JetWave 2450

Outdoor High Performance IEEE 802.11b/g/n Wireless AP

RoHS

802.11 b/g/n | 3x↑ Rate | WMM

Built-in 8dBi Ant | External N-type Ant. | IGMP Snooping

- IEEE 802.11n wireless outdoor solution, backward compatible with 802.11b/g
- 3 times higher throughput than 802.11b/g solution, up to 150Mbps net data rate
- High performance and low maintaining cost for video surveillance network
- One model with both Embedded 8dbi Directional Antenna and N-Type Socket
- Up to 5KM Wireless coverage
- Wireless QoS (WMM) for video precedence transmission
- Supports Base Station, CPE, Point to Point and Point to Multiple Point connectivity
- Supports Spanning Tree Protocol, IGMP Snooping, SNMPv3, NTP, DHCP Server, Router mode
- Advanced security system by WEP, WPA, WPA2 and MAC address filter
- Built-in 12VDC PoE, to be powered through Ethernet cable
- -20~70℃ operating temperature

Overview

The JetWave 2450 is a 2.4GHz IEEE 802.1n Wireless Outdoor Access Point compliant with the 802.11n standard and backward compatible with 802.11b/g standard. The 802.11n standard features 3 times better data rate than 802.11b/g standard, targeting to reach 60~80Mbps outstanding performance. The cost-effective JetWave 2450 with high throughput is the best wireless outdoor solution, especially for the video surveillance application.

JetWave 2450 integrates one 8dBi flat panel directional antenna and additional N-Type socket for optional antenna. With one model, you can freely use the embedded antenna for long distance line-of-sight transmission or attach high gain and wide directional antenna to extend the coverage in length and width depending on environmental needs. You can also save the storage, choose optional antenna only when embedded one is not suitable for use.

The JetWave 2450 delivers high output power and high receiver sensitivity, which can extend range and provide from 1 to 5KM wireless coverage. The high throughput 802.11n wireless transmission reduces the roaming between APs and provides stable wireless connection. The IP55 waterproof standard, -20~70°C operating temperature allows users to install the device under harsh environmental conditions. The 12VDC power input can be delivered through the Ethernet cable by the attached injector.

The advanced features include Spanning Tree Protocol to avoid the loop storm, QoS (WMM) to prioritize classes for different applications, IGMP snooping for multicast stream filtering, secure system by WEP, WPA, WPA2 and MAC address filtering and SNMPv3 management. Combining superior wireless technology and advanced features, the JetWave 2450 Wireless Outdoor Access Point is a reliable, high-performance solution for the most demanding wireless networking environments.

JETWAVE

Specification

Technology

Standard:
IEEE 802.11b/g and 802.11n draft for Wireless LAN
IEEE 802.11i Wireless Security
IEEE 802.3u for 10/100Base-TX
IEEE802.1D Spanning Tree Protocol

Performance

CPU: Atheros AR7240
System Memory: 8MB Flash, 32MB DDR
Operating Frequency:
IEEE 802.11b/gn HT20 ISM Band
*FCC: 2.412 GHz ~ 2.462 GHz (CH1 ~ CH11)
*ETSI: 2.412 GHz ~ 2.472 GHz (CH1 ~ CH13)
IEEE 802.11g/n HT40 ISM Band
*FCC: 2.422GHz ~ 2.452 GHz (CH3 ~ CH9)
*ETSI: 2.422 GHz ~ 2.462 GHz (CH3 ~ CH11)
RF Modulation:
Transmission/Emission Type: Direct Sequence Spread Spectrum (DSSS)
Data modulation type: OFDM/BPSK/QPSK/CCK/DQPSK/DBPSK
RF Output Power:
FCC: (Average Output Power @ 25°C)
802.11b: 26 ± 1.5dBm
802.11g: 6-24Mbps: 26 ± 1.5dBm,
36-48Mbps: 25 ± 1.5dBm, 54Mbps: 24 ± 1.5dBm
802.11n:
HT20: 22/23/24/25/26 ± 1.5dBm (MCS7/6/5/4/0-3)
HT40: 21/22/23/25/26 ± 1.5dBm (MCS7/6/5/4/0-3)
PS: FCC band edge exclusive
ETSI(CE):
802.11b: Max. 10.5dBm
802.11g: Max. 10.5dBm
802.11n:
Max. 10.5dBm@HT20
Max. 10.5dBm@HT40
Sensitivity:
IEEE 802.11b: 1Mbps ≦ -93dBm, 11Mbps ≦ -88dBm
IEEE 802.11g: 6Mbps ≦ -88dBm, 54Mbps ≦ -73dBm
IEEE 802.11n
*HT 20 MCS0 ≦ -88dBm, MCS7 ≦ -70dBm
*HT 40 MCS0 ≦ -84dBm, MCS7 ≦ -67dBm
Data Rate:
11b: 11M, 5.5M, 2M, 1Mbps
11g: 54M, 48M, 36M, 24M, 18M, 12M, 9M, 6Mbps
11n draft:
6M, 6.5M, 13M, 13.5M, 19.5M, 26M, 27M, 39M, 40.5M, 53M, 54M, 58.5M, 65M, 78M, 81M, 104M, 108M, 117M, 121.5M, 130M, 135Mbps

Default Antenna Characteristics

Gain: 8dBi
Direction: Directional Antenna
HPBW (Horizontal): 10 Deg.
HPBW (Vertical): 10 Deg.
Reserve N-Type Connector, switchable by SW

Interface

Ethernet Port: 1 x 10/100Base-T, Auto Negotiation
Reset: One Reset button to restore factory default
Cables: 2/4-pair UTP/STP Cat. 5 cable (50m)

Management

Management: Web UI, SNMP, DHCP Client, Configuration backup/restore, JetView Protocol
Statistics: Wireless and Ethernet Traffic statistics
Firmware upgrade: Web, Windows management tool, TFTP, firmware backup
Operating Mode: Base Station, CPE, Peer to Peer, Peer to Multiple Peer
AP Mode: SSID configurable, Hide SSID, Channel Selection, Limitation of Client connection, Wireless client isolation, Tx Flow Control
CPE Mode: SSID configurable, CPU with multi-client support, TX Flow Control by AP
Output Power Control: Full, 50%, 25%, 12.5%, Min
Data Rate Selection: Best or adjust targe data rate
Site Survey: Easy tool to discover available AP
Link Test: Self-Wireless Connection test
Secured Access: 802.1x, Radius Server, Access Control by Trusted Wireless station, manually add station, HTTPS(*), SSH(*)
Security Encryption: WEP 64/128/152 bits, WPA-PSK (TKIP), WPA2-PSK(AES), Mixed WPA/WPA2
STP: Spanning Tree Protocol with Fast Forwarding
NTP: Network Time Management
IGMP Snooping: Filter the multicast stream
System Log: Log occurred events
Port Mode: Bridge or router mode
DHCP Server: Assign IP address to connected clients
LED:
Power: Green ON/OFF, Amber Blinking – Device initial
LAN: Green ON/OFF, Blinking – Sending/Receiving data
WLAN (AP mode):
Green Off – WLAN Disabled,
Green Blinking – WLAN Activity
WLAN (CPE mode):
Green Blinking – Good Quality
Yellow Blinking – Marginally Acceptable Quality
Red Blinking – Bad Quality

Power Requirements

Power: Power over Ethernet Cable, Up to 50 meter
Power Injector:
Input: 100-240VAC, 0.6A 50-60Hz
Output: 12V, 1A
Power Consumption: Max. 12V, 900mA, depend on user volume

Mechanical

Enclosure: IP55 Plastic
External Antenna connector: Reverse N-Type
Dimension: 165mm (H) x 60 mm (W) x 34 mm (D)
Installation: Pole Mount (ADC-12 Aluminum alloy)
Weight: 1 kg with package

Environmental
Operating Temperature: -20 ~70°C
Operating Humidity: 10% ~ 95% (operating)
Storage Temperature: -30 ~ 80°C

Regulatory Approvals
EMI: FCC part 15 Subpart B&C, CE EN300 328
EMS: CE EN301 489-1/17
Warranty: 3 years

Ordering Information

JetWave 2450-FCC Outdoor High Performance IEEE 802.11b/g/n Wireless AP, FCC Adapter

JetWave 2450-EU Outdoor High Performance IEEE 802.11b/g/n Wireless AP, CE Adapter

Includes:

- JetWave Unit
- Mounting Kit
- PoE Injector & Power cord
- Grounding Wire with Screw
- Quick Installation Guide
- Document CD

Notice: The is changeable by UI choose the country or yours.

Optional Antenna

Model Name	Description	Apply to
JWA-2.4G-15dBi	Omni-Directional Antenna 15dBi	Antenna Unit, Mounting Kit, 1m RF Cable
JWA-2.4G-9dBi	Omni-Directional Antenna 8dBi	Antenna Unit, Mounting Kit, 1m RF Cable
JWA-2.4G-5dBi	Omni-Directional Antenna 5dBi	Antenna Unit, Mounting Kit
JWA-2.4G-12dBi	Sector-Directional Antenna 12dBi	Antenna Unit, Mounting Kit, 1m RF Cable