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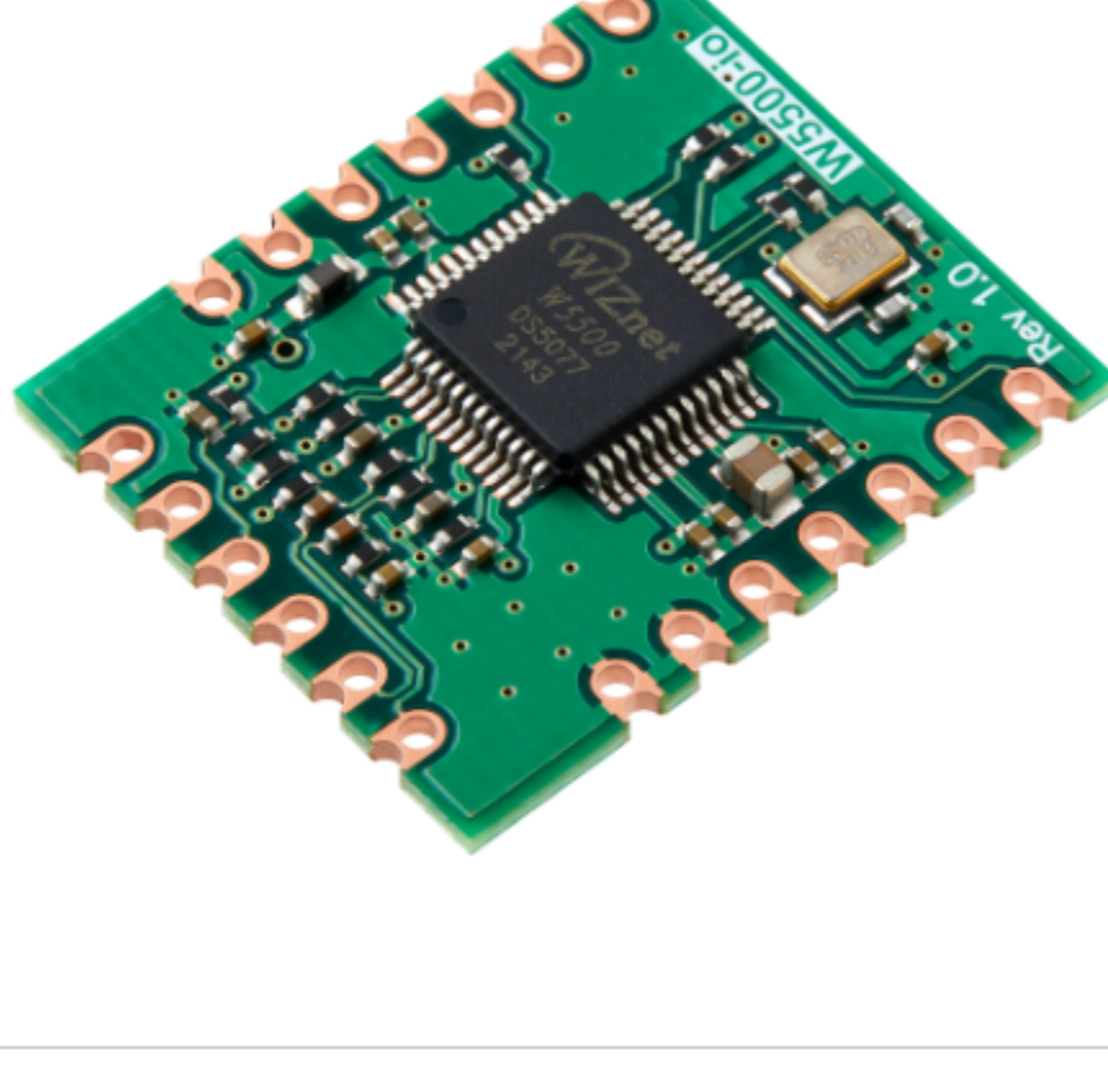
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W5500-io

Overview

W5500-io is a compact size network module that includes a W5500 (TCP/IP hardwired chip and PHY embedded).It can be used as a component and no effort is required to interface W5500. The W5500-io an ideal option for users who want to develop their Internet enabling systems rapidly. W5500-io is hardware compatible with W5100s-io and W6100-io.

For the detailed information on implementation of Hardware TCP/IP, refer to the [W5500 Datasheet](#).



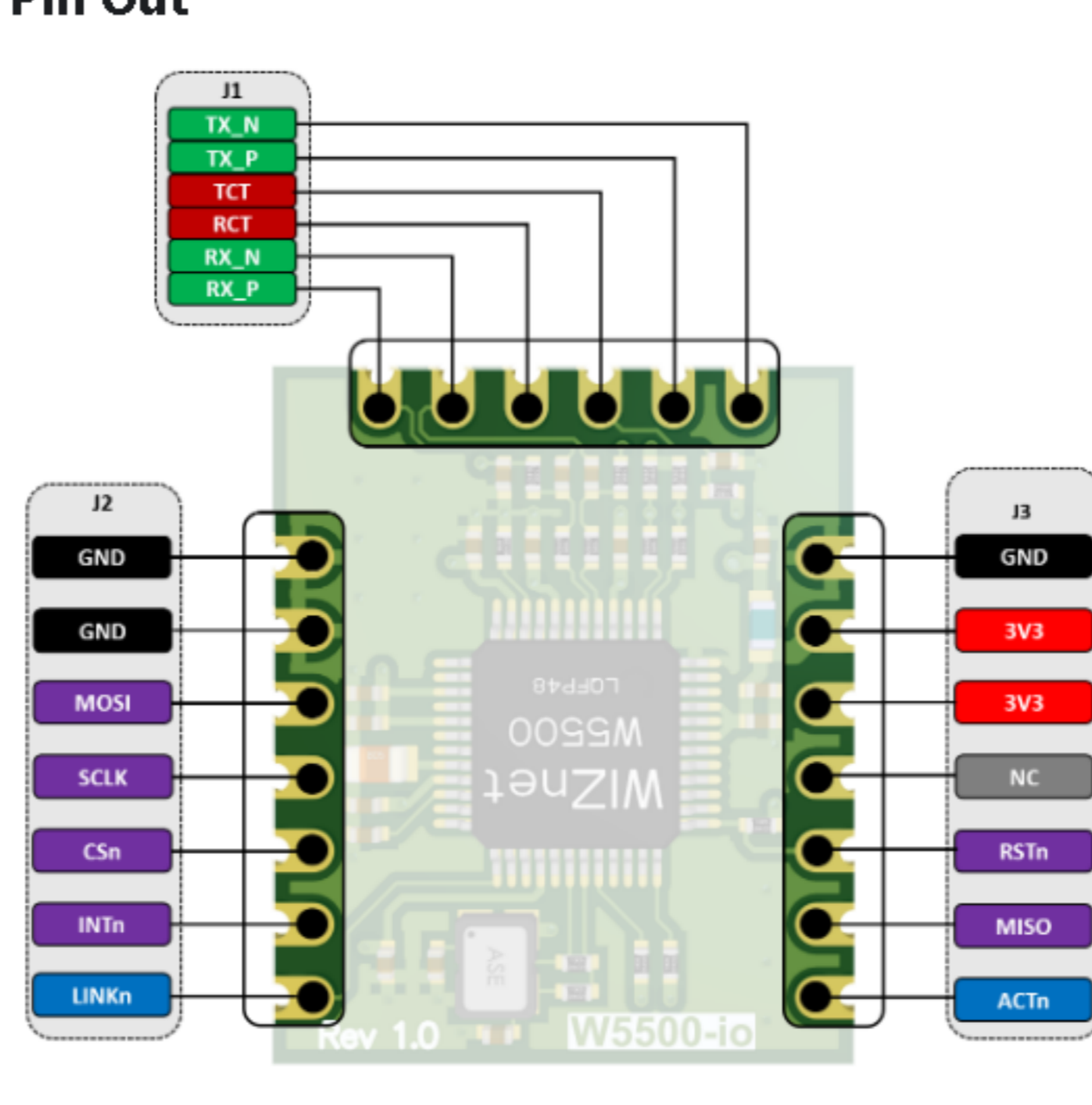
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Hardware Specification

W5500-io

- Plugin Network Module.
- Hardware compatible with W5100S-io, W6100-io.
- Usable without H/W design for W5500.
- Fast evaluation for W5500 & MCU in the target board.
- Support high speed SPI interface.
- Support power down mode and Wake-on-LAN function
- Very small form factor : 20mm x 24mm x 2.6mm

Pin Out



Pin Description

Pin No.	Pin Type	Pin Name	Description	
J1	1	I	RX_P	RX_P
...	2	I	RX_N	RX_N
...	3	P	RCT	RX Center Tap This pin should be connect with external pulse transformer's RCT pin
...	4	P	TCT	TX Center Tap This pin should be connect with external pulse transformer's TCT pin
...	5	O	TX_P	TX_P
...	6	O	TX_N	TX_N

Pin No.	Pin Type	Pin Name	Description	
J2	1	P	GND	Ground
...	2	P	GND	Ground
...	3	I	MOSI	Master Out Slave In This pin is used for SPI MOSI signal pin
...	4	I	SCLK	SPI clock input
...	5	I	CSn	Chip select input
...	6	O	INTn	Interrupt output Low: Interrupt asserted from W5500 High: No interrupt
...	7	O	LINK	LINK status output Low : Link High : Un Link

Pin No.	Pin Type	Pin Name	Description	
J3	1	P	GND	Ground
...	2	P	3.3V	Power : 3.3V power supply
...	3	P	3.3V	Power : 3.3V power supply
...	4	-	NC	Not Connect
...	5	I	RSTn	Reset : Low activity Hold at least 500us after asserted to LOW and keep HIGH until next Reset needed.
...	6	O	MISO	SPI Master In Slave Out This pin is used for SPI MISO signal pin
...	7	O	ACTn	Active LED Low: Carrier sense from the active PMD High: No carrier sense

Characteristic

DC Characteristic

Symbol	Parameter	Pins	Min	Typ	Max	Unit
VDD	Supply voltage	3.3V	2.97	3.3	3.63	V
VIL	High level input voltage	ALL	2.0		5.5	V
VIH	Low level input voltage	ALL	-0.3		0.8	V
VOL	Low level output voltage	ALL			0.4	V
VOH	High level output voltage	ALL	2.4			V
LOL	Low level output Current	ALL	8.6	13.9	18.9	mA
LOH	High level output Current	ALL	12.5	26.9	47.1	mA
IDD	Supply Current (Normal operation mode)	3.3V		132		mA
LOH	Supply Current (Power Down mode)	3.3V		13		mA

Power Dissipation

Condition	Min	Typ	Max	Unit
100M Link	-	128	-	mA
10M Link	-	75	-	mA
Un-Link (Auto-negotiation mode)	-	65	-	mA
100M Transmitting	-	132	-	mA
10M Transmitting	-	79	-	mA
Power Down mode	-	13	-	mA

SPI Operations

As W5500-io consists of W5500 and others, SPI operation of W5500-io follows one of W5500. For more information about SPI operation of W5500-io, please refer to [W5500 Datasheet](#).

Schematic & Artwork

Module

- Revision 1.0 [W5500-io V100 Schematic\(PDF\)](#)
- Revision 1.0 [W5500-io V100 Schematic\(Altium\)](#)

Reference Schematic

- Revision 1.0 [W5500-io V100 Reference Schematic\(PDF\)](#)

Part list

- Revision 1.0 [W5500-io V100 Part list\(PDF\)](#)
- Revision 1.0 [W5500-io V100 Part list\(Excel\)](#)

Dimension

- W5500-io V100 Dimension
 - 24mm x 20mm x 1.0mm (PCB board size)
 - 24mm x 20mm x 2.6mm (Included part size)

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