

Features

- Qualcomm Atheros QCN6102
- 5GHz,max 23dBm per chain,up to 2402Mbps
- Single Band 5GHz 2x2 WiFi 6(802.11ax)
- 2 spatial streams (2SS)
- M.2 E Key Interface
- PCI Express 3.0 Interface



Applications

- Security Surveillance
- Commercial radio coverage
- Hotel Wireless application
- Country coverage
- Forest fire protection engineering
- Some special scene application



Product Description

DR6102-5G based on QCN6102 Chipset is an enterprise wireless module integrated with 2x2 MU-MIMO 5GHz Single Band Wireless Module designed specifically to provide users with mobile access to high-bandwidth video streaming,voice,and data transmission for office and challenging RF environment in factories,warehouses establishment.

Absolute Maximum Rating

| Parameter | Rating | Unit |
|-----------------------------|---------------------------|------|
| Operating Temperature Range | -20 to 70 | °C |
| Storage Temperature Range | -40 to 90 | °C |
| Operating Humidity Range | 5 to +95 (non-condensing) | % |
| Storage Humidity Range | 0 to +90 (non-condensing) | % |

Hardware Specifications

| Symbol | Parameter |
|----------------------------------|--|
| Chipset | Qualcomm Atheros QCN6102 |
| WLAN Host Interface | PCI Express 3.0 Interface |
| System Memory | No,Caldata saved in DR5018's Flash |
| Standard Operating Voltage | 5V |
| Operating Systems | QSDK |
| Host Interface | M.2 E Key |
| Antenna Cable / Port | 2 x UFL connector,2T2R |
| Frequency Range | 5.15GHz~5.95GHz |
| Data Rates for WALN | 5GHz,max 23dBm per chain,up to 2402Mbps |
| Channel Spectrum Widths for WLAN | Support 20/40/80/ 160MHz at 5GHz |
| Modulation Techniques | OFDMA: BPSK,QPSK,DBPSK,DQPSK,16-QAM,64-QAM,256-QAM,1024-QAM, ,4096-QAM |
| Temperature Range | Operating: -20° C to 70° C,Storage: -40° C to 90° C |
| Humidity | Operating: 5% to 95% (non-condensing),Storage: Max. 90% (non-condensing) |
| Certification | TBD |
| Power Consumption | TBD |
| Dimensions (WxHxD) | 35mm x 58mm x 6mm |

Product Version

| | P/N | CPU | Chains | Frequency |
|--|-----|-----|--------|-----------|
|--|-----|-----|--------|-----------|

| | | | | |
|---|-----------|---------|---|-----------|
| 1 | DR6102-5G | QCN6102 | 2 | 5150~5950 |
|---|-----------|---------|---|-----------|

RF Parameter(5.15GHz-5.95GHz)

| Operating Mode | Data Rate | TX Power | RX Sensitivity | Tolerance |
|--------------------------|-----------|----------|----------------|-----------|
| 5GHz 802.11a | 6Mbps | 27dbm | -96 | ±2dB |
| | 54Mbps | 25dbm | -81 | ±2dB |
| 5Ghz 802.11n/ac VHT20 | MCS0 | 27dbm | -96 | ±2dB |
| | MCS7 | 25dbm | -78 | ±2dB |
| | MCS8 | 24dBm | -76 | ±2dB |
| 5Ghz 802.11n/ac VHT40 | MCS0 | 27dbm | -93 | ±2dB |
| | MCS7 | 25dBm | -75 | ±2dB |
| | MCS8 | 24dBm | -73 | ±2dB |
| | MCS9 | 23dBm | -72 | ±2dB |
| 5Ghz 802.11n/ac VHT80 | MCS0 | 26dbm | -90 | ±2dB |
| | MCS7 | 25dBm | -72 | ±2dB |
| | MCS8 | 24dBm | -70 | ±2dB |
| | MCS9 | 23dBm | -68 | ±2dB |
| 5Ghz 802.11ax HE20 | MCS0 | 27dbm | -95 | ±2dB |
| | MCS9 | 23dBm | -74 | ±2dB |
| | MCS10 | 22dBm | -69 | ±2dB |
| | MCS11 | 22dBm | -66 | ±2dB |
| 5Ghz 802.11ax HE40 | MCS0 | 27dbm | -92 | ±2dB |
| | MCS9 | 23dBm | -71 | ±2dB |
| | MCS10 | 22dBm | -66 | ±2dB |
| | MCS11 | 22dBm | -63 | ±2dB |
| 5Ghz 802.11ax HE80 | MCS0 | 26dbm | -89 | ±2dB |
| | MCS9 | 24dBm | -68 | ±2dB |



DR6102-5G

WiFi6 (802.11ax)2x2 MU-MIMO 5GHz
QCN6102 Single Band Wireless Module

| | | | | |
|------------------------|-------|-------|-----|------------|
| | MCS10 | 22dBm | -63 | ± 2 dB |
| | MCS11 | 20dBm | -60 | ± 2 dB |
| 5Ghz 802.11ax HE160 | MCS0 | 24dbm | -86 | ± 2 dB |
| | MCS9 | 21dBm | -65 | ± 2 dB |
| | MCS10 | 20dBm | -60 | ± 2 dB |
| | MCS11 | 17dBm | -57 | ± 2 dB |