Ortronics Wi-Jack™ Wireless Wall Outlet

Dual-band Dual-purpose 802.11a/b/g Access Point

The Ortronics Wi-Jack™ Wireless Wall Outlet is a dual-purpose device that functions as a "thin" Wi-Jack capable of supporting all current 802.11 standards, or operating as a dedicated air monitor to help protect and manage your RF environment. Upper layer media access control (MAC) processing functions such as encryption and authentication are integrated into the family of Ortronics wireless controllers, making the wall Wi-Jacks more cost-effective and simpler to deploy and manage.

Each Ortronics Wi-Jack allows support for 802.11a (up to 54 Mbps) within the 5 GHz RF spectrum or 802.11b (up to 11 Mbps) and 802.11g (up to 54 Mbps) within the 2.4 GHz RF spectrum. Internal antenna diversity allows for the best possible signal processing using dual omni directional antenna technology.

The Ortronics Wi-Jack works with all Ortronics wireless controllers and power over Ethernet (PoE) injectors to provide comprehensive wireless LAN solutions for enterprises. Ortronics Wi-Jacks are easily configured by the central wireless controller and are easy upgradeable as new features, capabilities, and standards emerge. This extends your wireless investment and eliminates the requirement to upgrade each access point.

Functioning as an air monitor, the Ortronics Wi-Jack wall outlets let administrators monitor the air, remotely capture packets for analysis, provide detection and protection against unwanted wireless intrusions and have immediate access to valuable RF spectrum information.

PART NUMBER	DESCRIPTION
OR-AP	Wall mount Wi-Jack, fog white
OR-APWS	Wall mount workstation with integrated Wi-Jack, fog white

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Features and Benefits

Wall Mountable

The Ortronics Wi-Jack comes in two unique and patent pending versions:

As a stand alone device, ready to be easily integrated into its environment; or as a complete workstation containing, in one spot, all necessary network connectivity: copper (voice, data, Category 5e, Category 6), fiber, coax, and wireless. One workstation, one location, easy to install directly onto the wall.

All Ortronics Wi-Jacks may be installed on the wall, drastically reducing the installation and maintenance costs required by ceiling installations.

Wi-Jacks are Completely Plug-and-Play

Ortronics Wi-Jacks can be attached to any existing L2/L3 port across any subnet boundary. Once connected, Ortronics Wi-Jacks self-configure by automatically building a secure IP (generic routing encapsulation or GRE) tunnel to the Ortronics wireless controller. The controller automatically configures each Wi-Jack from a single point based on the policies and configuration set by the administrator. This dramatically simplifies operation and obviates the need for configuring discrete VLANs for new and existing APs. All mobility is handled centrally within the Ortronics wireless controller.

Cost-Effective Deployment and Easy Upgrades

Ortronics Wi-Jacks provide support for 802.11a or b/g. Unlike conventional APs, Ortronics Wi-Jacks are not overburdened with performing wireless user authentication, encryption, and other processing-intensive functions. The Wi-Jack functionality and intelligence is centralized within the Ortronics wireless controller to deliver higher system scalability and performance along with the ability to support new standards and services without upgrading hundreds of devices. Additional benefits include better support for roaming and low-latency (2-3 msec intra-controller) handoffs between APs—making the Ortronics solution ideal for handling delay-sensitive applications such as voice over wireless.

Ortronics APs are managed and controlled by Ortronics controllers. Critical configuration information, such as passwords or digital certificates, are not stored on the AP. If lost, stolen, or damaged sensitive information cannot be obtained.

Air Monitoring Provides Wireless Intrusion Protection and RF Analysis

Although the Ortronics Wi-Jack wall outlet is a thin AP, it is capable of performing a variety of valuable RF processing and monitoring functions to enhance the enterprise WLAN. By providing programmable packet capture, Ortronics Wi-Jack wall outlet provides wireless RMON capabilities letting administrators quickly diagnose and troubleshoot wireless problems remotely.

In air monitor mode, the Ortronics Wi-Jack delivers intrusion analysis and relays alerts back to the Ortronics central wireless controller. With Ortronics Wi-Jacks providing constant air monitoring, rogue APs can be detected and denied from providing service, while wireless intrusions such as Denial of Service (DoS), Man-in-the-Middle, and other attacks can be detected and thwarted.

Dynamic Power Settings Support RF Management

The Ortronics Wi-Jacks have granular power settings that are automatically adjusted as needed by the Ortronics wireless controller. Auto-calibration of the Wi-Jacks by the controller provide for optimal coverage and automatic recovery in the event of a Wi-Jack failure.

Upgradeable as New Features Become Available

With its upgradeable architecture the Ortronics wireless controllers can take advantage of new features and standards without the worry of having to upgrade or replace your existing Wi-Jacks. New capabilities such as localization services, Quality of Service (QoS), are easily added when available.

Power Over Ethernet Ready

Ortronics Wi-Jacks are fully IEEE 802.3af standard compliant. Available PoE power injectors eliminate the expensive installation costs associated with powering typical APs. Power over Ethernet (PoE) reduces wireless LAN installation and maintenance costs and provides simple reliable power to your Wi-Jack APs.

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Specifications

Antennas
2 x dual band omni-directional diversity

Radio Specs–802.11A
Frequency band
- 5.150 ~ 5.250 GHz (lower band) (US, Canada, Japan)
- 5.250 ~ 5.350 GHz (middle band) (US, Canada)
- 5.725~ 5.825 GHz (higher band) (US, Canada)

Radio technology: Orthogonal Frequency Division Multiplexing (OFDM)
Modulation type–BPSK, QPSK, 1-QAM, 64-QAM
Transmit power–user configurable up to 100mW
MAC–CSMA/CA with ACK
Operating Channels:
- US & Canada: 12
- Japan: 5

Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

Radio Specs–802.11B
Frequency band
- 2.412 ~ 2.462 GHz (US, Canada)
- 2.412 ~ 2.472 GHz (ETSI)
- 2.412 ~ 2.484 GHz (Japan)
- 2.457 ~ 2.462 GHz (Spain)
- 2.457 ~ 2.472 GHz (France)

Radio Technology–Direct Sequence Spread Spectrum (DSSS)
Modulation type–CCK, BPSK, QPSK
Transmit power–user configurable up to 100mW
MAC–CSMA/CA with ACK
Operating Channels:
- US & Canada: 11
- ETSI: 13
- Japan: 14
- Spain, France: 2

Data Rates: 1, 2, 5.5, 11 Mbps

Radio Specs–802.11G
Frequency band
- 2.412 ~ 2.462 GHz (US, Canada)
- 2.412 ~ 2.472 GHz (ETSI)
- 2.412 ~ 2.484 GHz (Japan)
- 2.457 ~ 2.462 GHz (Spain)
- 2.457 ~ 2.472 GHz (France)

Radio Technology–Orthogonal Frequency Division Multiplexing (OFDM)
Modulation type–CCK, BPSK, QPSK, 16-QAM, 64-QAM
Transmit power–user configurable up to 100mW
MAC–CSMA/CA with ACK
Operating Channels:
- US & Canada: 11
- ETSI: 13
- Japan: 14
- Spain: 2
- France: 4

Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

Manageability
Management of all 802.11 parameters
Network Wide AP Management via:
- CLI
- Web GUI
- SNMP

Wi-Jack Profiles
Management by:
- Geographical Location
- BSSID
- Radio Type

Encryption Support (AP and Switch)
- 40-bit/64-bit/128-bit/152-bit WEP, TKIP, AES

Physical (h/w/d)
"Wall Wi-Jack 165 mm x 117 mm x 41 mm (6.50" x 4.625" x 1.625")
"Wall Wi-Jack workstation 165 mm x 140 mm x 35 mm (6.50" x 5.52" x 1.38")

Interfaces (electrical)
1 x 10/100 Base-TX auto-sensing Ethernet RJ-45 Interface
Auto-sensing MDI/MDX
Serial and Power Over Ethernet - 48V DC/150mA Power Over Ethernet (802.3af compliant)

Interfaces (mechanical)
Category 5e patch cord interface

Visual Indicators (internal LEDS)
(Ready) Power
(Ethernet) link status/Activity
Wireless Interface

Power Requirements
48V DC/150mA Power Over Ethernet (802.3af compliant)

Environmental
Temperature
- Operating: 0° to 40° C (32° to 104° F)
- Storage: 0° to 70, C (32° to 158° F)

Humidity 5% to 95% (non-condensing)

Standards
Ethernet IEEE 802.3/IEEE 802.3u
Power Over Ethernet IEEE 802.3af
Wireless IEEE 802.11a/b/g

Safety
UL 60950
EN60950/IEC60950

Electromagnetic Compliance
FCC Part 15 Class A, FCC Part 15 Class C 15.207/15.247
FCC Part 15 Class E 15.407
ICES-003 Class A
RSS 210 (CAN)
VCCI Class A
EN 61000-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4
EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11
European Directives 73/23/EEC and 89/336/EEC
EN 55022, EN55024 (89/336/EEC)
ETS 300 328 (89/336/EEC), ETS 301 489 (89/336/EEC)
ETS 301 893
AS/NZS 3548 Class A
RFS 29 (NZ)