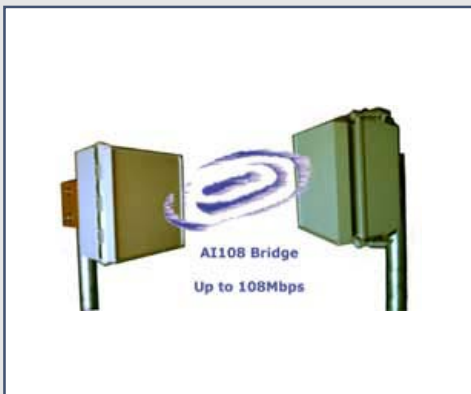


Product Highlights

The AI108 wireless bridge delivers a comprehensive range of product features, ensuring fast, secure and reliable networking services, including...

- Indoor-outdoor architecture for ease of installation, configuration, and management.
- Data rates of up to 108 Mbps.
- Range of up to 1 mile (1.6km).
- Compatibility with any standard Ethernet switch and router.
- LED diagnostics for indoor-to-outdoor unit connectivity and power monitoring.
- Web-based antenna alignment diagnostics tool, which simplifies antenna alignment and installation while minimizing maintenance costs.
- IEEE 802.11a hardware, IEEE 802.3af (draft) PoE, and IEEE 802.3 compliance.
- SecureRF radio link encryption using proprietary algorithm for secure point-to-point communication.
- Built-in lightning arrestor ensures network and power protection.



Integrated Architecture

The indoor-outdoor architecture of the AI108 provides maximum range and capacity, delivering outstanding performance in a simple, cost-effective design. Utilizing OFDM technology in the 5GHz UNII (5.25-5.35GHz) band, the AI108 operates at a range of up to 1 mile and at speeds up to 108Mbps.

Performance

Ideally suited for bandwidth-hungry applications that require fast and consistent building-to-building connectivity, the AI108 provides optimal delivery of broadband applications in fixed wireless environments.

Design Simplicity

The modular design of the AI108 combines weatherized outdoor antennas, radio enclosures, and low cost cabling, with indoor IEEE compliant network and remote-power (PoE), enabling seamless integration into existing Ethernet networks, while simplifying installation, diagnostics, and management.

Radio Security and Lightning Protection

Radio link security is provided by the use of AIRAYA's exclusive SecureRF radio link encryption technology, ensuring the prevention of hacking, data theft and unauthorized intrusions.

Lightening and power surge protection are built-in to the indoor unit, protecting valuable network assets attached to your AI108 wireless bridge.

Ordering Information

Featuring a modular architecture, the AI108 is available as a complete link and is orderable by Model #. Please specify Model # according to the table below.

AI Bridge Series - Model #	AI108-1-050	AI108-1-150	AI108-1-300	AI108-2-050	AI108-2-150	AI108-2-300
5.25-5.35 GHz Radio Bridge	X	X	X	X	X	X
Antenna	18.4dBi	18.4dBi	18.4dBi	No Antenna	No Antenna	No Antenna
Antenna Connector	Integrated	Integrated	Integrated	N-Type Male	N-Type Male	N-Type Male
Lightening Arrestor (built-in)	X	X	X	X	X	X
Power/Signal Cable Included	X	X	X	X	X	X
Cable Length: 50 ft (15.24m)	X			X		
150 ft (45.72m)		X			X	
300 ft (91.44m)			X			X



AI108 Specifications

(5.25-5.35GHz - 108Mbps)

Radio			
Frequency Range	5.25-5.35 GHz GHz license-exempt (FCC, ETSI)		
Radio Type	Orthogonal Frequency Division Multiplexing (OFDM)		
Standards Compliance	IEEE 802.11a based with proprietary extensions		
Channelization	Single channel (center frequency 5.29 GHz)		
Output Power	18, 19, 20 (dBm)		
Sensitivity	Data Rate	Sensitivity (dBm)	Modulation
	108Mbps	-71	16 QAM
	48Mbps	-75	16 QAM
	36Mbps	-78	QPSK
	24Mbps	-80	QPSK
	18Mbps	-81	BPSK
	12Mbps	-82	BPSK
Integrated Antenna Type	Flat Panel Antenna, 18.4dBi, +/-20° elevation adjustment		

Range	
Europe/ETSI	Up to 1 mile (1.6km) with built-in antenna
FCC	Up to 1 mile (1.6km) with built-in antenna

Security	
Authentication and Privacy	SecureRF radio data encryption and WEP (152, 128, 64-bit)

Configuration and Management	
Configuration Utility	Built-in webserver
Software Upgrades	Http download
Indoor LED Status Indicators (4)	Indoor to Outdoor Link Detection (Green), Fuse Blown (Yellow), AC Power (Green), Power Forwarding (Green)

Outdoor to Indoor Unit Communications	
Cable Type	Cat-5e 4 x 2 x 24AWG Double Jacketed (Weatherized)
Maximum Distance	328 ft (100m) between indoor and outdoor units

Interfaces	
RF (antenna) connector in the outdoor unit	Integrated or N-Type female input
Baseband (Indoor to Outdoor Units)	Outdoor units: Shielded RJ-45 with weatherized sealed cap. Indoor units: Shielded RJ-45
Ethernet	Indoor units: 10BaseT, (RJ-45) with 4 embedded LEDs

Electrical	
Power Consumption	100-220V Auto-ranging (50Hz-60Hz)

Mechanical Dimensions		
Outdoor Unit	10 x 8 x 6 in	25.4 x 20.3 x 15.2 cm
Outdoor Unit with Integrated Antenna	10 x 8 x 7 in	25.4 x 20.3 x 17.8 cm
Indoor Unit	6 x 3 x 1 in	15.2 x 7.6 x 2.5 cm

Environmental	
Operating Temperature	Indoor unit: 0°C to 40°C
	Outdoor unit: 0°C to 50°C
Operating Humidity	5% to 95% non-condensing. Outdoor units are weather protected

Compliance and Certifications	
EMC	EN 300-385, FCC Part 15
Safety	EN 60950, UL 1950
Environmental	ETS 300 019, Bellcore GR-63-CORE
Radio	FCC 15.407 (UNII), ETSI ETS 300 836

About AIRAYA

AIRAYA, Corp. was formed in 2001 by a team of wireless industry veterans with more than twenty years of combined experience in the field. The company's mission is to provide innovative wireless networking solutions at value-based prices. Our portfolio includes 802.11a based access points and client adapters, as well as building-to-building wireless communications products.

AIRAYA's extensive engineering capabilities, sales, marketing, and support expertise, coupled with our customer-focused approach, make us an easy partner to do business with. As a company, we strive to successfully unite leading-edge technology, seamless distribution, and a total commitment to customer service.



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