

WIZ750SR-110 Datasheet

Supported Languages

- English only



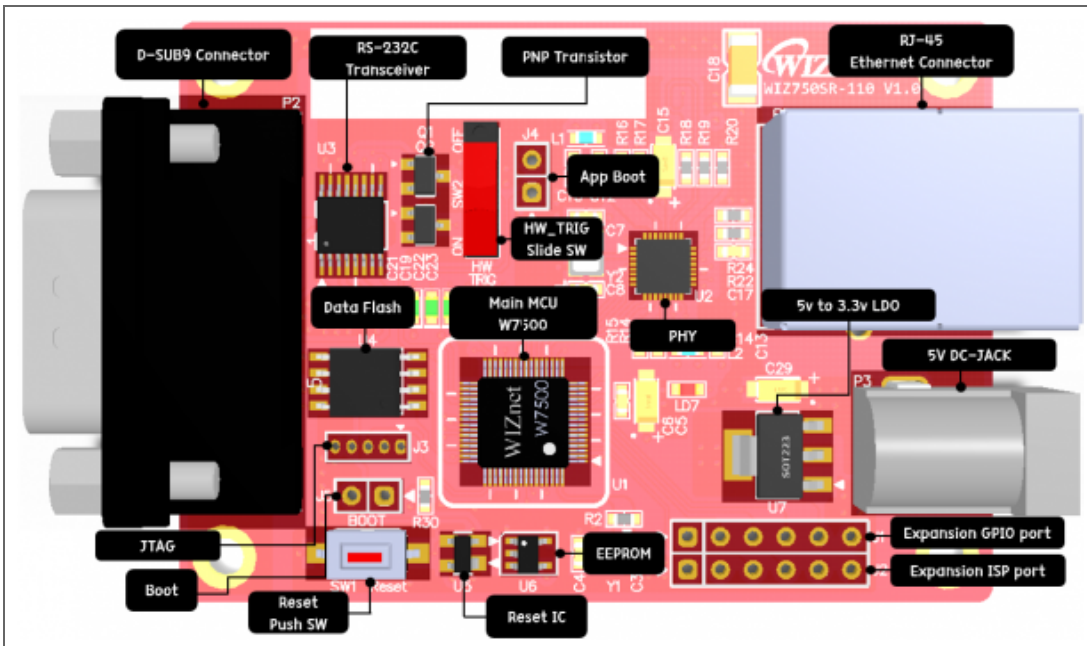
Hardware Specification

Product Spec Table

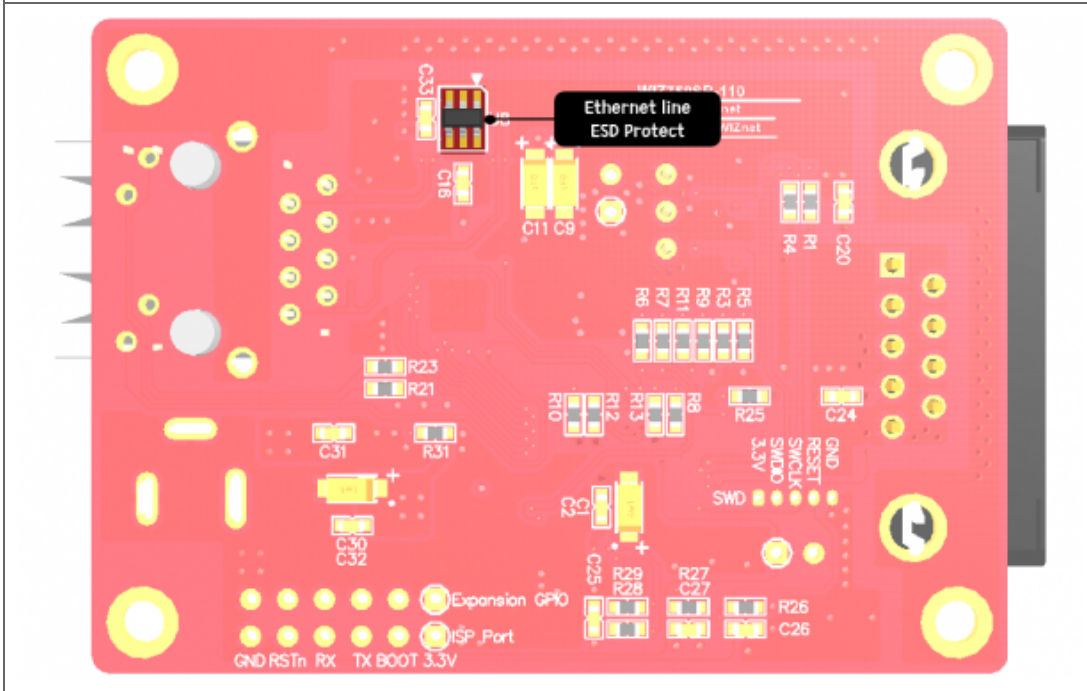
| Category | | Description |
|----------------|-----------------------|---|
| MCU | ARM Cortex-M0 Core | W7500 48Mhz maximum frequency Internal 8Mhz RC Oscillator Flash: 128KB Large flexible-size SRAM buffer for various User Application - Min 16KB available if full 32KB socket buffer used - Max 48KB 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 | Signal | 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 230Kbps |
| Dimension | | 62mm x 40mm (PCB board size) 62mm x 40mm x 18mm (Include part size) |
| Connector type | | RJ-45(Ethernet Connector) D-sub9 Connector(RS-232C) |

| Category | Description |
|---------------|--|
| Input Voltage | DC 5V |
| Temperature | -40°C ~ 85°C (Operation), -40°C ~ 85°C (Storage range) |

WIZ750SR-110 Callout

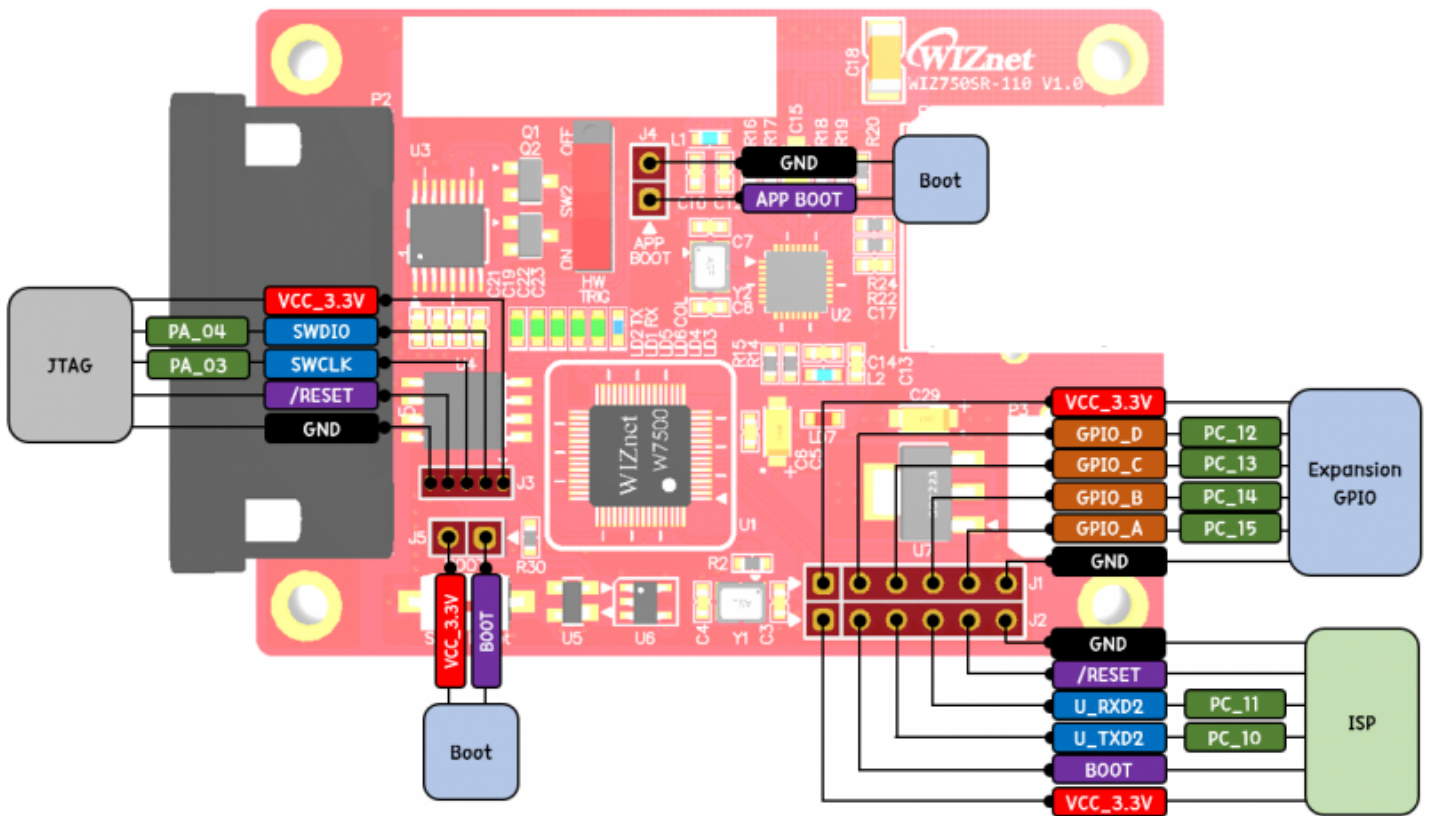


TOP

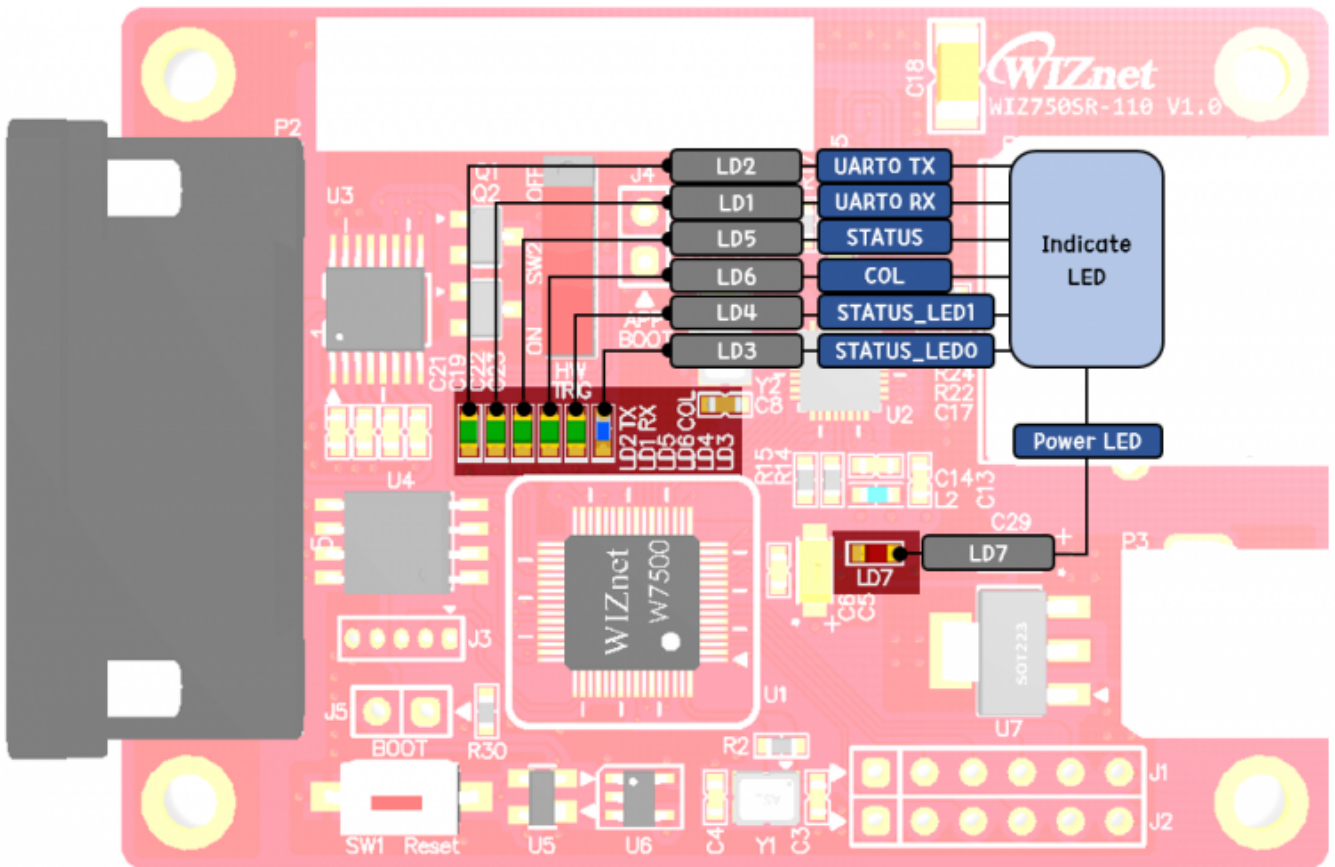


BOTTOM

WIZ750SR-110 Pinout



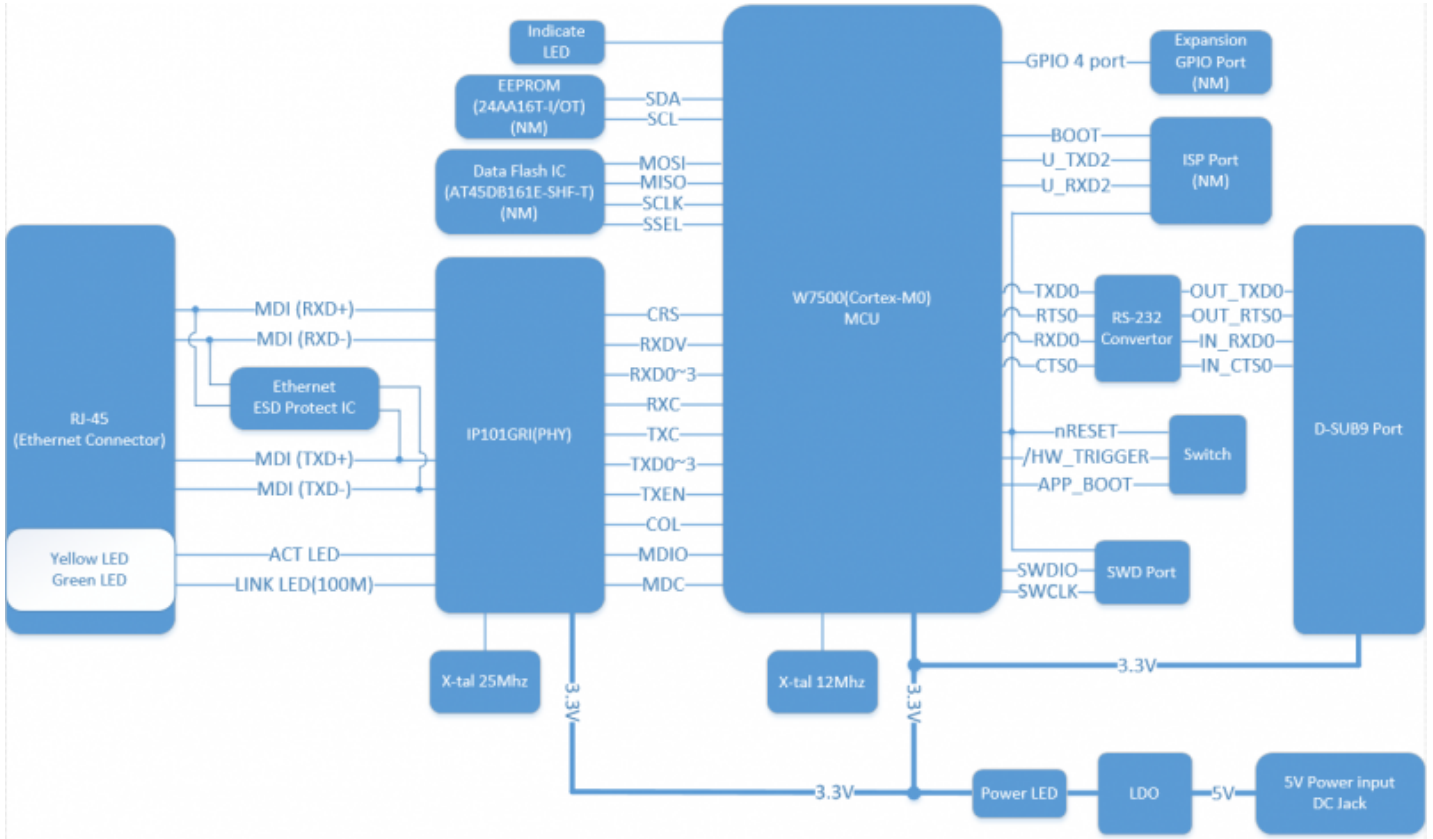
WIZ750SR-110 indicate



| Pin Number | Pin Name | Signal | Description |
|------------|----------|-------------|-----------------------------------|
| 1 | LD1 | UART0 RX | UART receiver indicate |
| 2 | LD2 | UART0 TX | UART Transceiver indicate |
| 3 | LD3 | Status_LED0 | PHY LINK check or initialize done |
| 4 | LD4 | Status_LED1 | TCP Connection |

| Pin Number | Pin Name | Signal | Description |
|------------|----------|-----------|--------------------|
| 5 | LD5 | STATUS | Not function |
| 6 | LD6 | COL | Collision Detected |
| 7 | LD7 | Power LED | - |

WIZ750SR-110 Block Diagram



Schematic & Artwork

WIZ750SR-110

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

Part list

WIZ750SR-110

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

Electrical Characteristics

Operating Conditions

| Symbol | Parameter | Pins | Min | Typ | Max | Unit |
|-----------|--|------|--------------|-----|-------|------|
| V_{cc} | Operating Voltage | 3.3V | 2.7 | 3.3 | 3.6 | V |
| V_{ss} | Ground | ALL | | 0 | 50 | mV |
| f_{CLK} | Internal CPU clock frequency | ALL | 0 | - | 48 | MHz |
| T_{stg} | Storage Temperature (max) | ALL | -40 | | 85 | °C |
| T_A | Ambient operating temperature | ALL | -40 | 85 | | °C |
| V_{IO} | I/O Signal voltage (Tolerance) | ALL | $V_{ss}-0.3$ | 3.3 | 5 | V |
| V_{IH} | Input high voltage | ALL | 2.145 | | | V |
| V_{IL} | Input low voltage | ALL | | | 1.155 | V |
| V_{OH} | Output high voltage (High driving strength Current load = 6mA) (Low driving strength Current load = 3mA) | ALL | 2.5 | | | V |
| V_{OL} | Output high voltage (High driving strength Current load = 6mA) (Low driving strength Current load = 3mA) | ALL | | | 0.5 | V |

Flash Memory

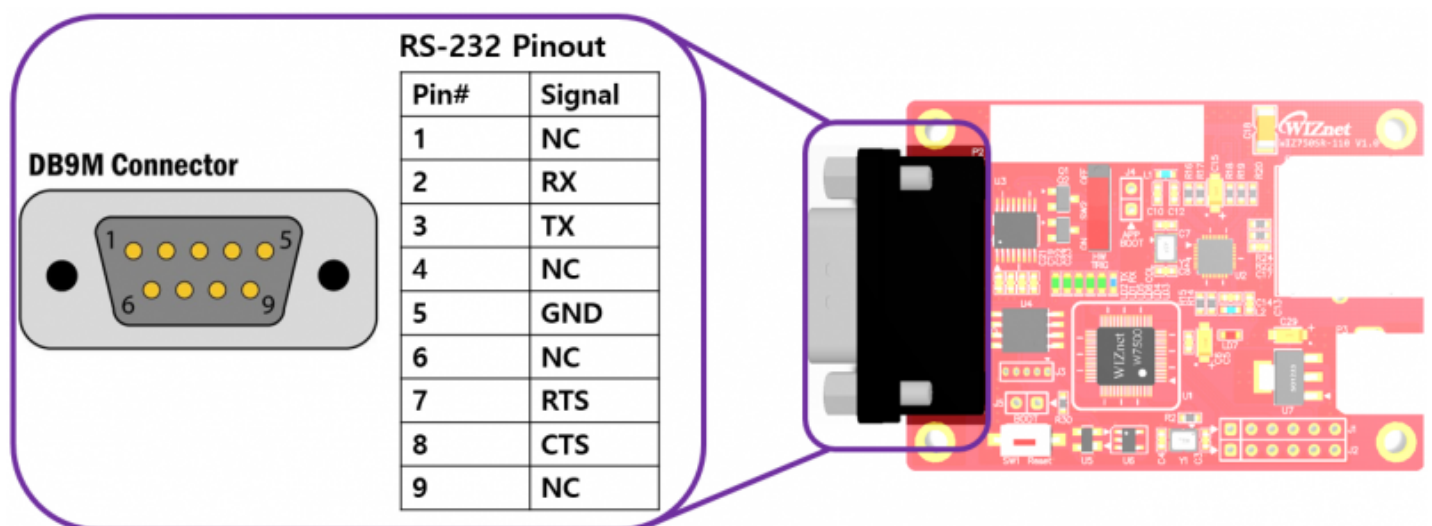
| Symbol | Parameter | Min | Unit |
|-----------|------------------|--------|--------|
| N_{END} | Sector Endurance | 10,000 | Cycles |
| T_{DR} | Data Retention | 10 | Years |

EEPROM

| Symbol | Parameter | Min | Unit |
|-----------|------------------|-----|--------|
| N_{END} | Sector Endurance | 1M | Cycles |
| T_{DR} | Data Retention | 200 | Years |

Connector Specification

Data D-SUB9 Connector (P2)

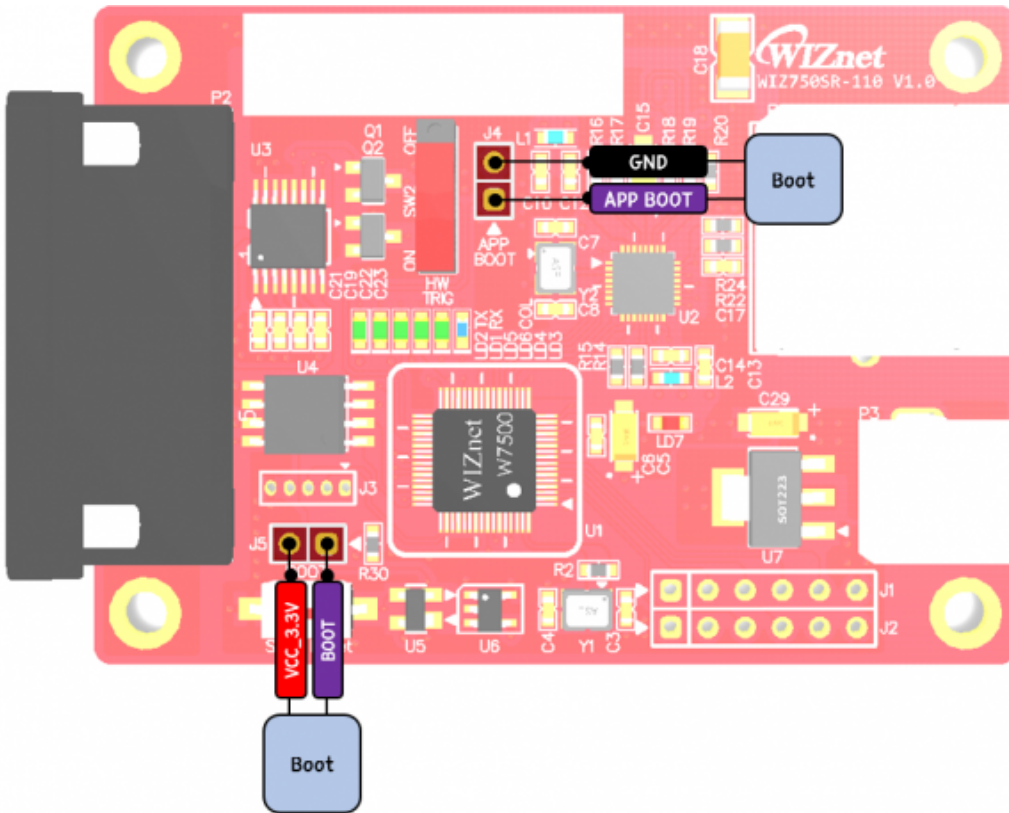


| Pin Number | Signal | Description |
|------------|--------|-------------|
| 1 | DCD | NC |

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

- WIZ750SR-110 supports only 4 signals. (TXD, RXD, CTS, RTS)
- If you want to use all 9 signals, you have to make them separately. or you must design new hardware
- TXD, RXD, CTS, RTS are provided as peripheral functions.
- And already made DSR and DTR signal in GPIO functions.(WIZ750SR Firmware code)
- Therefore, DCD and RI functions must be created.

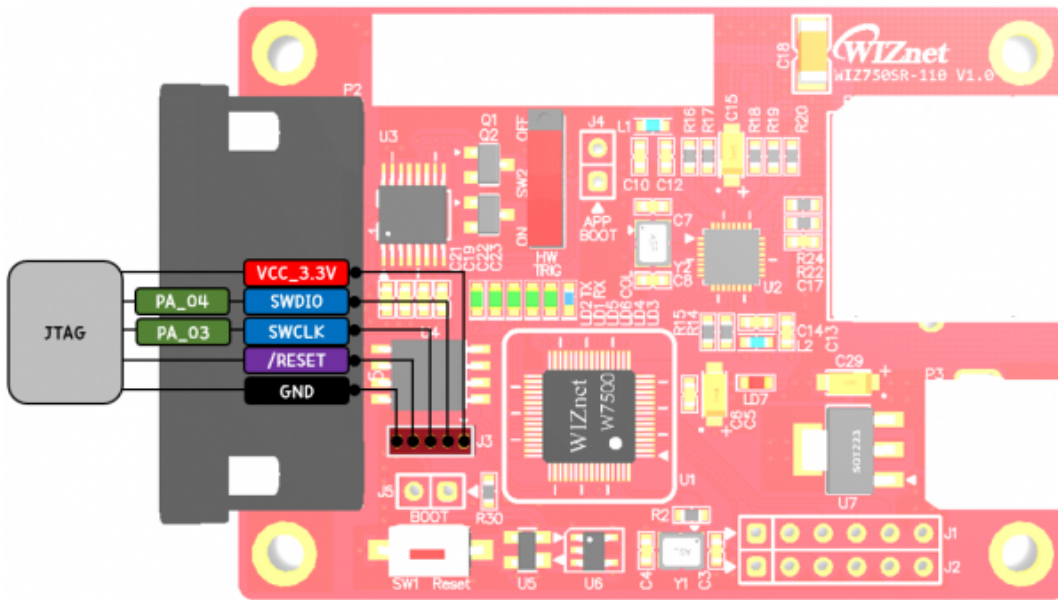
BOOT Pin (J4, J5)



| Parts | Pin Number | Signal | Description |
|-------|------------|----------|-------------------------------|
| J4 | 1 | APP BOOT | Application Jump at BOOT mode |
| | 2 | GND | System Ground |

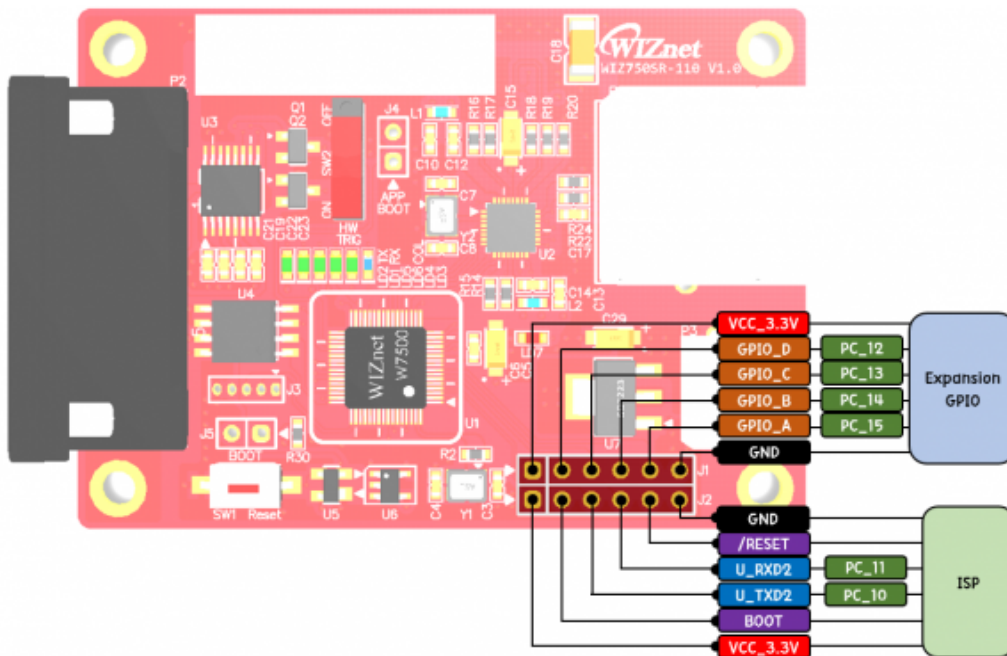
| Parts | Pin Number | Signal | Description |
|-------|------------|--------|---------------------|
| J5 | 1 | BOOT | System Ground |
| | 2 | VCC | System Power (3.3V) |

SWD(JTAG) Pin (J3)



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

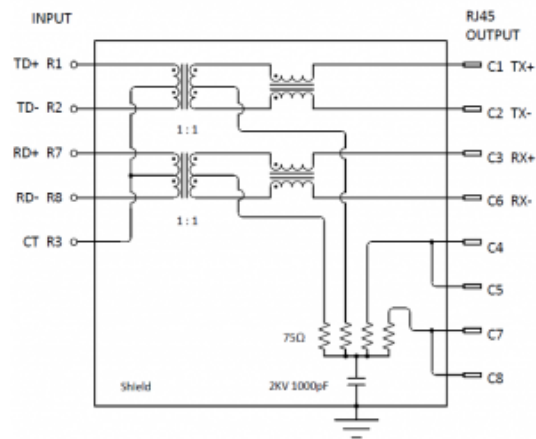
ISP Port & Expansion GPIO (J1, J2)



| Parts | Pin Number | Signal | Description |
|-------|------------|-----------------|--------------------------------------|
| J1 | 1 | VCC | System Power (3.3V) |
| | 2 | Expansion GPIOD | Expansion User's depend on GPIO port |
| | 3 | Expansion GPIOC | |
| | 4 | Expansion GPIOB | |
| | 5 | Expansion GPIOA | |
| | 6 | GND | |

| Parts | Pin Number | Signal | Description |
|-------|------------|--------|---|
| J2 | 1 | VCC | System Power (3.3V) |
| | 2 | BOOT | BOOT SW |
| | 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) |
| | 6 | GND | System Ground |

RJ-45 Connector (BS-RB10005)



| Emitting Color | Ap (nm) | Vf @If=20mA | Ir @Vf=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-110 Rev1.0 Dimension :
 - 63mm x 45mm (PCB board size)
 - 75mm x 45mm x 18mm (Included part size)

