

MSR1200, MSR1K2SN0, MSR1K2SN0-US

High Performance Indoor Dual-radio Wireless Access Point/ Wireless Mesh Router



Features and Benefits

- Advanced 802.11n technology, greatly improving network bandwidth and coverage
- Uses proprietary Adaptive Wireless Routing (AWR) technology to form a reliable and scalable wireless network, offering automatic network optimization and restoration and supporting multiple gateways
- Uses proprietary fast roaming technology to realize seamless roaming
- Uses proprietary intelligent RF technology, offering automatic network forming, automatic channel optimization and power control to reduce interference and improve performance
- Uses proprietary wireless video optimization technology, greatly improving the quality of video over wireless
- Uses proprietary multi-hop and long-distance transmission optimization technology, greatly improving the network flexibility
- Centralized device and configuration management effectively increases network deployment and operation efficiency
- Supports both centralized forwarding and local forwarding
- Supports IPv6, meeting users' requirement for the next generation Internet
- Supports China WLAN security standard WAPI
- Able to establish highly reliable, secure, high performance, scalable, easy-to-deploy and easy-to-manage wireless broadband network with other wireless APs, mesh routers, multi-service wireless controllers and wireless network management systems

Technical Specification

- Radio:
 - Dual radio modules
 - Supports 802.11a/b/g/n>(*802.11n needs to purchase licenses)
 - Frequency Bands (country-specific restrictions apply):
2.400-2.483GHz, 4.90-4.99GHz, 5.15-5.35GHz, 5.47-5.725GHz, 5.725-5.85GHz
Note: The device, for sale in USA market, cannot be chosen country specification and the choice for working frequency range is fixed.
- Modulation:
 - DSSS (CCK, DQPSK, DBPSK)
 - OFDM (BPSK, QPSK, 16QAM, 64QAM)
- Association Rates (Mbps):
 - 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps
 - 802.11b: 1, 2, 5.5 and 11Mbps
 - 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
 - 802.11n 20MHz: 1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.); 2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)
 - 802.11n 40MHz: 1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.); 2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)
- Receiver sensitivity:
 - 802.11a: -95dBm@6Mbps, -95dBm@9Mbps, -94dBm@12Mbps, -92dBm@18Mbps, -88dBm@24Mbps, -85dBm@36Mbps, -81dBm@48Mbps, -79dBm@54Mbps
 - 802.11b: -95dBm@1Mbps, -95dBm@5.5Mbps, -91dBm@11Mbps
 - 802.11g: -95dBm@6Mbps, -95dBm@9Mbps, -94dBm@12Mbps, -93dBm@18Mbps, -90dBm@24Mbps, -86dBm@36Mbps, -82dBm@48Mbps, -80dBm@54Mbps
 - 802.11a/n(HT20): -95dBm@MCS0, -93dBm@MCS1, -90dBm@MCS2, -87dBm@MCS3, -84dBm@MCS4, -80dBm@MCS5, -79dBm@MCS6, -77dBm@MCS7
 - 802.11a/n(HT40): -91dBm@MCS0, -90dBm@MCS1, -87dBm@MCS2, -84dBm@MCS3, -82dBm@MCS4, -78dBm@MCS5, -76dBm@MCS6, -74dBm@MCS7
 - 802.11b/g/n(HT20): -95dBm@MCS0, -94dBm@MCS1, -92dBm@MCS2, -88dBm@MCS3, -85dBm@MCS4, -80dBm@MCS5, -79dBm@MCS6, -77dBm@MCS7
 - 802.11b/g/n(HT40): -90dBm@MCS0, -90dBm@MCS1, -89dBm@MCS2, -85dBm@MCS3, -82dBm@MCS4, -78dBm@MCS5, -77dBm@MCS6,

-74dBm@MCS7

Mesh Features

- Auto network forming
- Auto topology optimization
- Auto routing optimization
- Multi-hop backhaul
- Multiple gateways
- Adaptive Wireless Routing (AWR)
- Fast roaming
- Supports L2/L3 networking mode
- Supports centralized forwarding/local forwarding mode
- Supports centralized/non-centralized control mode

802.11n Basic Capability

- 2x2 MIMO, PHY data rate up to 300 Mbps
- 20 MHz and 40MHz frequency bands

Software Features

- Software image: Azalea AOS4.1 or above
- Roaming technology: Supports cross L2 and L3 roaming
- Load balance: based on the number of users or traffic
- Link check: supports uplink reachability check
- Wireless video optimization technology
- Wireless security management and control
- Long-distance transmission optimization
- Power control: supports manual and auto adjustment
- Channel selection: supports manual configuration and auto selection
- Routing technology: static route, OSPF
- Adaptive Wireless Routing (AWR)
- Supports IPv6
- Supports VLAN, STP

IPv4/IPv6

- IPv4 and IPv6 dual-stack
- DHCPv4/v6 Server

- DHCPv4/v6 Relay
- DHCPv4/v6 Client
- IPv6 ND
- Pingv4/v6, TraceRTv4/v6
- IPv4/IPv6 static routing

QoS

- Supports WMM
- Bandwidth control
- Azalea wireless video optimization technology
- Supports the mapping from wireless QoS to/from VLAN and IP QoS

Security

- 802.11i, WEP, WPA, WPA2
- TKIP (128bit), PSK, AES (128 bit), TLS and TTLS
- MAC address filter
- User isolation
- 802.1x, Web Portal authentication
- SSID hide
- Supports WAPI
- Rouge AP detect

Management

- SNMP v1/v2/v3c
- Telnet, FTP, HTTP, HTTPS
- NTP: NTP Client

Interfaces

- 10/100/1000M BASE-T Ethernet interface (RJ-45)
- Console port
- Antenna connector: 4 RP-SMA

Hardware Features

- Dimensions: 260 x 160 x 48 mm (W x L x H)
- Weight: 1.60 kg

- Environment:
 - Storage temperature: -25 to 85°C; Operating temperature: 0 to 50°C
 - Storage humidity: 5%~95% (non-condensing); Operating humidity: 10%~95% (non-condensing)
- Shock & Vibration: ETSI 300-19-2-4 Spect41.E class 4M3
- System memory: 128 MB DRAM; 16 MB flash
- Power supply:
 - PoE in: 802.3af
 - AC input (power adaptor): Input 100-245VAC, output 48V 38W
- LED indicators: Power, Ethernet port, Radio port
- Supports Reset button
- Power consumption: <10W
- Transport: ISTA 2A

Accessories

A variety of accessories are available for use with the Azalea routers. These include indoor antennas, outdoor antennas, feeders, RF cables, power splitters, arresters, waterproof accessories, Ethernet cables, power cables, console cables. Please see your local representative for additional details.

Caution

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 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.

The 5150-5250 MHz frequency band is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna Type: Reverse Omnidirectional Antenna, 50 Ohm

Gain of antenna: 5.0dBi max.

FCC MPE Reminding

To satisfy FCC RF exposure requirements, a separation distance of **26 cm** or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.