

RF PROTOCOL CONVERTER

DESCRIPTION

The Radio Frequency (RF) Protocol Converter, RFPC, is an INNCOM Integrated Room Automation System (IRAS) device that links data from room-level RF networks with building-wide networks. Building-wide networks can be Ethernet 802.3, wireless Ethernet 802.11x or wired RS-485 infrastructure.

The RFPC is designed to receive data from multiple, co-existing room-level RF networks such as ZigBee 2004, ZigBee 2006, ZigBee Pro or other 802.15.4 networks. It then manages and routes the aggregated data to either the building network or back to other co-existing, room-level network devices.

It has the unique capability of integrating multi-vendor systems that are otherwise not interoperable. The RFPC is a key element to a converged IP network strategy.

APPLICATION

The RFPC is designed to support a group of 1 to 30 rooms depending on the application density. Application density is defined as the number of devices, amount of traffic created by each device and the topology of the network and the building characteristics.

If the application is primarily for building-wide network connectivity, the RFPC will typically support 10 to 30 rooms. However, if the application requires aggregation of many devices per room, and it is used to manage functionality of devices within the room, the RFPC will typically support 1 to 10 rooms.

Determining the actual number of RFPC's required to support an IRAS depends on bandwidth allocation, distributed antenna systems (DAS), latency, reliability, mission criticality of applications, and other aspects. RF systems of this type require careful engineering to insure optimum performance and reliability.

OPERATION

The RFPC is configured at the time of installation with a static or dynamic IP address and other network attributes.

Each RF radio installed into the RFPC has an associated LED that indicates proper operation of the respective network radio.

Once installed and commissioned, the RFPC does not require scheduled maintenance. The central server monitors the operation of the RFPC devices and indicates malfunctions should they occur.

FEATURES

- Wired and wireless communication
- Multi-radio functionality up to 5 total
- Supports multi-port Ethernet 802.3
- Supports wireless Ethernet 802.11x
- Supports PoE
- Supports ZigBee 2004
- Supports ZigBee 2006
- Supports ZigBee Pro
- Supports 802.15.4 MAC
- 128 bit AES encryption



SPECIFICATIONS

- Model number RFPC
- Power 12 VDC 0.5 Amp or PoE
- 802.11 receive sensitivity -74 dB
- ZigBee 802.15.4 receive sensitivity -95 dB
- Dimensions 6.5" x 5" x 1.5"
(165.1 mm x 127 mm x 38.1 mm)
- FCC Part 15B Compliant

