AIRVINE

DATASHEET

WaveCore™ 1000-RH



The WaveCore 1000-RH is the world's first wireless bridge that penetrates concrete and brick at gigabit speeds. Designed as a complement to the WaveTunnel, together the two products enable wireless indoor backbones that can be deployed in any building, any floor plan, anywhere.

The system combines a high-performance front end enabling multi-gigabit data rates through 12" or more of concrete. The bridge can be configured quickly using VineManager™; an intuitive browser-based device management utility.

The WaveCore is designed to go through walls as well as ceilings and floors. Penetrating any barrier constructed of brick or concrete are the target applications for this product. Like the WaveTunnel™, this system can be employed in a variety of applications or markets. With the WaveCore you no longer need to core drill with the attendant x-rays, inspections and drilling. Acting as a simple bridge, the system ships in pairs – 2 units per box.



WaveCore is ideal for a multitude or applications, a sampling are listed here:

- Connecting Fire Control rooms
- Network rooms with concrete walls
- Building floors/ceilings eliminating the need for risers
- Firewalls
- Anywhere you need to get through a concrete wall or barrier without relying on core drilling

When combined with the WaveTunnel™, the systems enable complete wireless indoor backbones to be upgraded or extended in hours in any building, with any floor plan. No more cables, conduits and the attendant construction disruption – mount, power and walk away. It's that simple.

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MECHANICAL

Dimensions	257mm x 68mm x 261mm (10.1" x 2.7" x 10.3"), not including bracket
Weight	4 lbs. (1.8kg) without mounting brackets 5 lbs. (2.26kg) with small brackets 5.7 lbs. (2.58 kg) with large brackets
Enclosure Materials	ABS/PC with aluminum heat sink
Mounting	Short wall/ceiling/acoustic ceiling mounting brackets are included

HARDWARE

Networking Interface	One 10 Gbps Ethernet port (RJ45) PoE 802.1at PD Power Input One 10 Gbps Ethernet Port (SFP+) Available with optional feature license
RF Connections	One 6 GHz high-capacity radio with directional antenna One 2.4 GHz Wi-Fi radio with omni antenna for local management 802.11b/g/n Wi-Fi radio for management
Power Consumption	25.5 Watts Maximum, 20 Watts Typical
Power Input Voltage & Max Current	12 VDC Input Voltage Range: 11 to 13 VDC Max Current: 2.32 A 48 VDC PoE Input Voltage: 42 to 57 VDC Max Current: 0.61 A
Power Input Connector 12V	Accepts circular 2.1mm ID / 5.5mm OD power connectors. Outside +, Inside -
Operating Temperature	-20°C – +55°C
Humidity	5% to 95%, non-condensing

REGULATORY

RF	6 GHz: FCC 15E, ISED RSS-248, EN 303 687 2.4 GHz: FCC 15.247, ISED RSS-247, EN 300 328
EMC, Exposure	EMC: FCC Part 15, ICES-003, EN 301-489-1, EN 301-489-17 Exposure/Immunity FCC 2.1091, RSS-102, EN 62311, EN 55032, EN 55035
Safety	EN/IEC/UL 62368-1 Rev 3, CE Mark, RED
Environmental	RoHS, REACH, WEEE

SOFTWARE

OS	VineOS™
Operating Mode	Point-to-Point Bridge Mode
Services	NTP client, FTP client (for software download)
Tools	Antenna Alignment Tool
Software Management	VineManager: HTTPS Web GUI
Minimum Software Requirements	Web Browser
Networking Support	VLAN Transparent Pass Through, Management VLAN

SYSTEM

Concrete Penetration	Up to 12 Inches / 30 cm of Concrete
Encryption	WPA3-SAE (AES)

RF 6 GHZ

Frequency Band **	5.925–7.125GHz
Bandwidths	Up to 320 MHz
Antenna Type, Azimuth& Elevation	Directional Antenna, ±10 degrees Azimuth, ±10 degrees Elevation

* Specifications subject to change without notice
** Frequency Band support will vary based on the country of operation

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