



# TS-MT7620AVIV

## Network Module

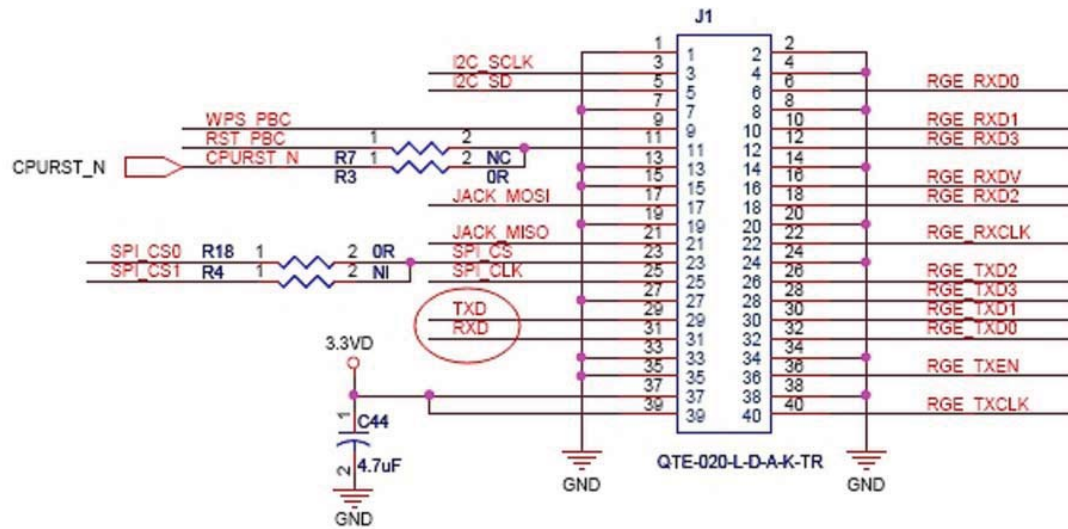
Model no. TS-MT7620AVIV (Ver 1.0)

July, 2015

### I Product Specification

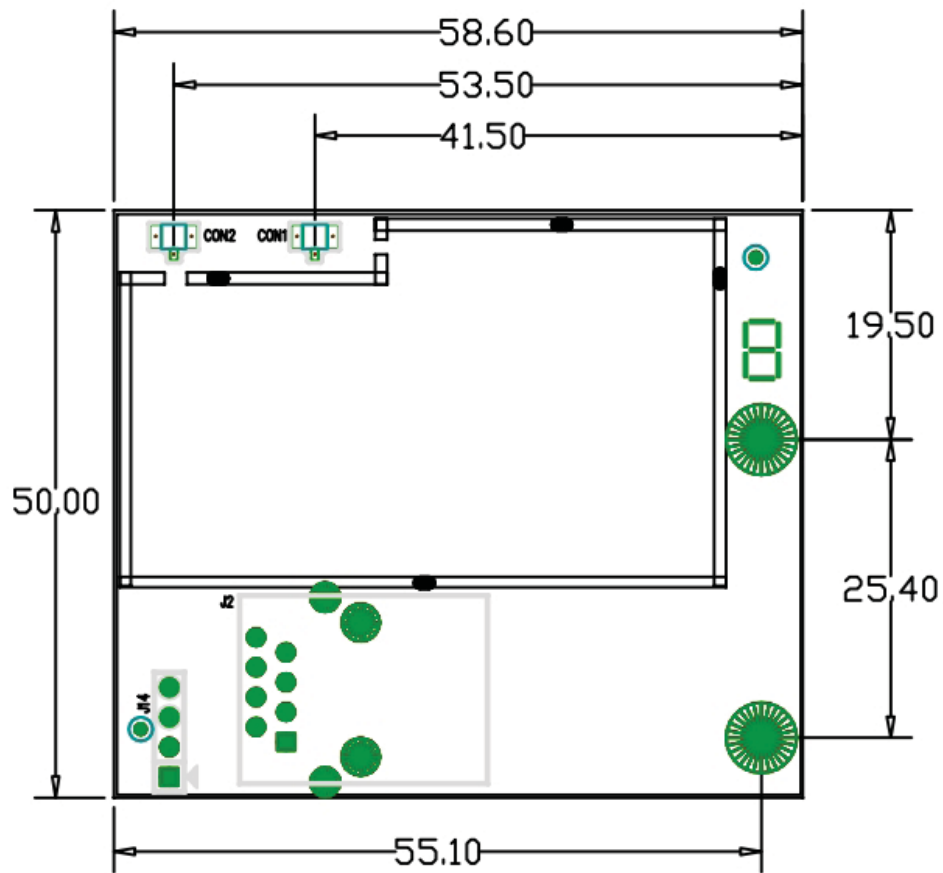
|                                               |                                                                                                                 |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>                               | IEEE802.11b, 802.11g, IEEE802.11n                                                                               |
| <b>Data Rate</b>                              | 11n: up to 300Mbps (dynamic adjust)<br>11g: up to 54Mbps (dynamic adjust)<br>11b: up to 11Mbps (dynamic adjust) |
| <b>Receiver Sensitivity</b>                   | 300M: -62dBm@10% PER<br>54M: -68dBm@10% PER<br>11M: -81dBm@8% PER                                               |
| <b>Transmit power</b>                         | 11b: 21±1dbm<br>11g: 19±1dbm<br>11n H20: 18±1dbm ; 11n H40: 16±1dbm                                             |
| <b>External interface and indicator light</b> | <b>External interface</b>                                                                                       |
|                                               | 1*10/100Base-TX Ethernet Port                                                                                   |
|                                               | 1*SPI                                                                                                           |
|                                               | 1*I2C                                                                                                           |
|                                               | 2*UART                                                                                                          |
|                                               | 1*RGMII.                                                                                                        |
|                                               | <b>Indicator</b>                                                                                                |
|                                               | 1* LAN indicator LED                                                                                            |
| <b>Antenna situation</b>                      | 2*IPEX                                                                                                          |
| <b>Management type</b>                        | Local/Remote Web-based configuration                                                                            |
| <b>Operating Temperature</b>                  | 0℃ ~ +50℃                                                                                                       |
| <b>Storage</b>                                | -20℃ ~ +70℃                                                                                                     |
| <b>Humidity</b>                               | 5 ~ 95% non-condensing                                                                                          |
| <b>Power input</b>                            | DC 3.3V ±0.3V 0.7A(Max)                                                                                         |

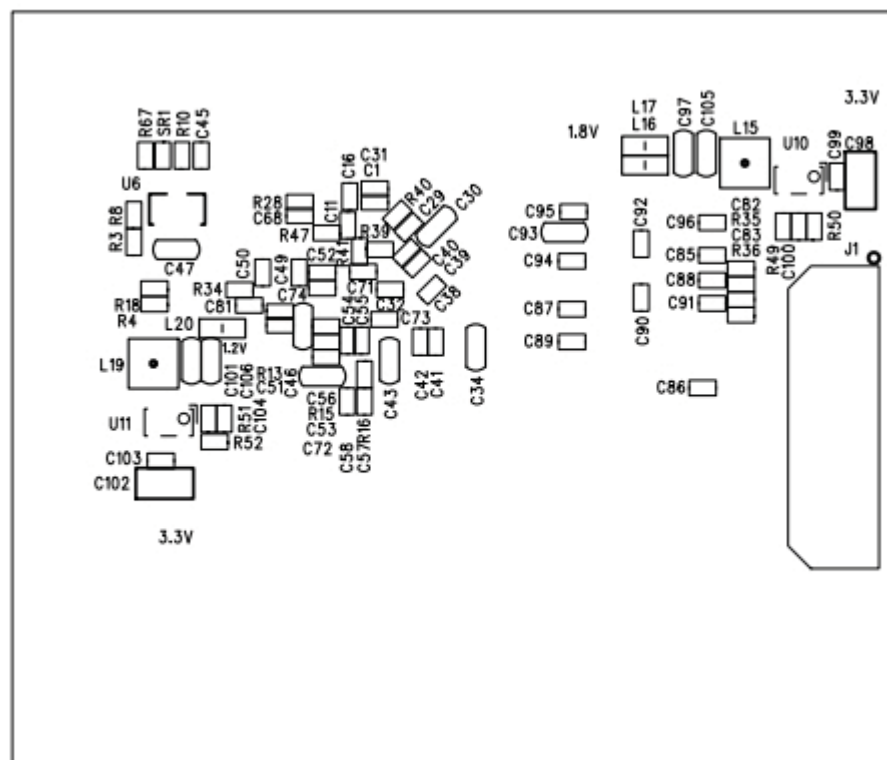
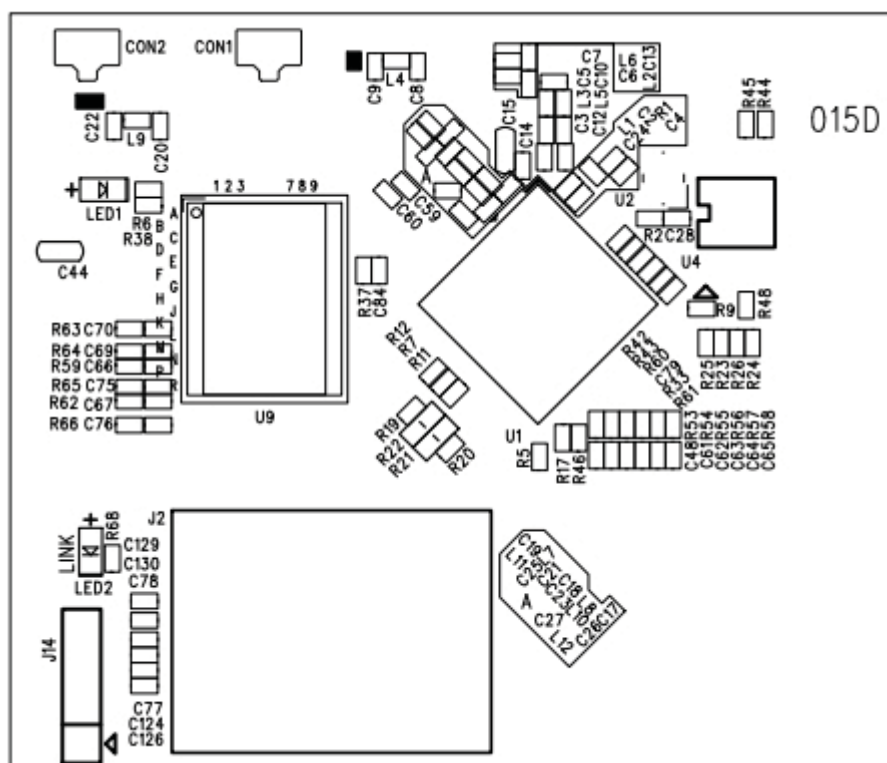
## II Connector PIN Define



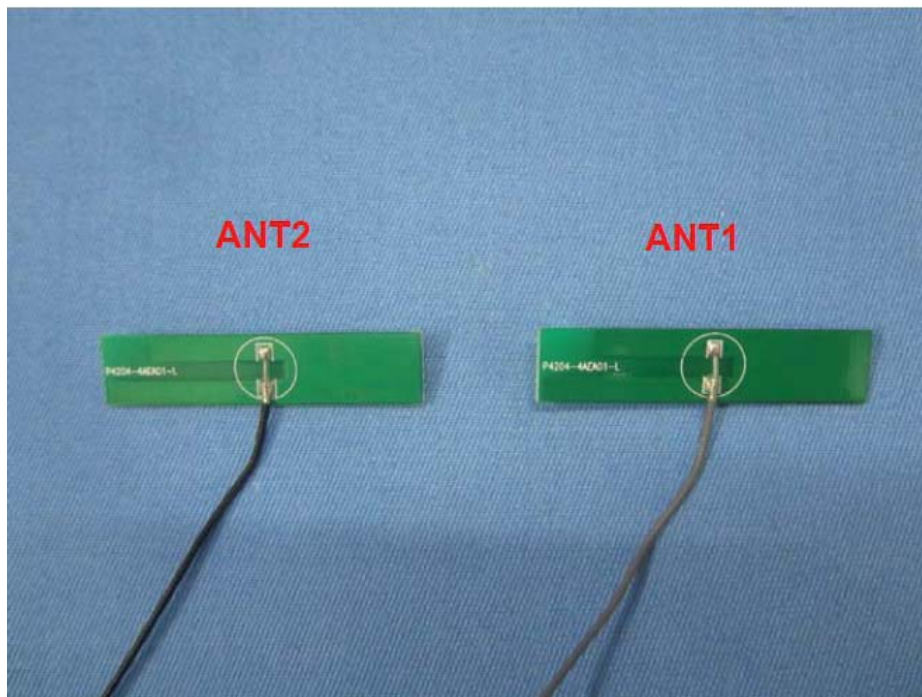
| PIN | Pin Define | Function Describe         | PIN | Pin Define | Function Describe   |
|-----|------------|---------------------------|-----|------------|---------------------|
| 1   | GND        | Ground                    | 2   | GND        | Ground              |
| 3   | I2C_SCLK   | I2C Clock                 | 4   | GND        | Ground              |
| 5   | I2C_SDA    | I2C Data                  | 6   | RGE_RXD0   | RGMII RX Data Bit 0 |
| 7   | GND        | Ground                    | 8   | GND        | Ground              |
| 9   | GPI012     | GPIO                      | 10  | RGE_RXD1   | RGMII RX Data Bit 1 |
| 11  | CPURST_N   | CPU Reset(Active Low)     | 12  | RGE_RXD3   | RGMII RX Data Bit 3 |
| 13  | GND        | Ground                    | 14  | GND        | Ground              |
| 15  | GND        | Ground                    | 16  | RGE_RXDV   | RGMII RX Data Valid |
| 17  | SPI_MISO   | Master Input/Slave Output | 18  | RGE_RXD2   | RGMII RX Data Bit 2 |
| 19  | GND        | Ground                    | 20  | GND        | Ground              |
| 21  | SPI_MOSI   | Master Output/Slave Input | 22  | RGE_RXCLK  | RGMII RX Clock      |
| 23  | SPI_CS0    | SPI Chip Select 0         | 24  | GND        | Ground              |
| 25  | SPI_CLK    | SPI Clock                 | 26  | RGE_TXD2   | RGMII TX Data Bit 2 |
| 27  | GND        | Ground                    | 28  | RGE_TXD3   | RGMII TX Data Bit 3 |
| 29  | TXD1       | UART1 TXD                 | 30  | RGE_TXD1   | RGMII TX Data Bit 1 |
| 31  | RXD1       | UART1 RXD                 | 32  | RGE_TXD0   | RGMII TX Data Bit 0 |
| 33  | GND        | Ground                    | 34  | GND        | Ground              |
| 35  | GND        | Ground                    | 36  | RGE_TXEN   | RGMII TX Enable     |
| 37  | +3.3V      | +3.3V Power Supply        | 38  | GND        | Ground              |
| 39  | +3.3V      | +3.3V Power Supply        | 40  | RGE_TXCLK  | RGMII TX Clock      |

### III Mechanical Drawing





#### IV External Antennas



1. Antenna 1: ANTENNA PCB SINGLE BAND W/I-PEX CABLE ASSY 286MM  
**PULSE #W3525B81** ANTENNA gain 2dBi
2. Antenna 2:ANTENNA PCB SINGLE BAND W/I-PEX CABLE ASSY 384MM  
**PULSE #W3525B384** ANTENNA gain 2dBi

## **FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Regulatory Information**

The devices must be installed and used in strict accordance with the instructions as described in the user documentation that comes with the product.

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.

This exterior label can use wording such as the following:

"Contains Transmitter Module FCC ID: YVK-MT7620AVIV"

When the module is installed inside another device, the user manual of this device must contain below warning statements:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This modular could be installed in the fix or mobile devices only, installed in the portable device, like USB dongle is forbidden. This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This modular must be installed and operated with a minimum distance of 20 cm between the radiator and user body.

**For manufacturer:**

The end product into which the module will be installed should be the fix or mobile devices only, the portable device, like USB dongle is forbidden.

The end product into which the module will be installed should be installed and operated with a minimum distance of 20 cm between the radiator and user body.