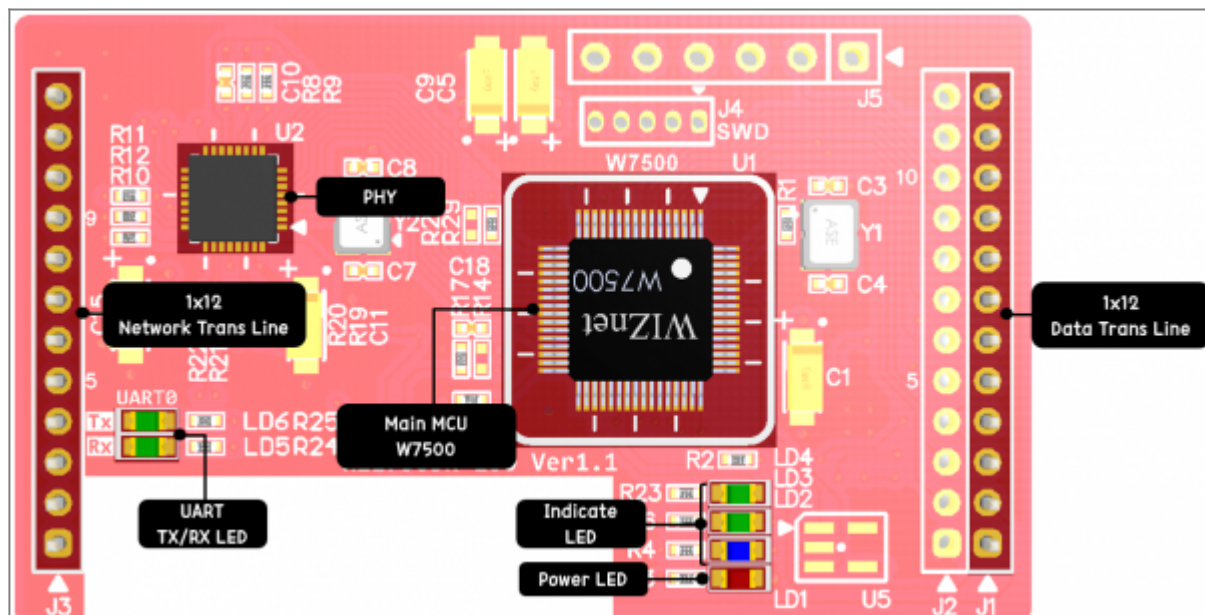
Hardware Specification

Product Spec Table

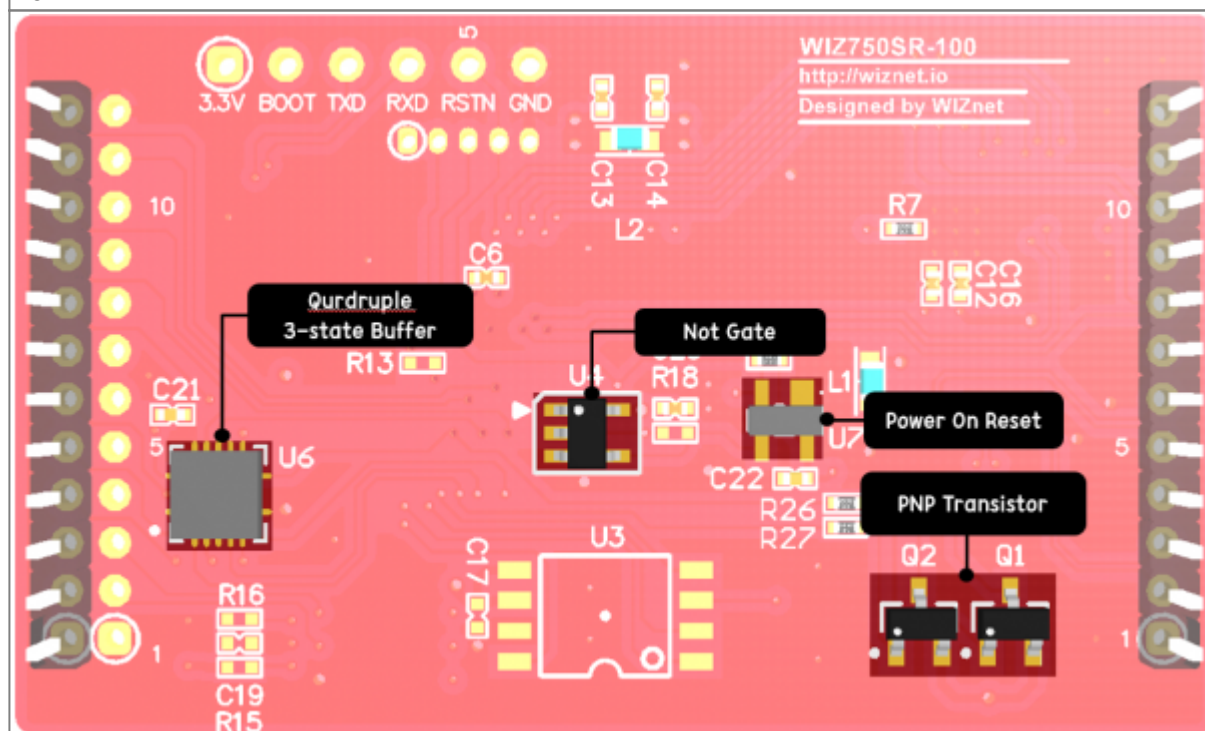
Category		Description
MCU	ARM Cortex-M0 Core	W7500 48Mhz maximum frequency Internal 8Mhz RC Oscillator Flash: 128KB Large flexible-size SRAM buffer for various User Application - Min 16KB available if full 32KB socket buffer used - Max 48KB available if no socket buffer used ROM for boot code: 6 KB
	Hardwired TCP/IP Core	8 independent Sockets SRAM for socket: 32KB MII (Medium-Independent Interface) TCP/IP Protocols: TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE
PHY	Transceiver	IP101GRI Single 10/100M Ethernet Transceiver
Serial	Interface	UART (LVTTTL 3.3V)
	Signal	TXD, RXD, RTS, CTS, DTR, DSR GND
	Parameters	Parity: None, Odd, Even Data bits: 7, 8 bit Flow control: None, RTS / CTS, XON / XOFF
	Speed	Up to 230Kbps
Dimension		50mm x 30mm x 12mm (Include part size)

Category	Description
Connector type	Mount Connector 2.00mm Pitch 1×12 Pin-header 2EA
	Not Mount Connector 2.00mm Pitch 1×12 Pin-header 1ea 2.54mm Pitch 1×6 Pin-header 1.27mm Pitch 1×5 Pin-header
Input Voltage	DC 3.3V, 100mA under
Temperature	-40°C ~ 85°C (Operation), -40°C ~ 85°C (Storage range)

WIZ750SR-100 Callout

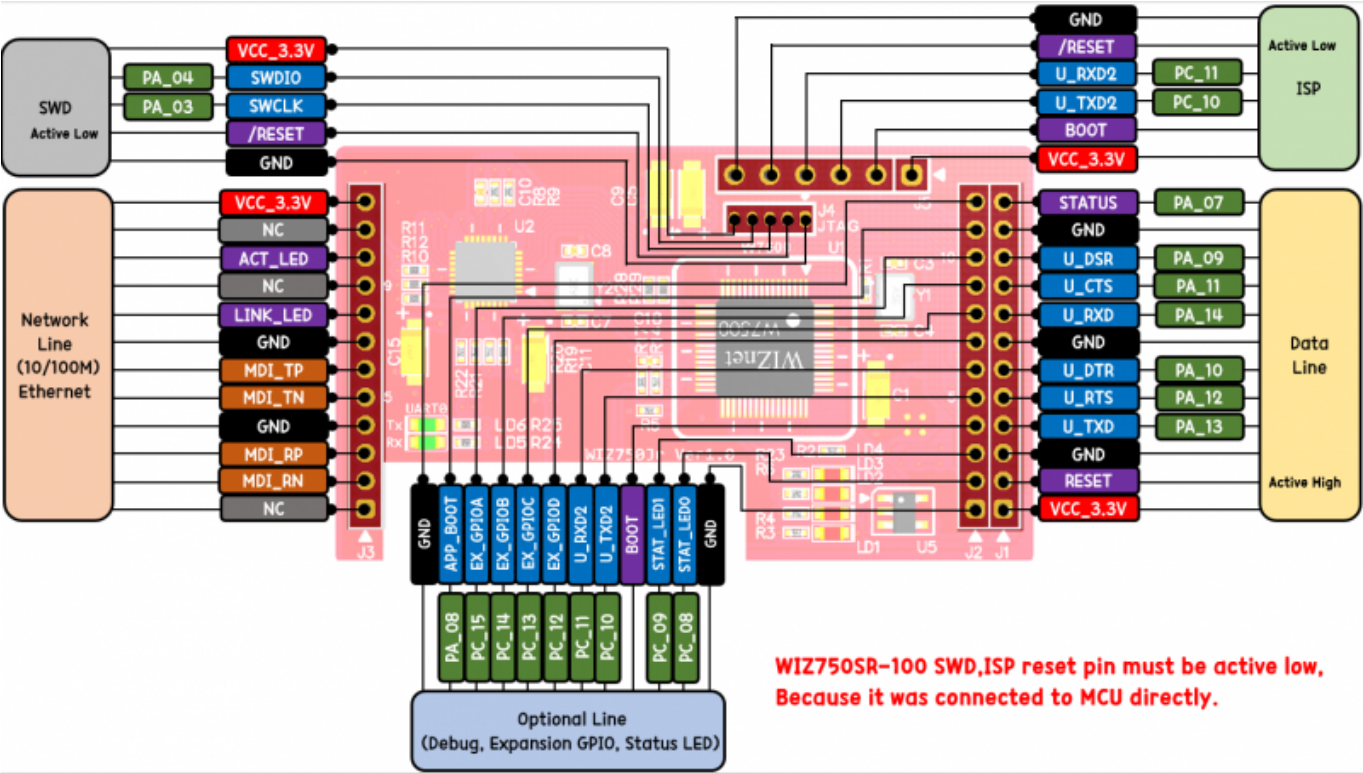


TOP

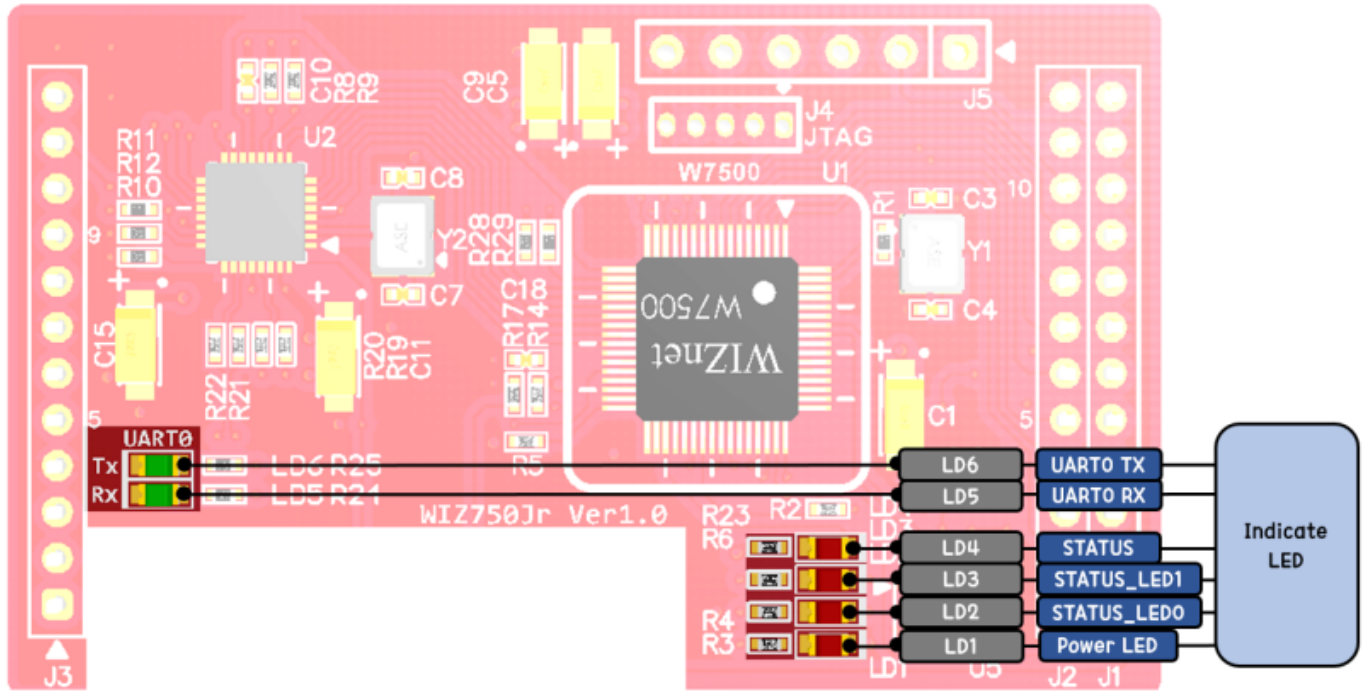


BOTTOM

WIZ750SR-100 Pinout



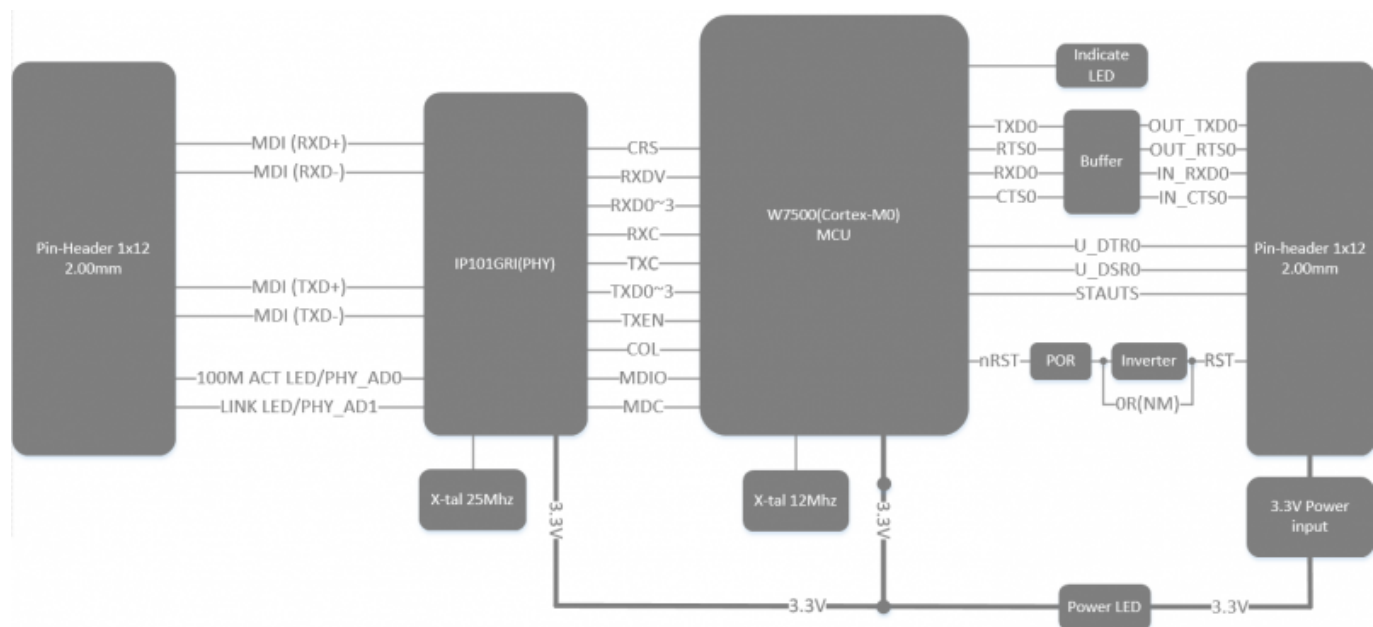
WIZ750SR-100 indicate



Pin Number	Pin Name	Signal	Description
1	LD1	Power LED	-
2	LD2	Status_LED0	PHY LINK check or initialize done
3	LD3	Status_LED1	TCP Connectoin

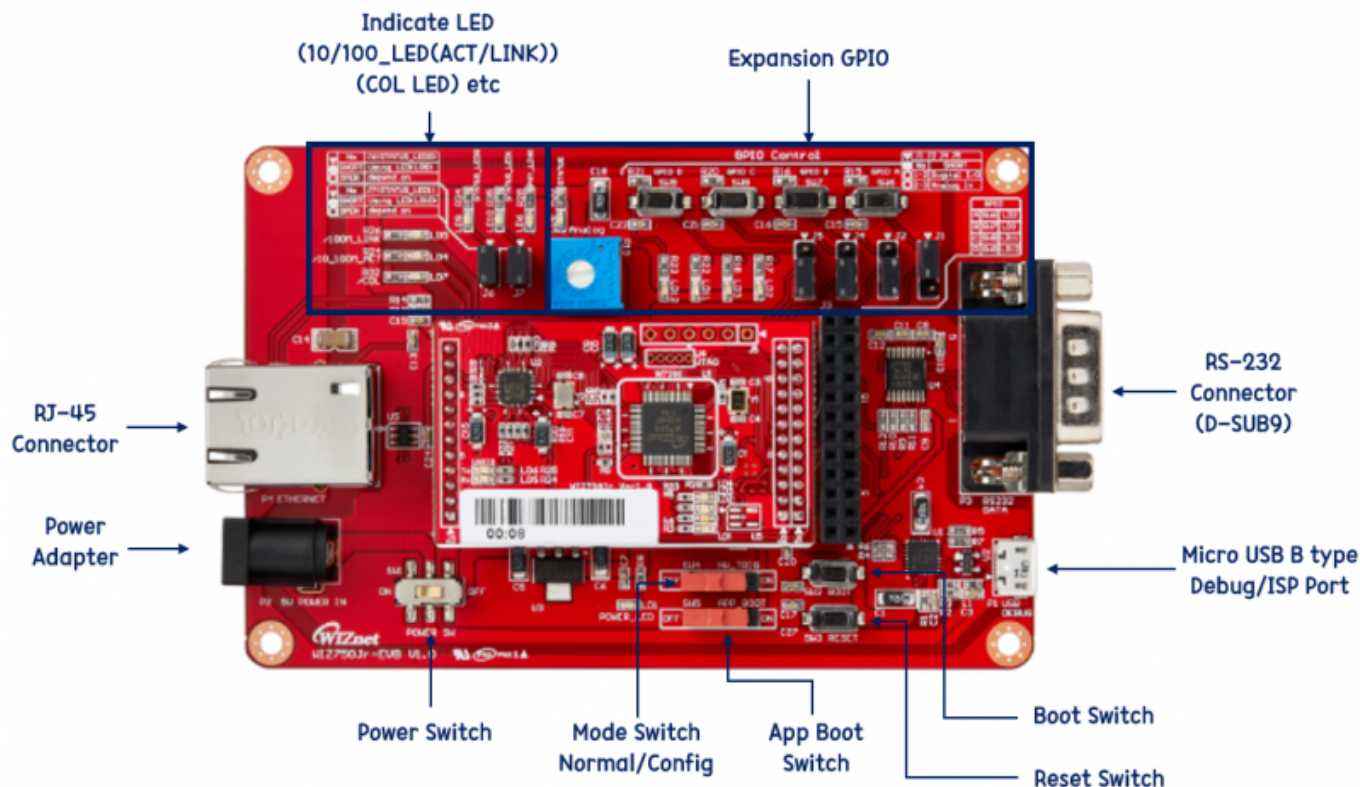
Pin Number	Pin Name	Signal	Description
4	LD4	STATUS	Trigger mode indicate TCP connection indicate
5	LD5	UART0 RX	UART receiver indicate
6	LD6	UART0 TX	UART Transceiver indicate

WIZ750SR-100 Block Diagram



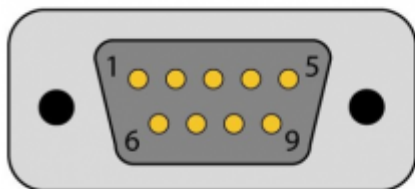
WIZ750SR-100-EVB

- WIZ750SR-100 Developer Board.
- USB to UART chip, CP2104.
- RESET Tact SW.
- BOOT0 Slide SW.
- H/W Trig Slide SW.
- Expansion GPIO TEST (Digital / Analog)
- Micro USB.
- WIZ750SR-100-EVB (RS-232)
 - RS-232C Transceiver, D-SUB9-MALE.



Serial Interface

DB9M Connector

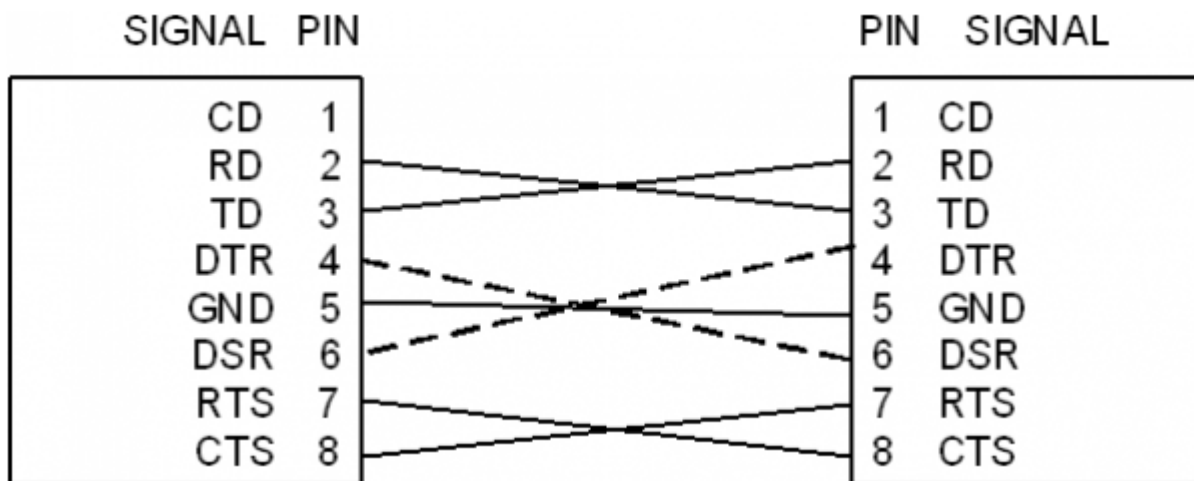


RS-232 Pinout

Pin#	Signal
1	NC
2	RX
3	TX
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	NC

Pin Number	Signal	Description
1	DCD	NC
2	RXD	Receive Data
3	TXD	Transmit Data
4	DTR	Data Terminal Ready
5	GND	System Ground(Signal Ground)
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	RI	NC

- RXD, TXD, GND: These are all you need if the device does not use hardware handshaking.
- RXD, TXD, GND, RTS, CTS: These are the signals used when serial device uses hardware handshaking.
- DTR, DSR: Not used



Schematic & Artwork

WIZ750SR-100

H/W version	Type	Filetype	Download Link	Remarks
1.0	TTL	Altium	 Download	-
		PDF	 Download	-
1.1	TTL	Altium	 Download	-
		PDF	 Download	-

WIZ750SR-EVB

H/W version	Type	Filetype	Download Link	Remarks
1.0	RS232	Altium	 Download	-
		PDF	 Download	-

Part list

WIZ750SR-100

H/W version	Type	Filetype	Download Link	Remarks
1.0	TTL	Excel	 Download	
		PDF	 Download	

H/W version	Type	Filetype	Download Link	Remarks
1.1	TTL	Excel	 Download	
		PDF	 Download	

WIZ750SR-100-EVB

H/W version	Type	Filetype	Download Link	Remarks
1.0	TTL	Excel	 Download	
		PDF	 Download	

Electrical Characteristics

Operating Conditions

Symbol	Parameter	Pins	Min	Typ	Max	Unit
Vcc	Operating Voltage	3.3V	3.135	3.3	3.465	V
Vss	Ground	ALL		0	50	mV
fCLK	Internal CPU clock frequency	ALL	0	-	48	MHz
Tstg	Storage Temperature (max)	ALL	-40		85	°C
TA	Ambient operating temperature	ALL	-40	85		°C
VIO	I/O Signal voltage (Tolerance)	ALL	Vss-0.3	3.3	5	V
VIH	Input high voltage	ALL	2.5			V
VIL	Input low voltage	ALL			0.6	V
VOH	Output high voltage (High driving strength Current load = 6mA) (Low driving strength Current load = 3mA)	ALL	2.83			V
VOL	Output high voltage (High driving strength Current load = 6mA) (Low driving strength Current load = 3mA)	ALL			0.32	V

Flash Memory

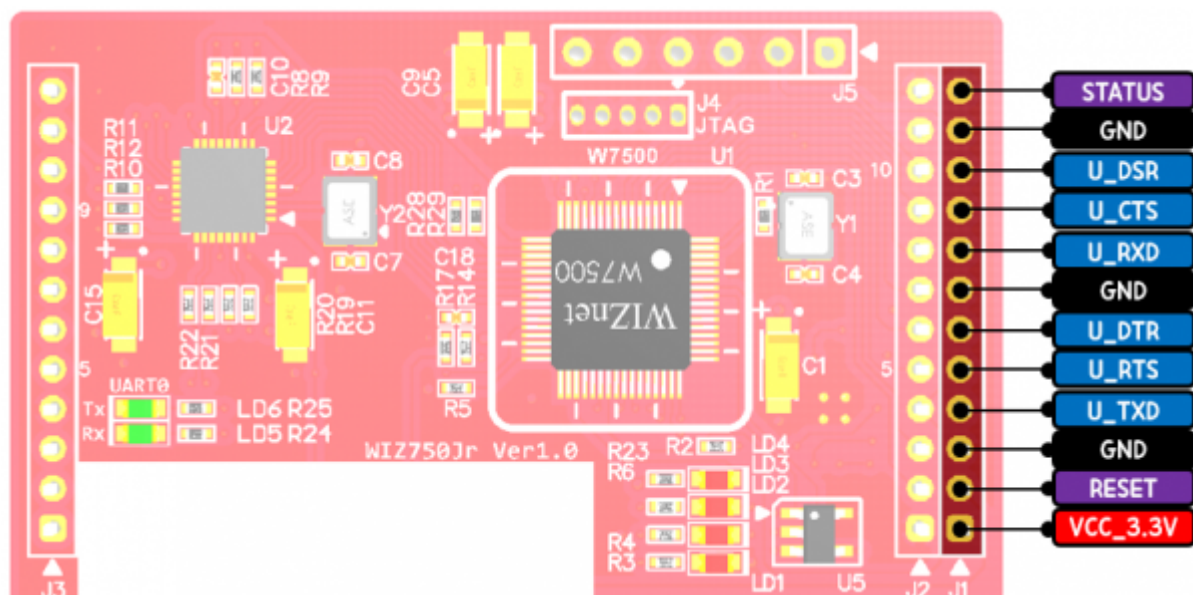
Symbol	Parameter	Min	Unit
NEND	Sector Endurance	10,000	Cycles
TDR	Data Retention	10	Years

EEPROM

Symbol	Parameter	Min	Unit
NEND	Sector Endurance	1M	Cycles
TDR	Data Retention	200	Years

Connector Specification

1x12 Data Pin Connector (J1)

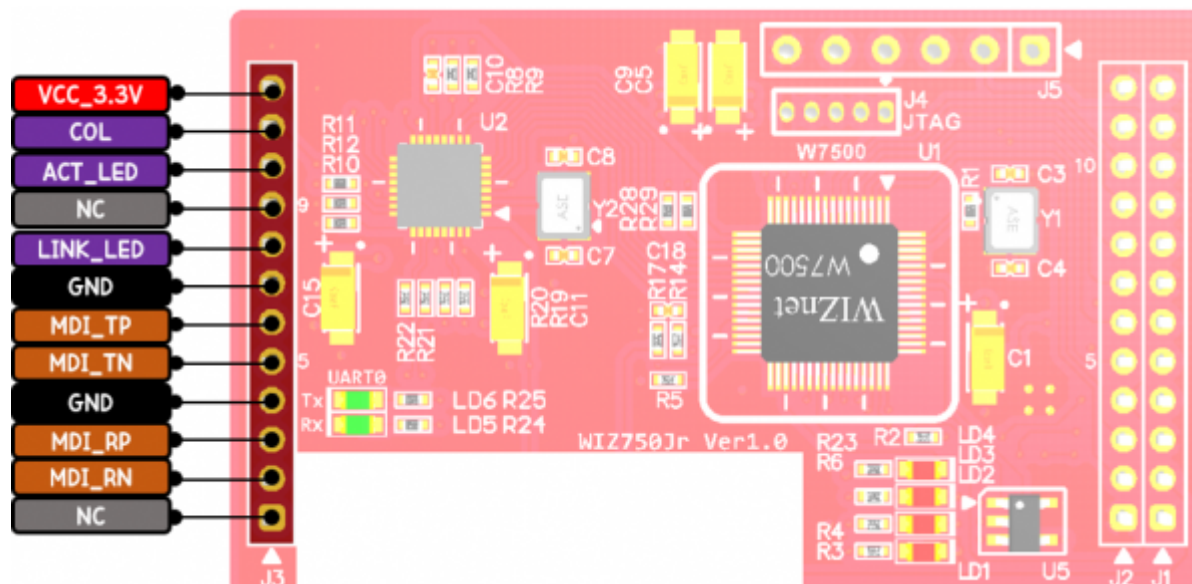


Pin Number	Signal	Description
1	VCC	System Power input (3.3V)
2	RESET	System Reset signal (Active HIGH)
3	GND	System Ground
4	U_TXD0	Transmit Data (TTL : 3.3V)
5	U_RTS0	Request To Send (TTL : 3.3V)
6	U_DTR0 PHY LINK	Data Terminal Ready (TTL : 3.3V) PHY Link status check signal
7	GND	System Ground
8	U_RXD0	Receive Data (TTL : 3.3V)
9	U_CTS0	Clear To Send (TTL : 3.3V)
10	U_DSR0 TCP CON HW_TRIG	Data Set Ready (TTL : 3.3V) TCP Connection check signal
11	GND	System Ground
12	STATUS	TCP Connection & Trigger mode High: Not Connected Low: Connected
	HW_TRIG	Hardware Trigger (Only Check once at booting) High & Floating: Normal mode Low: App boot mode

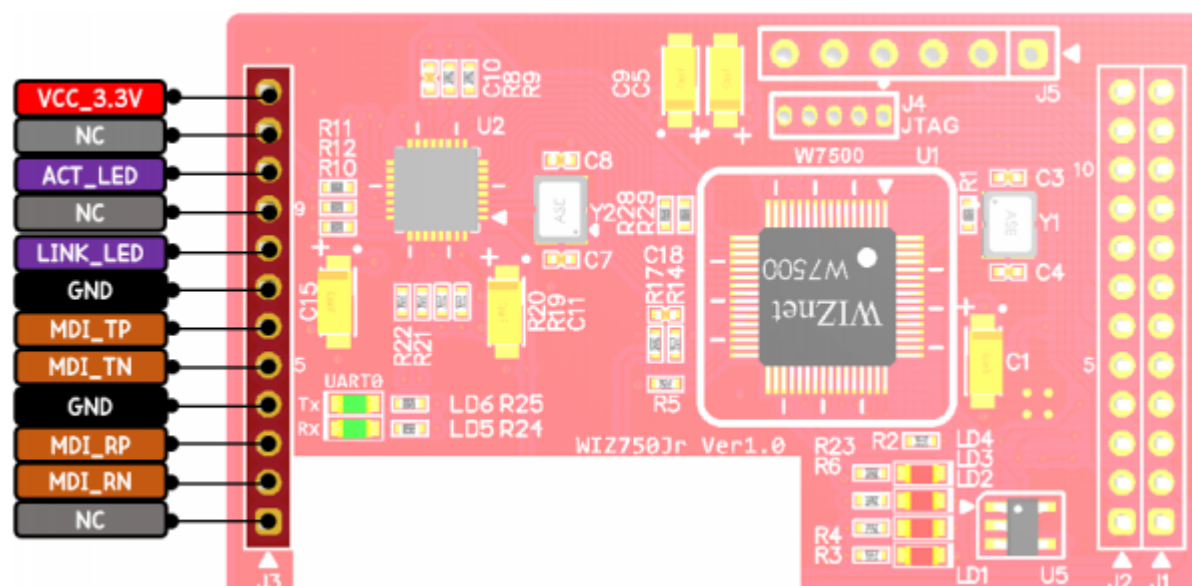
* **STATUS** pin was changed **HW_TRIG** pin.

1x12 Network Line (J3)

WIZ750SR Rev1.0



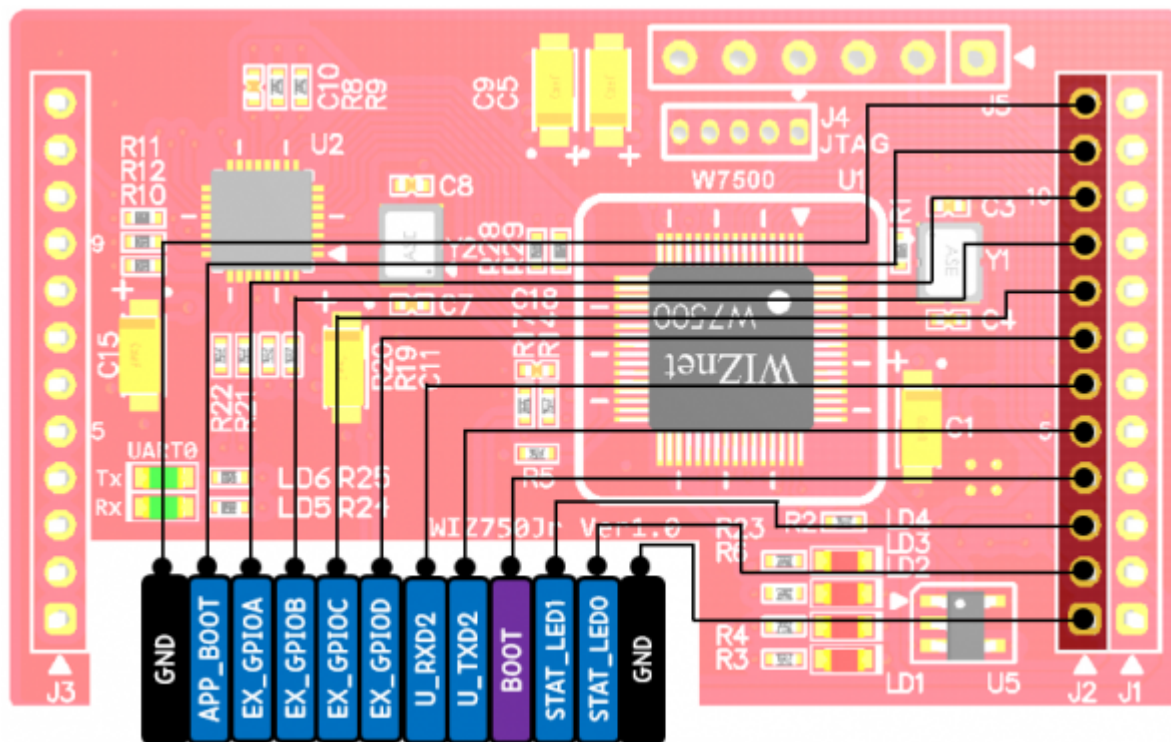
WIZ750SR Rev1.1



Pin Number	Signal	Description
1	NC	Not Connect
2	MDI_RN	10/100M MDIO Receiver Differential Signal (N signal)
3	MDI_RP	10/100M MDIO Receiver Differential Signal (P signal)
4	GND	System Ground
5	MDI_TN	10/100M MDIO Transceiver Differential Signal (N signal)
6	MDI_TP	10/100M MDIO Transceiver Differential Signal (P signal)
7	GND	System Ground
8	Link LED	High: Link down Low: Link up (When the PHY is physically connected, the LINK LED lights up.)
9	NC	Not Connect
10	ACT LED	Blink: 100M ACT (ACT LED blinks when data is transmitted/received between PHYs.)

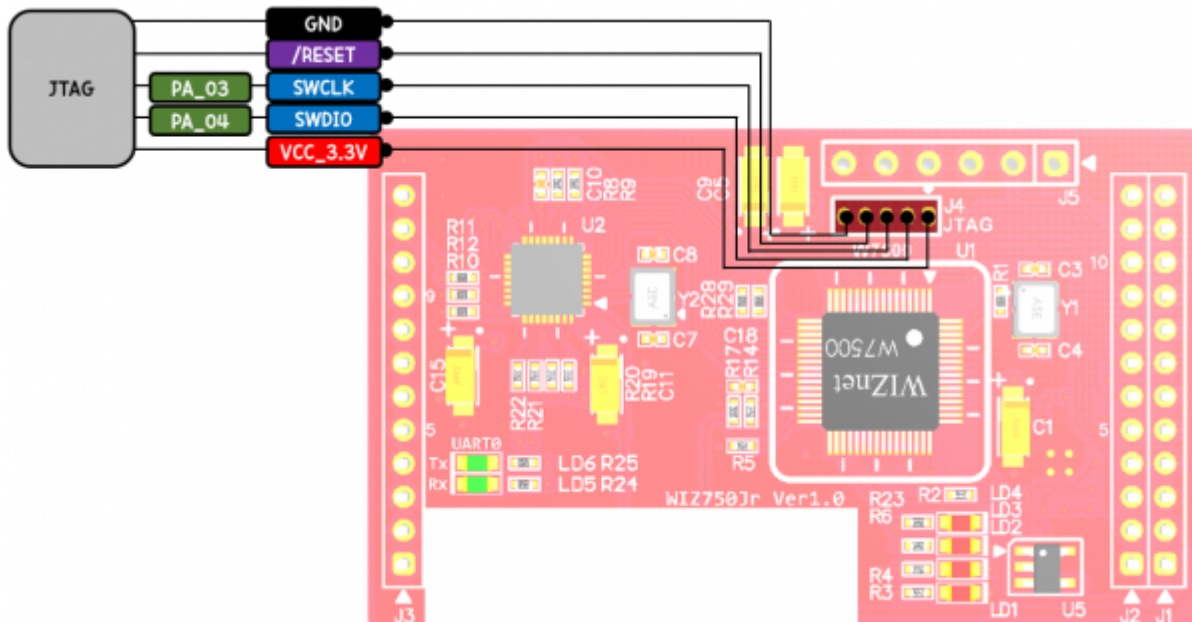
Pin Number	Signal	Description
11	NC	Not Connect (This pin connected to COL pin in Rev1.0. this pin outputs a high-status signal it means a collision is detected. Processed to NC in Rev1.1.)
12	VCC	System Power input (3.3V)

1x12 Expansion GPIO & APP BOOT & Debug(ISP) Port (J2)



Pin Number	Signal	Description
1	GND	System Ground
2	Status LED0	User's depend on pin(LED)
3	Status LED1	User's depend on pin(LED)
4	BOOT	BOOT SW
5	U_TXD2	Simple UART2(Debug port) ISP mode firmware downloader port
6	U_RXD2	Simple UART2(Debug port) ISP mode firmware downloader port
7	Expansion GPIOD	Expansion User's depend on GPIO port
8	Expansion GPIOC	
9	Expansion GPIOB	
10	Expansion GPIOA	
11	APP BOOT	Application Jump at BOOT mode
12	GND	System Ground

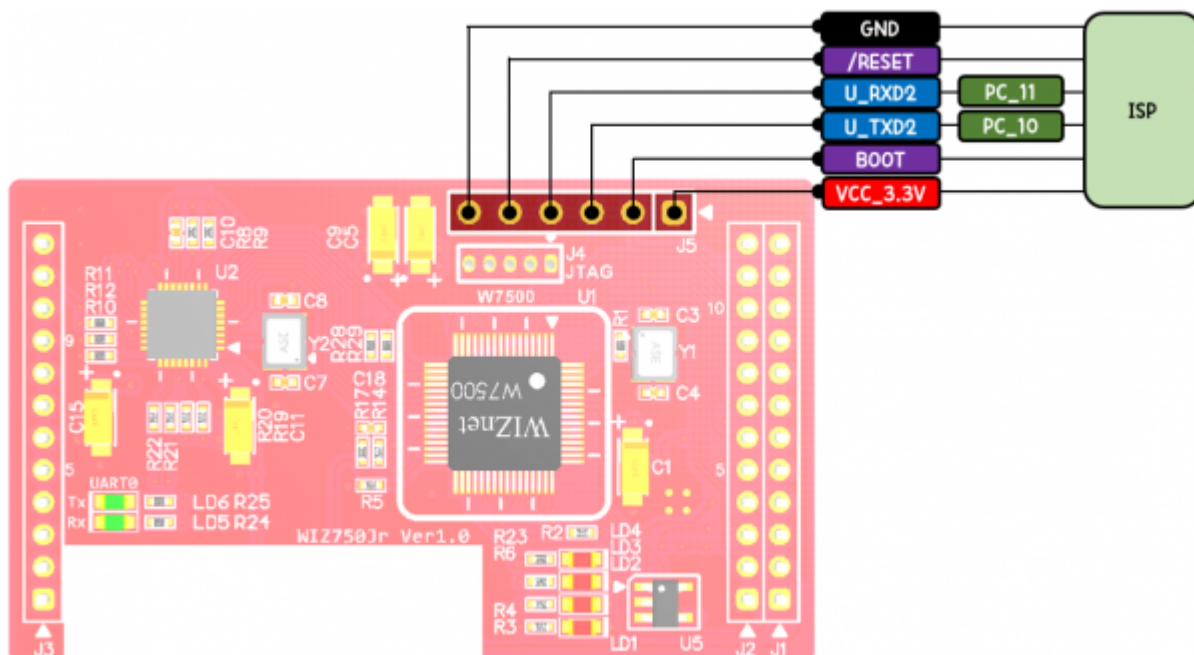
1x5 SWD



Pin Number	Signal	Description
1	VCC	System Power input (3.3V)
2	SWDIO	SWD(JTAG) Data I/O pin
3	SWCLK	SWD(JTAG) Clock pin
4	nRESET	System Reset signal (Active Low) ¹⁾
5	GND	System Ground

Caution) WIZ750SR-100 SWD reset pin must be active low, because it was connected to MCU directly.

1x6 ISP

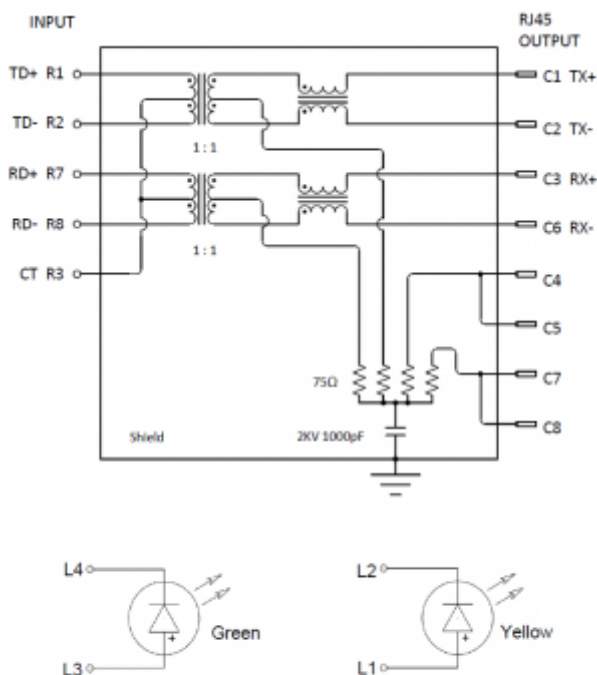


Pin Number	Signal	Description
1	VCC	System Power input (3.3V)
2	BOOT	BOOT SW

Pin Number	Signal	Description
3	U_TXD2	Simple UART2(Debug port) ISP mode firmware downloader port
4	U_RXD2	Simple UART2(Debug port) ISP mode firmware downloader port
5	nRESET	System Reset signal (Active Low) ²⁾
6	GND	System Ground

Caution) WIZ750SR-100 ISP reset pin must be active low, because it was connected to MCU directly.

RJ-45 Connector (BS-RB10005)

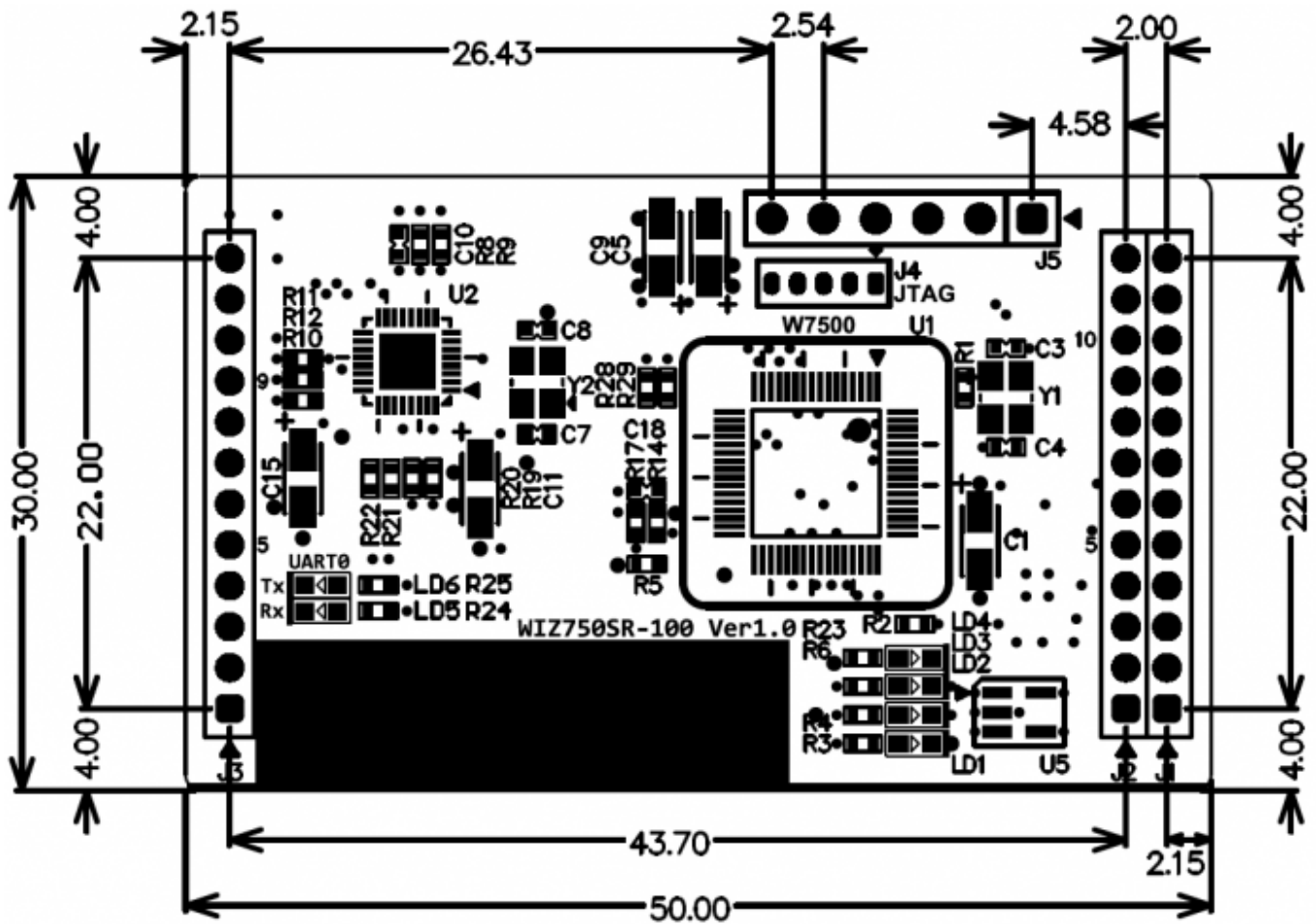


Emitting Color	Ap (nm)	Vf @If=20mA	Ir @Vr=5V
Green	565	1.7 ~2.6 V	10μA max.
Yellow	585	1.7 ~2.6 V	10μA max.

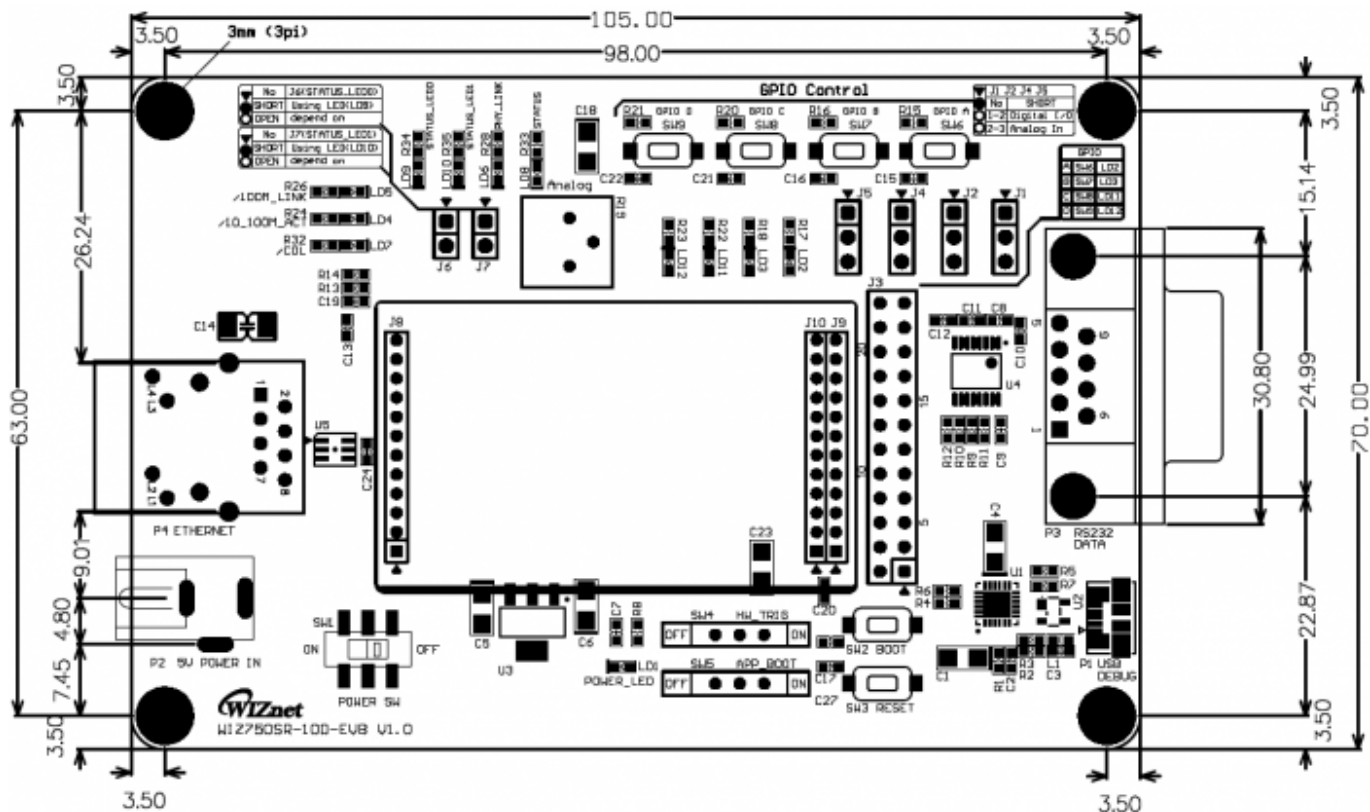
Pin Number	Pin	Signal
1	R1	TX+
2	R2	TX-
3	R3	TCT/RCT(Center tap)
4	R7	RX+
5	R8	RX-
6	L1+(Active LED)	Anode
7	L2- (Active LED)	Cathode
8	L3+(LINK LED)	Anode
9	L4- (LINK LED)	Cathode

Dimension

- WIZ750SR-100 Rev1.0 Dimension :
 - 50mm x 30mm (PCB board size)
 - 50mm x 30mm x 12mm (Included part size)



- WIZ750SR-100-EVB Rev1.0 Dimension :
 - 105mm x 70mm (PCB board size)
 - 105mm x 70mm x 18mm (Included part size)



Navigation



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- [Device Command Manual](#)
- [Troubleshooting Guide](#)
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- [WIZ750SR Getting Started Guide](#)
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WIZ750SR-110 Individual documents

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1) , 2)

This pin connect to MCU reset pin directly

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