



Major Wireless indoor & outdoor Solution Figure & Products Specification

IEEE 802 -- 500mW Rugged AP/Bridge IA-12



High Power with Wireless Integrated Directional Inside Antenna



The IEEE 802 Rugged AP IA-12 is designed for **indoor / outdoor** deployments in **hotels, community area, factory, apartment buildings, outdoor, or industrial applications**. It is the wireless system with an adjustable **500 mW** radio output, and an entirely enclosed 12 dBi Flat Panel Antenna. **Total output is up to 39 dBi**. This unit is packaged in the same compact form factor as the AP, available with a **side mount**, perfect for mounting at the end of hallways, above ceilings, or **on the outside of a building**. The Rugged AP IA-12 can act as an Access outside area, Bridge, or an AP client. **Pricing for the AP IA-12 is more cost effective than ever before, dramatically lowering your infrastructure costs, and increasing your Return on Investment.**

Hardware Features

The Rugged AP IA-12 comes with a versatile integrated flat-panel 12 dBi **120 degree directional antenna** and a multi-position secure bracket. Your backbone Ethernet cable connects to the AP through a moisture-proof gland and the entire unit is sealed.

The AP IA-12 supports **IEEE 802.3af 48Volt Power over Ethernet**. It uses *Transmit Power control*, enabling it to be used in a wide variety of special applications where the wireless output needs to be controlled for the environment.

User Authentication

Secure authentication based on industry standards

The AP IA-12 Advanced Version incorporates 802.x/Radius-based authentication features that interoperate with a back-office Radius server to provide authentication of each user. Radius-based authentication means a AP IA-12 is compatible with a wide variety of shared usage and public access applications. In addition, the AP IA-12 can authenticate users based on their MAC address if desired.



Security and Management

Highly secure and manageable

In addition to Radius-based and MAC-based authentication in the Advanced Version, the AP IA-12 supports the 64-bit and 128-bit Wireless Encryption Protocol, WPA/WPA2, and disabling of SSIDs.

The AP IA-12 is easy for administrators to setup through Web-based management, or our Windows-based network manager. Additionally, management can be done via SNMP V 1, V 2, 802.x and 802.1d MIBs. It is UPnP-enabled and supports remote firmware upgrades.

Extended Network Range

Repeater functionality

The AP IA-12 is able to operate as a repeater in addition to an access point, allowing it to communicate with other compatible AP/routers to form a Wireless Distribution System. This greatly extends the reach of the wireless network. With its built-in antenna and powerful 500 mW radio, **a range of 10 miles is possible for the long distance.** Aligning directional antennas is easy using built-in antenna alignment assistance. Up to six WDS links can be established from a single unit.

AP client mode

Operators can extend the network even further by configuring the Rugged AP IA-12 as a client device, compatible with any 802.n compliant Access Point. AP client mode includes RSSI for link and antenna position monitoring as well as built-in site survey capability.

Compatibility

The AP IA-12 is fully compatible with the FCC standard, ensures the usability with any compatible wireless equipped device which is the fastest growing standard for Internet access and is supported on a vast number of PCs today.

Technical Specifications

Access Point Specification

Wireless

- IEEE 802.n
- Frequency band: 2 GHz above – 5.8 GHz
- Modulation Techniques: DSSS (CCK, DQPSK, DBPSK)
- Media Access Protocol: CSMA/CA with ACK
- Data Rates: OFDM@54Mbps, CCK@11/5.5Mbps, QPSK@2Mbps and DBSK@1Mbps
- AP Range:2000m, 6600ft line of sight (client dependent)
- WDS Range: 15,000m, 49,000ft line of sight
- 500 mWatt transmit power with Transmit power control
- 87 dBm - 81 dBm receive sensitivity b mode
- 86 dBm – 68 dBm receive sensitivity g mode
- Configurable DTIM and Beacon Interval

Networking

- DHCP Client and Server
- 6 WDS repeater links
- AP client mode
- 802.n Bridging functionality
- UPnP

Security

- MAC based access control
- 64/128 bit RC4 WEP
- WPA WPA2

Management

- Web-based management
- Antenna alignment and RSSI monitoring
- Web-based or TFTP firmware upgrade
- System logging (local or remote)
- SNMP v1/v2, MIB II with traps, 802.1x, 802.1d MIBs
- Telnet

Interfaces

- 1 10/100M Ethernet LAN port

Compatibility

- Works with any certified interfaces

Operating Environment

- Operating Temperature: -20 to 70 C, -4 to 158 F
- Storage Temperature: -20 to 70 C, -4 to 158 F
- Humidity: Max. 95% non-condensing

Electrical

- 802.3af 48 Volt Power Over Ethernet

Regulatory Approvals

- FCC part 15 Class B, VCCI Class B, CE Mark, UL

Advanced Features

- 802.x Network Access Control (EAP-MD5, EAP-TLS)
- Wireless Protected Access (WPA-PSK)
- AP load balancing
- Wireless Client Isolation
- Association Control

Antenna Specification

Type: Panel antenna

Linear: V or H

Frequency: 2483.5-5800 MHz

Impedance: 50 ohm

Antenna Pattern: 120 Degrees H Plane

VSWR: < (=)2.0

Gain: 12 dBi

Power handling: 10 Watt

Size: 166*140*30mm, 6.5*5.5*1.2in

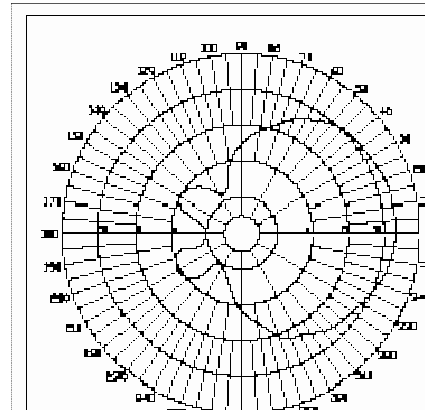
Weight: 400g, 11.1oz(include swivel base).

Operation temp: -30 to 60 C, -22 to 140 F

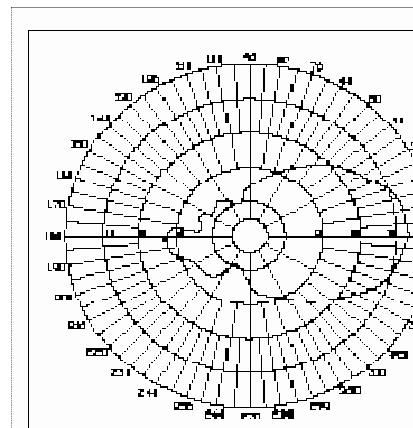
Material:

- Cover & Base: Injection ABS
- Mount: Stainless steel, Electro-plating

H-Plane



E-Plane



Warranty

- One year parts and labor with the normal conditional use