

## JetWave 2810/2820/2830-H-HR/M-HR



- Single/Dual/Triple RF configurable: 802.11a/b/g/n and 2.4G/5G
- Superb performance: 3 RF with 1 GbE up to 350Mbps
- Strong TX output power extends distance and coverage
- High RX sensitivity enhances receiving signal quality
- 2x2 MIMO doubles data rate
- Supports Super Roaming, Mesh, and Mobility mode (-M model)
- Supports high performance multiple hopping mode (-H model)
- Wireless QoS (WMM) for video precedence transmission
- Security by Multi-SSID, 802.1x, Access List and WEP/WPA/WPA2 Encryption
- High gain weatherproof fiberglass antenna by selection
- Gigabit PoE power input
- IP67 aluminum housing, -35~70°C outdoor solution

### Overview

The JetWave 2800 is an industrial IEEE 802.11a/b/g/n Wireless AP which offers a high performance and reliability wireless solution for both 2.4GHz and 5GHz RF bands. With the JetWave 2800 wireless access point, a network designer will easily achieve the integration of wired and wireless networks.

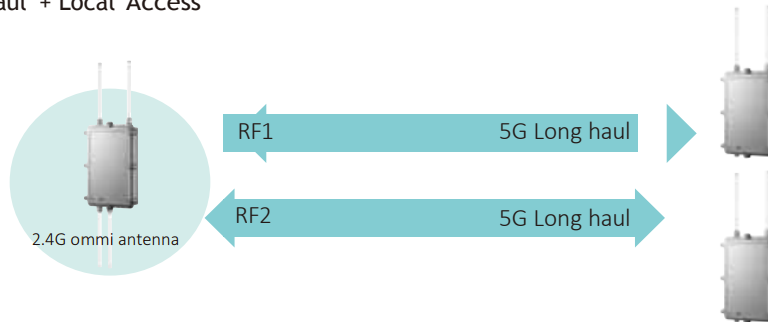
With the next generation 802.11n MIMO technology, the multi-radio (up to 3 independent RF modules) offer high data link rate up to 350Mbps, provide flexible wireless backbone deployment options, and provide the redundant wireless connections to increase the reliability of the entire wireless network. The JetWave 2800 can function as an AP, WDS, Station modes. The 2800-M supports wireless MESH network.

The wireless mesh network consists of multiple nodes that are able to communicate with each other for extending the wireless coverage, as well as share loading and backup if the node in the mesh network is blocked or failure. The advanced features include Korenix patented super roaming™ technology which seamlessly enabling the applications of high-speed mobility.

For the wireless security communication, 64/128/152-bit WEP, WPA/WPA2/802.11i, enable/disable SSID broadcasts, MAC access control, IEEE 802.11X/RADIUS are supported. The JetWave 2800 provides PoE power input, it can be powered by PSE switch/injector through Ethernet cable. The IP67 waterproof enclosure with wide -35~70°C operating temperature design allows users to install the device under harsh environmental condition.

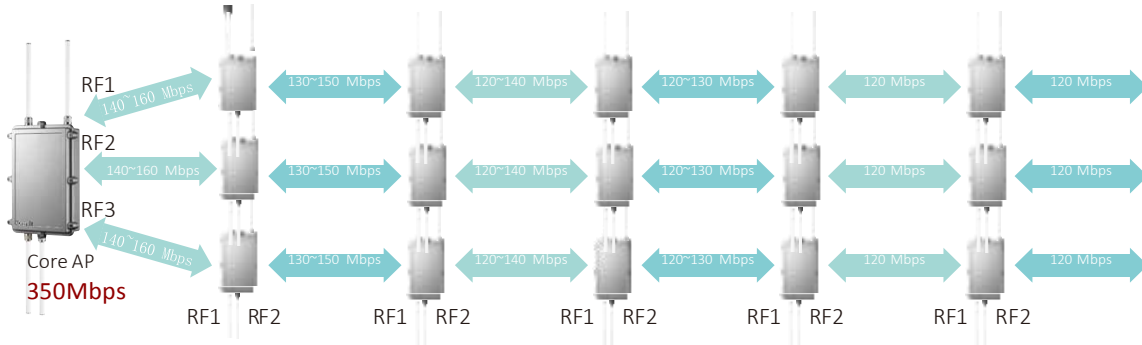
## Up to Triple RF & Dual Band RF for High Speed Backhaul

5G Long Backhaul + Local Access



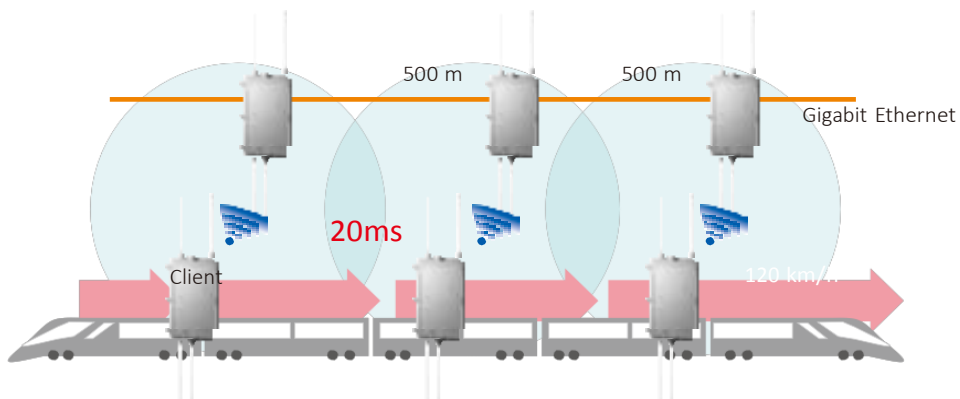
## High Capacity Multiple Hopping

Create three multiple-hopping paths with minimum 120Mbps throughput on the way and max 350 Mbps at core. (JetWave 2800-H-HR)



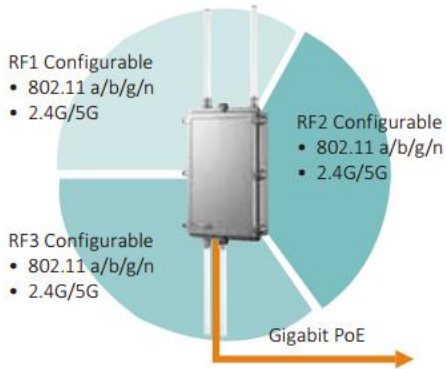
## 20ms Super Roaming

20 ms seamless handover, up to 120Mbps throughput for 120km/h high speed moving trains or vehicles. (JetWave 2800-M-HR)



## High Flexibility , Outstanding Performance

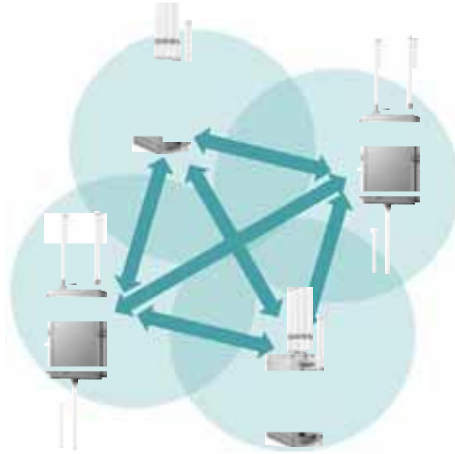
Three RF modules are configurable to meet various kinds of needs. Along with the gigabit Ethernet, it achieves max 350Mbps wireless to wired speed.



Performance		
Wireless To Wire	TCP	Up to 180Mbps for one radio to Ethernet
		Up to 320Mbps for multiple radios to Ethernet
	UDP	Up to 240Mbps for one radio to Ethernet
		Up to 350Mbps for multiple radios to Ethernet

## Self-configuring , Self Healing Wireless Mesh

In Mesh mode, JetWave 2800 series discovers each other and incorporates a self-configuring scalable and self-healing network, which overcomes the environmental or architectural constraints and offers reliable wireless communication in mission-critical industrial applications. (-M, Mesh version)



## High Gain , Durable Fiberglass Antenna

Compared to rubber antennas fiberglass antennas have higher GAIN to increase performance. Its water, dust and UV resistant characteristics make it an ideal solution for outdoor environments.



## Rugged for Extreme Environment

JetWave 2800 is protected by a strong IP67 aluminum housing, equipped with waterproof, anti-vibration connectors and durable fiberglass antennas, which survive harsh environments.



## Specification

### Technology

Standard:

Wireless: IEEE 802.11a/b/g/n for Wireless LAN

Ethernet: IEEE 802.11i Wireless Security

IEEE 802.3 for 10BaseT

IEEE 802.3u for 10/100Base-TX

IEEE 802.3ab for 1000BaseT

IEEE 802.3at for Power over Ethernet

IEEE 802.1D Spanning Tree Protocol

IEEE 802.1w for Rapid STP

IEEE 802.1Q for VLAN

Highest Data Rate:

IEEE 802.11b: 11Mbps

IEEE 802.11a,g: 54Mbps

IEEE 802.11n: 300Mbps @ 40MHz

### Performance

CPU: Atheros AR7161, 680MHz

System Memory: 16MB Flash

128MB SDRAM

Operating Frequency:

**5.8GHz Band:**

FCC : 5.725-5.850 GHz

CE : 5.470-5.600 GHz; 5.650-5.725 GHz

**2.4GHz Band:**

FCC : 2.412-2.462GHz

CE : 2.412-2.472GHz

(Programmable for different country regulations)

**RF Modulation:**

802.11a/n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

802.11b: DSS (CCK, DQPSK, DBPSK)

802.11g/n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

**RF Output Power (Max. of Avg.):**

802.11a: 17dBm@54M(5180MHz), 16dBm@54M(5825MHz),

21dBm@6M(all);

802.11b: 21dBm@11M(all), 20dBm@1M(2412MHz), 19dBm@

1M(2484MHz);

802.11g: 19dBm@54M(all), 23dBm@6M(all);

802.11a/n HT20: 21dBm@MCS0/8(5180MHz) 16dBm@

MCS7/15(5180MHz); 19dBm@MCS0/8(5825MHz)

14dBm@ MCS7/15(5825MHz);

802.11a/n HT40: 19dBm@MCS0/8(5190MHz), 18dBm @

MCS7/15(5795MHz) 13dBm@ MCS7/15(all);

802.11g/n HT20: 21dBm@MCS0/8(all), 17dBm@

MCS7/15(all);

802.11g/n HT40: 21dBm@MCS0/8(2422MHz) 20dBm@

MCS0/8(2462MHz) 16dBm@ MCS7/15(all);

**Sensitivity:**

802.11a -82dBm@6Mbps , 1Rx; -95/-91dBm@6Mbps , 2Rx;

-65dBm@54Mbps , 1Rx; -79/-75dBm@54Mbps , 2Rx

802.11b -82dBm@1Mbps , 1Rx; -95/-91dBm@1Mbps , 2Rx;

-65dBm@54Mbps , 1Rx; -91/-87dBm@11Mbps , 2Rx

802.11g -82dBm@6Mbps , 1Rx;-95/-91dBm@6Mbps , 2Rx;

-65dBm@54Mbps , 1Rx; -80/-76dBm@54Mbps , 2Rx

802.11a/n HT20: -82dBm@MCS0 , 1Rx; -95/-91dBm@MCS0 , 2Rx; -64dBm@MCS7 , 1Rx; -77/-73dBm@MCS7 , 2Rx

802.11a/n HT40: -79dBm@MCS0 , 1Rx; -91/-87dBm@MCS0 , 2Rx; -61dBm@MCS7 , 1Rx;-74/-70dBm@MCS7 , 2Rx

802.11g/n HT20: -82dBm@MCS0 , 1Rx; -95/-91dBm@MCS0 , 2Rx; -64dBm@MCS7 , 1Rx;-77/-73dBm@MCS7 , 2Rx

802.11g/n HT40: -79dBm@MCS0 , 1Rx; -90/-86dBm@MCS0 , 2Rx; -61dBm@MCS7 , 1Rx;-74/-71dBm@MCS7 , 2Rx

### Default Antenna Characteristics

**Gain:** Default Antenna 5G 7dBi, 2.4G 5dBi

**Frequency:** Available for 5G/2.4G band

**Direction:** Omni (Directional Antenna by option)

### Interface

**Ethernet Port:** 1 x 10/100/1000Base-T, Auto Negotiation

**Cables:** 2/4-pair UTP/STP Cat. 5 cable (100m)

### Management

**Management:** Web UI, Telnet, IP Setup, DHCP Server/Client ,

Discovery Utility , SNMP , Configuration Backup/Restore ,

Management VLAN

Status: System, Network, Radio, Connection Status

**Operating Mode:**

System: Bridge or Router mode

Wireless Hops: Access Point, CPE, WDS

Wireless MESH: MESH Gateway, MESH Point, MESH AP,

Mobility Station

**Radio:** Radio Bandwidth Control, Channel, Output Ratio, Antenna number, Distance in Meter

**WLAN Setup:** Virtual AP, Multiple SSID, Radio On/Off, SSID

Broadcast, VLAN ID, Client number, Wireless Isolation

**MESH:** MESH ID, MESH mode, Channel, Max. Hops, Self-Healing Time, Ethernet Shortcut, Sync. Interval, Security

**WMM:** WMM QoS

**Bandwidth Control:** 20 bandwidth control setup

**Router:** Static, LAN/WAN IP Setup

**STP:** STP, Rapid mode

**NTP:** Network Time Protocol

**Antenna Alignment:** Antenna Alignment tool, Ping, Link Test,

Site Survey, RSSI Calculator, First Fresnel Zone Calculator

**System Log:** System events log

### Security

**Multi-SSID (up to 16x ESSID for each radio)**

**Secured Access:** HTTPS, SSH, 802.1x, MAC Address ACL

**Security Encryption:** WEP 64/128/152 bits , WPA-PSK

(TKIP) , WPA2-PSK/EAP (IEEE 802.1x/RADIUS , TKIP and AES)

### Power Requirements

**Power Input (PoE):** 802.3at (48VDC)

**Power Consumption:**

JetWave 2810: max. 10W

JetWave 2820: max. 13W

JetWave 2830: max. 16W

(Maximum Radio Output)

## Specification

### Mechanical

Enclosure: IP67

External Antenna connector: N-Type

Mounting: Pole, Wall

Dimension: 262 mm (H) x 182 mm (W) x 55 mm (D)

Installation: Pole Mount (ADC-12 Aluminum alloy)

Weight: 2.0 kg with package

### Environmental

Operating Temperature: -35 -70 °C

Ambient Relative Humidity: 5% - 95% (non-condensing)

Storage Temperature: -40 - 85 °C

### Regulatory Approvals

EMI: FCC part 15 Class B&C&E CE EN301 893(5G) EN55022

EMS: EN55024, CE EN301 489-1/17

Warranty: 3 years

## Order Information

JetWave 2810-M-HR 802.11a/b/g/n Wireless Outdoor Mesh AP/Station

JetWave 2820-M-HR Dual RF 802.11a/b/g/n Wireless Outdoor Mesh AP/Station

JetWave 2830-M-HR Triple RF 802.11a/b/g/n Wireless Outdoor Mesh AP/Station

JetWave 2810-H-HR 802.11a/b/g/n Wireless Outdoor Hops AP

JetWave 2820-H-HR Dual RF 802.11a/b/g/n Wireless Outdoor Hops AP

JetWave 2830-H-HR Triple RF 802.11a/b/g/n Wireless Outdoor Hops

### AP Includes:

- JetWave 2800 Unit
- Antenna dual band 5G/2,4G 7dBi/5dBi
- Mounting Kit
- Grounding Wire with Screw
- Quick Installation Guide
- Document CD

## Optional Antenna

Model Name	Description
JWA-2.4G-9dBi-NF	JetWave Omni Directional Antenna, Wi-Fi 2.4GHz, 9dBi, N-Type Female
JWDA-2.4G-12dBi-NF	JetWave Directional Sector Antenna, Wi-Fi 2.4GHz, 12dBi, N-Type Female
JWA-2.4G-15dBi-NF	JetWave Omni Directional Antenna, Wi-Fi 2.4GHz, 15dBi, N-Type Female
JWA-5.8G-12dBi-NF	JetWave Omni Directional Antenna, Wi-Fi 5.8GHz, 12dBi, N-Type Female
JWDA-5.8G-23dBi-NF with Cable	JetWave Directional Panel Antenna, Wi-Fi 5.8GHz, 23dBi, N-Type Female, with N-Male to N-Male Cable
JWDA-5.8G-15dBi-DP-2xNF	JetWave Directional Panel Antenna, Wi-Fi 5.8GHz, 15dBi, Dual Polarization, 2 x N-Type Female
JWDA-5.8G-23dBi-DP-2xNF	JetWave Directional Panel Antenna, Wi-Fi 5.8GHz, 23dBi, Dual Polarization, 2 x N-Type Female
JWA-Arrestor-5803	0-6G Arrestor for N-Type Antenna