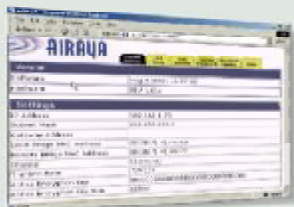


Product Highlights

The WirelessGRID series of bridges deliver a comprehensive range of product features, ensuring fast, secure and reliable networking services, including...

- ◆ **Integrated architecture** for ease of installation, configuration, and management.
- ◆ **Data rates** of 108 to 1 Mbps using AIRAYA's adaptive intelligence (AI) engine, proprietary bridging protocols, and 40, 20, 10, 5 MHz wide channels.
- ◆ **Range** up to 30 miles (50 km) with external antenna options and radio output power settings (local regulations apply).
- ◆ **Compatibility** with all standard 100Mbps Ethernet switches and routers, 802.1q, 802.1p, VPN, and VoIP.
- ◆ **LED diagnostics** for indoor-to-outdoor unit connectivity and power monitoring.
- ◆ **Real-time antenna alignment tool**, which simplifies antenna alignment, optimizes link quality, and maximizes system throughput.
- ◆ **Remote power** for installing WirelessGRID bridges up to 328 feet away from your switch/router using power over Ethernet.
- ◆ **SecureRF** bridge authentication and AES-128/WEP data encryption for secure point-to-point, point-to-multipoint and repeater communication.
- ◆ **Real-time monitoring of WirelessGRID** displays signal strength, connected stations, bridge stats, operating mode, data rate, channels...



Integrated Architecture

The indoor-outdoor architecture of WirelessGRID outdoor bridges provide ease of installation, maximum range and capacity, delivering outstanding performance in a fully integrated design. Utilizing OFDM technology in the 5GHz (4.940-5.850 GHz) frequency range, WirelessGRID bridges operate at a range of up to 30 miles* and at speeds up to 108 Mbps.

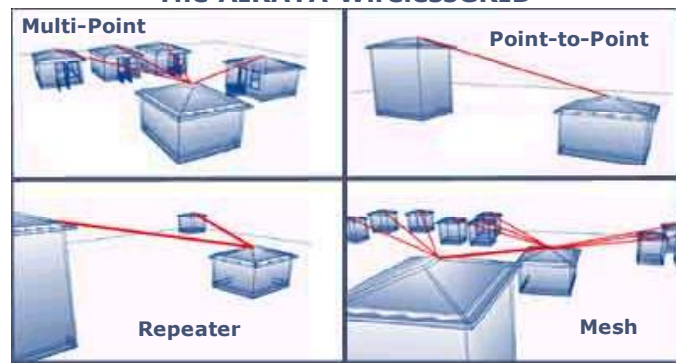
Optimized Performance

Ideally suited for bandwidth-hungry applications that require fast, affordable, reliable, and secure multipoint and point-to-point connectivity, the fully-integrated outdoor series of WirelessGRID bridges provides optimal delivery of IP voice, data, and video services. With AIRAYA's exclusive 5, 10, 20 and 40 MHz wide channel plan, more than 170 available channels can be used to meet your capacity, speed, scalability, and user needs, while optimizing frequency usage and complying with local regulations.

Configuration Flexibility

Built-in support for point to multipoint (up to 32 subscribers per base station radio), point to point, and repeating modes means you can use one product family to support many different types of applications. Whether you are connecting two buildings, a campus, or a city-wide network, the WirelessGRID architecture provides you with the flexibility to deploy fast, affordable and robust outdoor fixed wireless bridge solutions.

The AIRAYA WirelessGRID



Advanced Security

WirelessGRID security is provided with WirelessGRID bridge authentication and AES-128/WEP-152 data encryption options, ensuring the prevention of hacking, data theft and unauthorized intrusions.

Integrated Antenna Alignment and Link Monitoring Tool

WirelessGRID antenna alignment and link optimization is easy using this real-time tool. During setup, simply run the tool between any two points and the signal strength in dB is streamed across your computer screen, allowing you to maximize signal quality and improve the performance and reliability of your wireless links. While in operation, you can also monitor signal strength between local and remote locations in real time to check for changes in the environment and troubleshoot technical problems.

| Radio | | | |
|---|---|-------------------|--------------------------|
| Multiple Frequency Bands Supported. 40, 20, 10, 5 MHz wide channel selections (Local regulations apply) | 4.940-4.990 GHz Public Safety Band (FCC Part 70, licensed Intl.) Non-overlapping Channels: 8 x 5 MHz, 4 x 10 MHz, 2 x 20 MHz, 1 x 40 MHz | | |
| | 5.25-5.35 GHz license-exempt (FCC, Industry Canada, Mexico) Non-overlapping Channels: 19 x 5 MHz, 9 x 10 MHz, 4 x 20 MHz, 2 x 40 MHz | | |
| | 5.47-5.72 GHz license-exempt (ETSI, FCC, ITU) with TPC and DFS Non-overlapping Channels: 44 x 5 MHz, 22 x 10 MHz, 11 x 20 MHz, 5 x 40 MHz | | |
| | 5.725-5.850 GHz licence exempt UNII & ISM Bands (ETSI, FCC, MII) Non-overlapping Channels: ISM, UNII: 25 x 5 MHz, 12 x 10 MHz, 5 x 20 MHz, 2 x 40 MHz | | |
| Radio Type | Orthogonal Frequency Division Multiplexing (OFDM) | | |
| Standards Compliance | 802.3, 802.11i, 802.11a hardware with proprietary bridging extensions | | |
| Total System EIRP and radio output power | Radio output power: Max: 21dBm (Set to local regulatory requirements to comply with transmit, conducted and EIRP power limits) | | |
| Radio Receiver Sensitivity | Data Rate | Sensitivity (dBm) | Modulation |
| | 108 to 1 Mbps | -73 to -91 | 64QAM, 16QAM, QPSK, BPSK |
| WirelessGRID Operating Modes | Point to Multipoint, Point to Point, Repeater (See Ordering Guide) | | |
| Antenna Types (5 GHz) | AI108-4958-BSU, AI108-4958-ON2 - Order a Sector, Omni, GRID, or Panel AI108-4958-SU and -1: Flat Panel Directional Antenna AI108-4958-0-xxx: 23 dBi integrated or 28 dBi external directional antenna | | |

Ordering Information by Model

| | |
|------------------|---|
| AI108-4958-BSU | Outdoor base station |
| AI108-4958-ON2 | Outdoor base station/repeater |
| AI108-4958-OSU | Outdoor subscriber unit |
| AI108-4958-0-xxx | Outdoor backhaul (xxx specifies cable length between indoor and outdoor units. -50, 150, 300) |

About AIRAYA

AIRAYA was formed in November, 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 fast and affordable wireless bridges for the broadband fixed wireless marketplace. Our portfolio includes a complete line of high-performance indoor and outdoor 5GHz wireless bridges and accessories for connecting IP networks at distances up to 30 miles.

Contact AIRAYA today and find out why AIRAYA fixed wireless bridges are the preferred choice of customers in more than 30 countries worldwide.



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| Range | |
|---|---|
| FCC & Industry Canada (Local regulations apply) | Up to 7.5 miles (12 km) with built-in 23dBi panel antennas Up to 30 miles (48.27 km) with max radio output power and optional external 34.5 dBi antennas |
| International Version (Local regulations apply) | Up to 30 miles (48.27 km) - N-type version (AI108-4958-ON-xxx) with max radio output power and optional external 34.5 dBi antennas |

| Security | |
|-------------------------------|--|
| Authentication and Encryption | SecureRF Architecture - Multi-layer link authentication. AES-128/WEP 152-bit data encryption options, support for radius authentication. |

| Configuration and Management | |
|------------------------------|---|
| Configuration Utility | Built-in webserver, Telnet |
| Software Upgrades | FTP Download |
| Antenna Alignment Tools | Built-in RSSI (Signal Strength), Link Optimization/Throughput Utility |
| Indoor LED Status Indicator | Indoor Remote Power Indicator |
| Real-Time Link Monitoring | Secure Management Interface - Real time signal strength, authentication data, system uptime, data rate, channel selection |

| Outdoor to Indoor Unit Communications | |
|---------------------------------------|---|
| Cable Type | Cat-5e 4 x 2 x 24AWG gel-filled (UV protected, weatherized) |
| Maximum Distance | 328 ft (100m) between network connection and outdoor units |

| Interfaces | |
|--|---|
| RF (antenna) connector in the outdoor unit | Integrated or N-Type female |
| Baseband (Indoor to Outdoor Units) | Outdoor units: RJ-45 Indoor units: RJ-45 |
| Ethernet | Indoor units: 100/10Mbps Autosensing Ethernet (RJ-45) |

| Electrical | |
|---------------------|---|
| Remote Power System | Input: 100-240V , 0.5A Auto-ranging (50Hz-60Hz) Output: 48V, 0.3 A Max for Remote Power System (PoE) |

| Mechanical Dimensions | | |
|--|--|-----------------------|
| AI108-4958-BSU/ON OD Unit | 10 x 8 x 6 in | 25.4 x 20.3 x 15.2 cm |
| AI108-4958-0 Outdoor Unit with integrated 23 dBi Antenna | 11 x 11 x 7 in | 26 x 26 x 17.8 cm |
| AI108-4958-BSU Antenna | 22 x 3 x 3 in | 52 x 7.6 x 7.6 cm |
| Indoor Unit | 6 x 3 x 1 in | 15.2 x 7.6 x 2.5 cm |
| Outdoor Unit Mounting | Includes mast mounts and clamp kits for 1" (26mm) diameter thru 4.5" (115mm) diameter masts. | |

| Environmental | |
|-----------------------|---|
| Operating Temperature | Indoor unit: 0°C to 40°C |
| | Outdoor unit: -20°C to 55°C |
| Operating Humidity | 5% to 95% non-condensing. Outdoor units are weather protected |

| Compliance and Certification | |
|------------------------------|--|
| EMC | FCC Part 15, Industry Canada RSS-210, Mexico, ETSI |
| Safety | UL - Canada, USA, CE |
| Radio | Public Safety (Part 70 fixed wireless) FCC 15.407 (UNII, ISM), Industry Canada RSS-210, ETSI (w/TPC and DFS) |