Radiowave R865

This Radiowave Wireless provides a common platform for a transparent conversion of automation protocols . It smoothly integrates into the existing field networks in Plant with both wired and wireless network standards.

Radiowave is configured and diagnosed by a dedicated configuration tool. LED indicators reveal the status information for Power & Rx Tx Communication. The protocol conversions are pre-programmed and loaded as dedicated firmware into the device. Radiowave delivers wireless connectivity to electronic devices through advanced mesh network or point to point. It provides wireless connectivity to replacing existing wired IO data of the sensors, controllers and other devices.

FEATURES

- Number of Ports: 8ch/4ch/2ch IO & 1 LoRa (Wireless)
- Lo-Ra Topology: Point-Point/Point-Multipoint/Mesh
  Router/Co-ordinator/Aggregator/Master/
  Slave configuration through (Co-ordinator/Master)
- Wireless range extension possible through router

APPLICATION

- Data sharing between PLC, DCS, Controllers, Inverters and other network devices
- Operator Interfaces
- Industrial / Factory / Process/Building Automation
- Intelligent Field Sensors and Actuators Communication
- Solar String / Environmental Monitoring

TECHNICAL SPECIFICATIONS

Function

RF Data Rate: 250 kbps
Indoor Range: 0 to 2Km typically
Transmit Power: 43 mA (+15 dBm)
Receiver Sensitivity: -148 dBm
Outdoor Range: 0 to 8Km typically (Line of sight) without Obstacles

Wireless

Network Topologies: Point-to-point, Point-to-multipoint, Mesh
Operating Channels: 11-16
Protocol supported: LoRa
Spread Spectrum: Type Direct Sequence

Structural

Enclosure material: ABS/MS
Enclosure protection: IP65/IP69
Mounting: Wall mount / Pole Mount

Features

Frequency Band: IN865 MHz
Working Mode: Can work as Router and Coordinator
Antenna: Fiber glass antenna 3-11dBi
Serial Data Interface: RS485 (can connect to any third Party RS485 Network) (Optional)

Power Supply

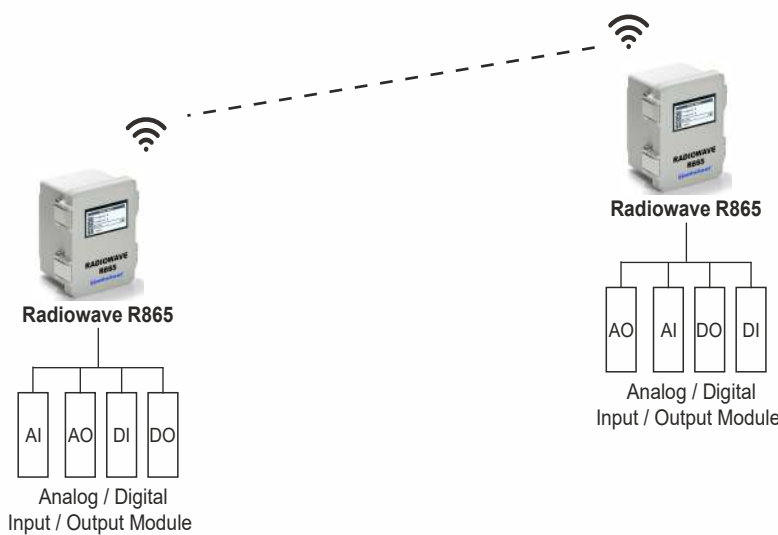**Voltage:** 230 VAC / 24VDC (Optional)
Power consumption: 3W

Sustainability

Ambient temperature: 0 to 60°C
Storage temperature: -10 to 70°C
Humidity: 30% to 95% RH (Non-Condensing)

NOMENCLATURE

Model	Analog IO	Digital IO	Range (Km)	Extension Cable	Antenna	Power supply
R865-XX	**2A-** 2 Channel **4A-** 4 Channel **8A-** 8 Channel **16A -** 8 Channel	**2D-** 2 Channel **4D-** 4 Channel **8D-** 8 Channel **16D-** 8 Channel	**1 -** <=1 **2 -** <=3 **3 -** <=5	**A -** 2 Meters **B -** 10 Meters **C -** 20 Meters	**3 -** 3 dBi **5 -** 5 dBi **8 -** 8 dBi **11-** 11 dBi	**P1 -** 230 VAC **P2 -** 24 VDC

ARCHITECTURE

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Analog / Digital Input / Output Module

Analog / Digital Input / Output Module

SIGNAL ANALYSIS