



Preliminary Product Specification

W625D0

IEEE 802.11ABGN 2T2R USB Dongle/ Module

Version: 0.3

Date: Jun. 21, 2012

Release History

| DATE | REV | Description of Change |
|------------|-----|---|
| 2012/04/03 | 0.1 | Initial Release |
| 2012/06/18 | 0.2 | Add pin header option for USB connection. |
| 2012/06/21 | 0.3 | Add wafer connector |
| | | |
| | | |
| | | |



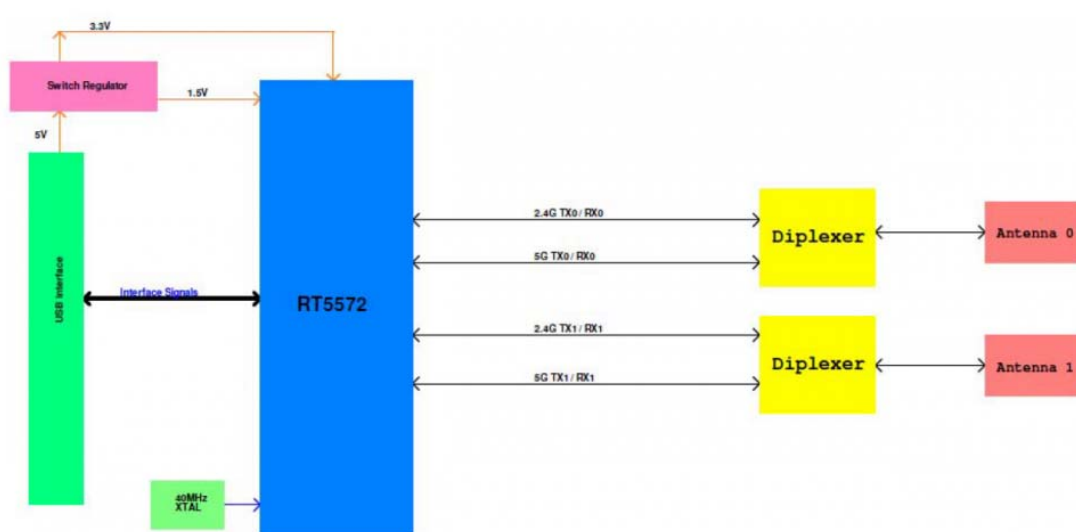
W625D0

IEEE 802.11ABGN 2T2R USB Dongle/ Module

1 Product Features

- 2T2R 2.4/5 GHz with 300 Mbps PHY data rate.
- USB 2.0 interface
- QoS: WMM & WMM-PS support
- Multiple BSSID support
- Reverse Direction Grant Data Flow and Frame Aggregation
- Maximum likelihood Decoding support
- Cisco CCX 5.0 support
- Low Power usage with Advanced Power Management
- Security: WEP/ TKIP/ AES/ WPA/ WPA2/ WAP

2 Block Diagram

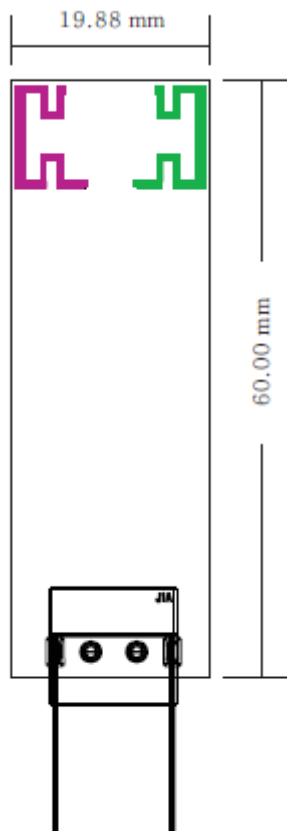


3 General Specification

| ■ Module Name | | | | | |
|-----------------------------|--------|---|---------|---------|------|
| • XW625D | | | | | |
| ■ Product Specification | | | | | |
| • WLAN Standard | | IEEE 802.11 a/b/g/n | | | |
| • Host Interface | | USB 2.0 | | | |
| • Host Connector Options | | USB A type connector | | | |
| | | 4 Pin 2.5mm pitch wafer connector | | | |
| • Major Chipset | | Ralink RT5572 | | | |
| • Dimensions | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| | Length | | TBD | | mm |
| | Width | | TBD | | mm |
| | Height | | TBD | | mm |
| | Weight | | TBD | | g |
| • Antenna Connector Options | | 2 RF ports with U.FL connector for external dual band antenna | | | |
| | | 2 printed PCB antennas on board | | | |
| ■ Operating Condition | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| • Voltage | | DC | 5 | | V |
| • Temperature | | 0 | | 70 | °C |
| • Storage temperature | | -20 | | 70 | °C |
| • Humidity Non-Operating | | 10 | | 80 | % |
| ■ Electrical Specification | | | | | |
| • Frequency Range | | 2400 ~ 2483 MHz; 5150 ~ 5850 MHz | | | |
| • Band Width | | 20MHz/ 40MHz Mixed mode | | | |
| • Output power | | | | | |
| 2.4GHz | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| 802.11b | | | 18 | | dBm |
| 802.11g | | 54Mbps | 15 | | dBm |
| 802.11n/ HT20 | | MCS7/15 | 14 | | dBm |
| 802.11n/ HT40 | | MCS7/15 | 14 | | dBm |
| • Receiver Sensitivity | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| 802.11b | | 11Mbps | -88 | -85 | dBm |
| 802.11g | | 54Mbps | -74 | -71 | dBm |

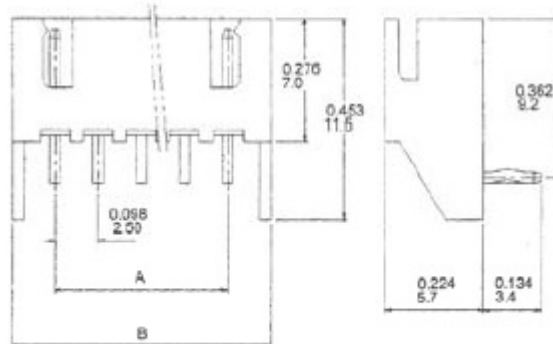
| | | | | | |
|------------------------|---------|---------|---------|---------|------|
| 802.11n/ HT20 | MCS7 | | -66 | -64 | dBm |
| 802.11n/ HT40 | MCS7 | | -63 | -61 | dBm |
| 5GHz | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| 802.11a | 54Mbps | | 12 | | dBm |
| 802.11n/ HT20 | MCS7/15 | | 11 | | dBm |
| 802.11n/ HT40 | MCS7/15 | | 11 | | dBm |
| • Receiver Sensitivity | | | | | |
| | | Minimum | Typical | Maximum | Unit |
| 802.11a | 54Mbps | | -72 | -69 | dBm |
| 802.11n/ HT20 | MCS7 | | -66 | -64 | dBm |
| 802.11n/ HT40 | MCS7 | | -63 | -61 | dBm |

4 Mechanical Dimension



5 Wafer Connector

WAFER PEC 2503-WR(90°)



| Part No. | Poles | Dimension in (mm) | | |
|----------|-------|-------------------|-------------|-------------|
| | | A | B | |
| 2503 | WR | 2 | 0.098(2.5) | 0.295(7.5) |
| 2503 | | 3 | 0.197(5.0) | 0.394(10.0) |
| 2503 | | 4 | 0.295(7.5) | 0.492(12.5) |
| 2503 | | 5 | 0.394(10.0) | 0.591(15.0) |
| 2503 | | 6 | 0.492(12.5) | 0.689(17.5) |
| 2503 | | 7 | 0.591(15.0) | 0.787(20.0) |
| 2503 | | 8 | 0.689(17.5) | 0.886(22.5) |
| 2503 | WS | 9 | 0.787(20.0) | 0.984(25.0) |
| 2503 | | 10 | 0.886(22.5) | 1.083(27.5) |
| 2503 | | 11 | 0.984(25.0) | 1.181(30.0) |
| 2503 | | 12 | 1.083(27.5) | 1.280(32.5) |
| 2503 | | 13 | 1.181(30.0) | 1.378(35.0) |
| 2503 | | 14 | 1.280(32.5) | 1.476(37.5) |
| 2503 | | 15 | 1.378(35.0) | 1.575(40.0) |
| 2503 | | 20 | 1.870(47.5) | 2.066(52.5) |

6 Power Consumption

| | 5V Current (mA) |
|---------------|-----------------|
| Continuous Tx | 410 |
| Continuous Rx | 250 |
| Power Saving | 40 |
| Standby | 130 |