



DR-AP40X9

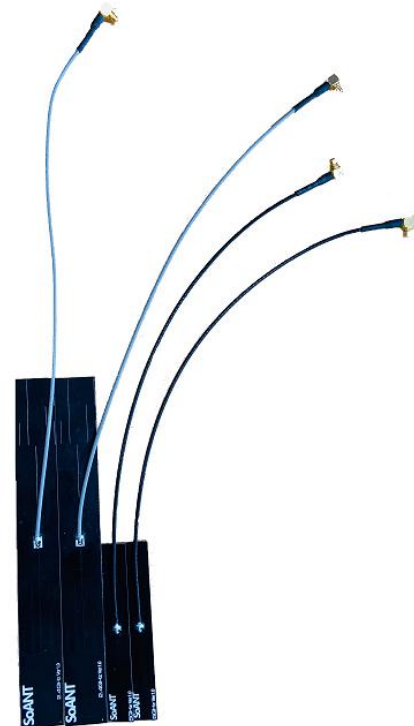
Access Point Wireless Module

Dual band 11AC Wave2 Module

DR-AP40X9 (Two Versions) is a 2x2 2.4G&5G high power Radio AP Router which including 1x DR40X9(IPQ4019/IPQ4029) Board; 2 x 2.4G&5G Onmi Antennas; 1 x POE Adapter(24V[^]1A~48V[^]0.6A); 1 x Enclosure.

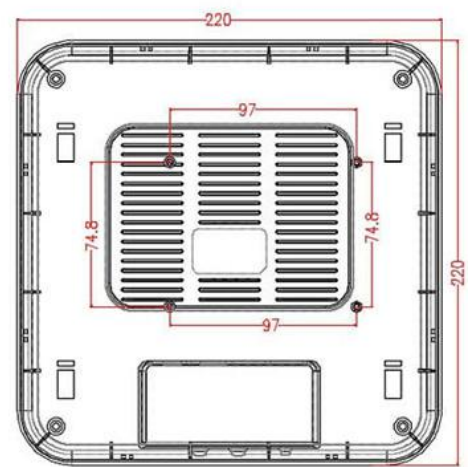
Onmi Antenna

- 2 x 2.4G&5G Antenna
- PCB Antenna
- 2.4G: 4dbi ;5G: 6dbi



Enclosure

- Dimension: 220x 220 x 42.54mm
- UV Protected and Durable ABS Radome
- Support Wallys' PCBA Mainboard



Features

- Featuring with industrial-grade IPQ4029/IPQ4019 chipset;
- Integrated with 2x 2 5G high power (27dbm per chain) Radio module and 2x2 2.4G high power (27dbm per chain) Radio module;
- Support 4.940GHz to 5.825GHz Frequency Range;
- Support 2.412GHz to 2.482GHz;
- Support 2 x 5G MMCX Connectors and 2x2.4G MMCX;
- 5MHz/10MHz/20MHz/40MHz/80MHz Bandwidth;
- Support 11ABGN/AC;
- RoHS compliance ensure a high level protection of human health and the environment from risks that can be posed by chemicals;

Applications

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

Product Description

DR4029/DR4019 based on IPQ4029/IPQ4019 chipset is an enterprise wireless module integrated with 2x2 5G high power Radio module and 2x2 2.4G high power Radio 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 |
|-----------------------------|---------------------------|------|
| Supply Voltage | 24V~48 | V |
| Operating Temperature Range | -40 to +70 | °C |
| Storage Temperature Range | -45 to +105 | °C |
| Operating Humidity Range | 5 to +95 (non-condensing) | % |
| Storage Humidity Range | 0 to +90 (non-condensing) | % |

Hardware Specifications

| Symbol | Parameter |
|----------------------------------|---|
| CPU | IPQ4029/IPQ4019 |
| Antenna Connector | 2 x 5G MMCX connectors;2x2.4G MMCX |
| 10/100/1000Mbps Gigabit Ethernet | 2xRJ45 |
| SFP connector | 1xSFP fiber module connector (optional) |
| 3G/4G connector | 1xmini PCIe 3G/4G connector support with two sim card |
| USB connector | 1xUSB 3.0 connector |
| POE | 24V~48V passive POE |
| DC Jack | 24V~48V power supply |
| ROHS Compliance | YES |
| Dimension | 115mm x 105mm x 16mm |
| Max Power | 48.1V x 0.180A= 8.658W |
| Nor Flash | 2MB~32MB |
| Nand Flash | 128MB |
| DDR | 256MB~512MB |

Radio TX Specifications(5180MHz-5825MHz)

| Operating Mode | Data Rate | Power | | Tolerance |
|----------------|--------------------|---------|----------|-----------|
| | | 1 Chain | 2 Chains | |
| 802.11a | 6 Mbps | 27dBm | 30dbm | ±2dB |
| | 54 Mbps | 23dBm | 26dbm | ±2dB |
| 802.11n HT20 | MCS0, MCS8 | 26dBm | 29dbm | ±2dB |
| | MCS7, MCS15 | 22dBm | 25dbm | ±2dB |
| 802.11n HT40 | MCS0, MCS8 | 25dBm | 28dbm | ±2dB |
| | MCS7, MCS15 | 21dBm | 24dbm | ±2dB |
| 802.11ac | MCS0, MCS10, MCS20 | 25dBm | 28dbm | ±2dB |
| | MCS9, MCS19, MCS29 | 19dBm | 22dbm | ±2dB |

Radio RX Specifications(5180MHz-5825MHz)

| Operating Mode | Data Rate | Sensitivity |
|----------------|--------------------|-------------|
| 802.11a | 6 Mbps | -96dBm |
| | 54 Mbps | -78dBm |
| 802.11n HT20 | MCS0, MCS8 | -93dBm |
| | MCS7, MCS15 | -73dBm |
| 802.11n HT40 | MCS0, MCS8 | -90dBm |
| | MCS7, MCS15 | -70dBm |
| 802.11AC HT40 | MCS0, MCS10, MCS20 | -90dBm |
| | MCS9, MCS19, MCS29 | -67dBm |
| 802.11AC HT80 | MCS0, MCS10, MCS20 | -88dBm |
| | MCS9, MCS19, MCS29 | -62dBm |

Radio TX Specifications(2412MHz-2482MHz)

| Operating Mode | Data Rate | Power | | Tolerance |
|----------------|-------------|---------|----------|-----------|
| | | 1 Chain | 2 Chains | |
| 802.11g | 6 Mbps | 27dbm | 30dbm | ±2dB |
| | 54 Mbps | 25dbm | 28dbm | ±2dB |
| 802.11n HT20 | MCS0, MCS8 | 26dbm | 29dbm | ±2dB |
| | MCS7, MCS15 | 25dbm | 28dbm | ±2dB |
| 802.11n HT40 | MCS0, MCS8 | 26dbm | 29dbm | ±2dB |
| | MCS7, MCS15 | 24dbm | 27dbm | ±2dB |

Radio RX Specifications(2412MHz-2482MHz)

| Operating Mode | Data Rate | Sensitivity |
|----------------|-------------|-------------|
| 802.11g | 6 Mbps | -96dBm |
| | 54 Mbps | -78dBm |
| 802.11n HT20 | MCS0, MCS8 | -93dBm |
| | MCS7, MCS15 | -73dBm |
| 802.11n HT40 | MCS0, MCS8 | -90dBm |
| | MCS7, MCS15 | -70dBm |

Version

| Item | Information |
|----------|----------------|
| DR40X9-1 | CPU is IPQ4019 |
| DR40X9-2 | CPU is IPQ4029 |

LED & GPIO header

| Item | Information | Note |
|------|--------------|--------|
| 1 | PWR LED | |
| 2 | Eth1 LED | |
| 3 | Eth2 LED | |
| 4 | 2.4G LED | GPIO32 |
| 5 | 5G LED | GPIO50 |
| 6 | Strength LED | GPIO36 |
| 7 | Strength LED | GPIO39 |
| 8 | NC | |
| 9 | GND | |
| 10 | Uart1_TX | GPIO8 |
| 11 | Uart1_RX | GPIO9 |
| 12 | NC | |
| 13 | NC | |
| 14 | NC | |
| 15 | GND | |
| 16 | PWR | |

Serial Port

| Item | Information | Note |
|------|-------------|------|
| 1 | PWR | |
| 2 | Uart0 TX | |
| 3 | Uart0 RX | |
| 4 | GND | |

GPIO

| Item | Information | Note |
|--------|-------------------------------------|------|
| GPIO11 | Control for the switch of SIM cards | |