JetWave 2810/2820/2830-H/M

Outdoor Multi-RF 802.11 a/b/g/n Wireless AP(-H) / MESH AP(-M)

- 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 (2810/2820/2830-M)
- Supports high performance multiple hopping mode (2810/2820/2830-H)
- Wireless QoS (WMM) for video precedence transmission
- Securirty 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.

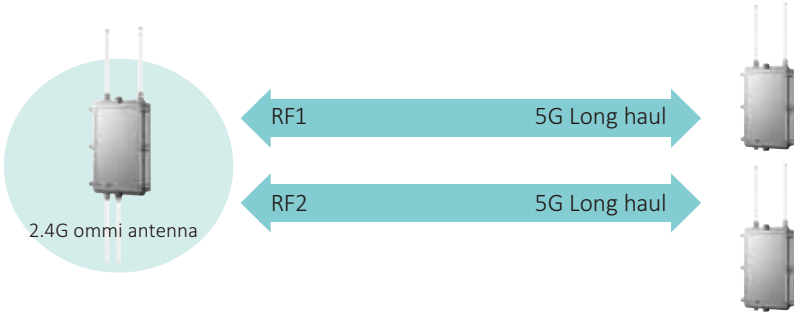
With the next generation 802.11n MIMO technology, the multi-radio (up to 3 independent RF modules) offer high data link rate up to 350Mbps, provide flexible wireless backbone deployment options, and provide the redundant wireless connections to increase the reliability of the entire wireless network.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

The wireless mesh nework consists of multiple modes 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 conditions.

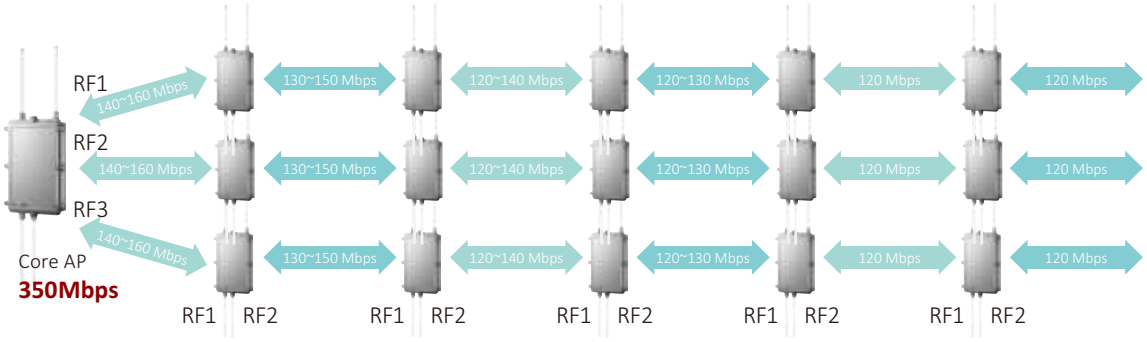
Up to Triple RF & Dual Band RF for High Speed Backhaul

5G Long Backhaul + Local Access



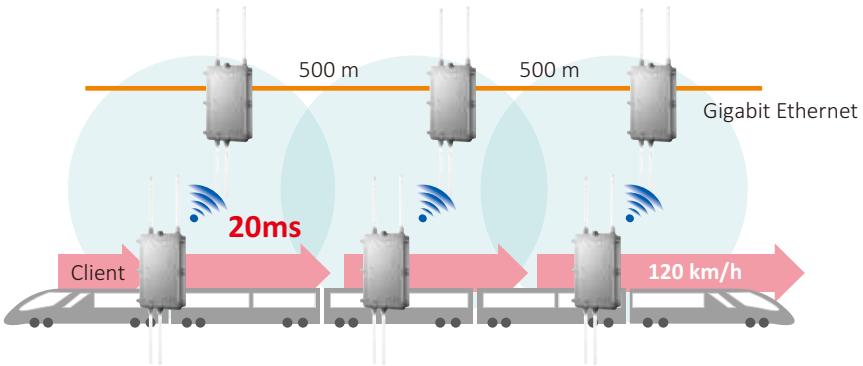
High Capacity Multiple Hopping

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



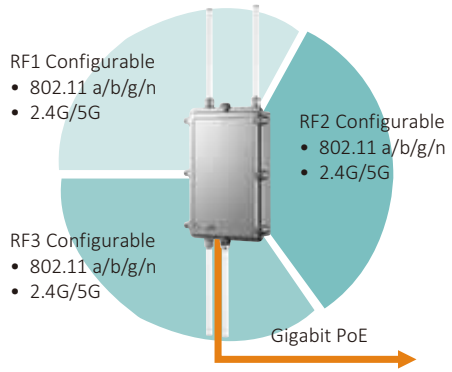
20ms Super Roaming

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



High Flexibility Outstanding Performance

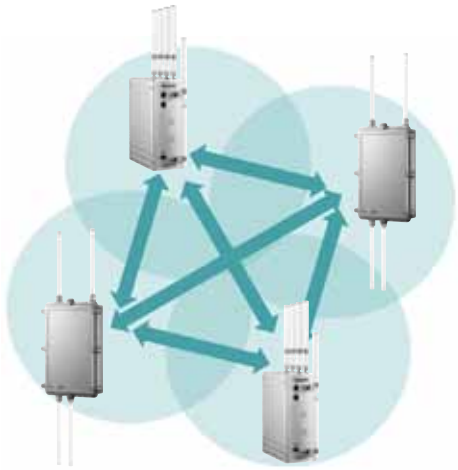
Three RF modules are configurable to meet various kinds of needs. Along with the gigabit Ethernet, it achieves max 350Mbps wireless to wired speed.



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 2800/2700 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 Environments

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

Industrial Intelligent NMS
Rackmount PoE Plus Switch
Industrial PoE Plus Switch
Industrial 12-24V PoE Switch
Industrial PoE Switch
Rackmount L3/L2 Switch
Gigabit Managed Switch
Managed Ethernet Switch
Entry-level Switch
Wireless Outdoor AP
Embedded PoE/Router Computer (LINUX)
Industrial Communication Computer (WIN/LINUX)
Ethernet/PoE/ Serial Board
Ethernet I/O Server
Media Converter
Serial Device Server
SFP Module
Din Rail Power Supply

JETWAVE

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, 64QAM)
802.11b: DSS (CCK, DQPSK, DBPSK)
802.11g/n: OFDM (BPSK, QPSK, 16-QAm, 64QAM)
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 Anntenna 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, Configuraiton 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, Secuirty
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 Caculator, 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: IP-67
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

Ordering Information

JetWave 2810-M 802.11a/b/g/n Wireless Outdoor Mesh AP/Station
JetWave 2820-M Dual RF 802.11a/b/g/n Wireless Outdoor Mesh AP/Station
JetWave 2830-M Triple RF 802.11a/b/g/n Wireless Outdoor Mesh AP/Station
JetWave 2810-H 802.11a/b/g/n Wireless Outdoor Hops AP
JetWave 2820-H Dual RF 802.11a/b/g/n Wireless Outdoor Hops AP
JetWave 2830-H 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-5G-23dBi-DP	Directional Panel Antenna Dual Polarization 23dBi for Jetwave 2800
JWA-5G-12dBi	Omni Antenna 12dBi for JetWave 2620 or JetWave 2800
JWA-2.4G-15dbi	Omni Antenna 15dBi for JetWave 2800 or 2420S
JWA-2.4G-9dbi	Omni Antenna 9dBi for Jetwave 2800 or 2620s
JWA-Arrestor-5803	0-6G Arrestor for N-Type Antenna