

MDS NETio™

Communications Solutions for Analog and Discrete I/O Signals



Features/Benefits

MDS NETio - Base Unit

- 900 MHz or 2.4 GHz
- 1AI, 1AO, 2DI, 2 DO
- Serial or IP/Ethernet Connectivity
- Payload Serial or IP/Ethernet Communication for local RTU
- Protocol support for popular protocols such as MODBUS, DF1, MODBUS TCP and EtherNet/IP
- I/O Signal Regeneration for I/O extension and wireless cable requirements

Features/Benefits

MDS NETio - Expansion Unit

- 1AI, 1AO, 2DI, 2 DO
- Up to 6 can be added to NETio Base Unit
- Connected locally to Base Unit for additional I/O capacity
- Supports short range wireless communication to Base Unit up to 1000 Ft.

Applications

- Communications Extension
Protocol addressable I/O via Serial or IP Ethernet
- I/O Signal Extension
Regenerate I/O Signals between Devices and Machines or Controllers
- Concurrent Communication
Payload SCADA Communications to RTU or PLC, plus I/O Signal extension

MDS...Global wireless solutions. Industrial Wireless Performance.

For nearly two decades, Microwave Data Systems (MDS) has been providing highly secure, industrial strength mission critical wireless communications solutions for a broad spectrum of public and private sector clients worldwide. With an installed base approaching 1,000,000 radios in 110 countries, MDS offers both licensed and license-free solutions with applications in SCADA, telemetry, public safety, telecommunications, and online transaction markets.

Introducing MDS NETio™

NETio is an integrated, scalable family of wireless communication products for analog and discrete I/O signals. NETio allows users to interface I/O signals using standard serial and IP/Ethernet protocols or regenerate I/O signals between PLCs, RTUs and control/monitoring devices.

Today's industrial automation users face many challenges. Some of the most important involve the demands for more data and information. NETio helps users meet this demand by:

- Cost effectively extending serial or network communication to smaller clusters of analog and discrete I/O signals
 - Reducing wiring and termination costs between devices, machines and controllers
 - Eliminating overhead integration and support costs found with multi-box, solutions
- NETio is an ideal solution family that is scalable for range, I/O capacity, protocol and frequency by supporting:
- Wireless communication over distances ranging from hundreds of feet to 25-plus miles
 - I/O Capacities between 1 to 24 points
 - Serial and IP/Ethernet communication supporting a library of industry-standard protocols
 - License free wireless in 900 MHz, 2.4 GHz as well as operation in licensed frequencies

NETio Overview

The NETio family comprises a series of modules. Together these modules provide a simple, cost-effective, out-of-the-box communication solution that is completely scalable to the users unique range, frequency and I/O count requirements.

The NETio family consists of:

- A wireless Base Unit with a capacity of 1 AI, 1 AO, 2 DI and 2 DO
- An I/O Expansion Module with the same I/O capacity

Why use an MDS NETio™ Wireless Network Solution?

Communication Extension: Extending serial or network communication to clusters of analog and discrete I/O signals.

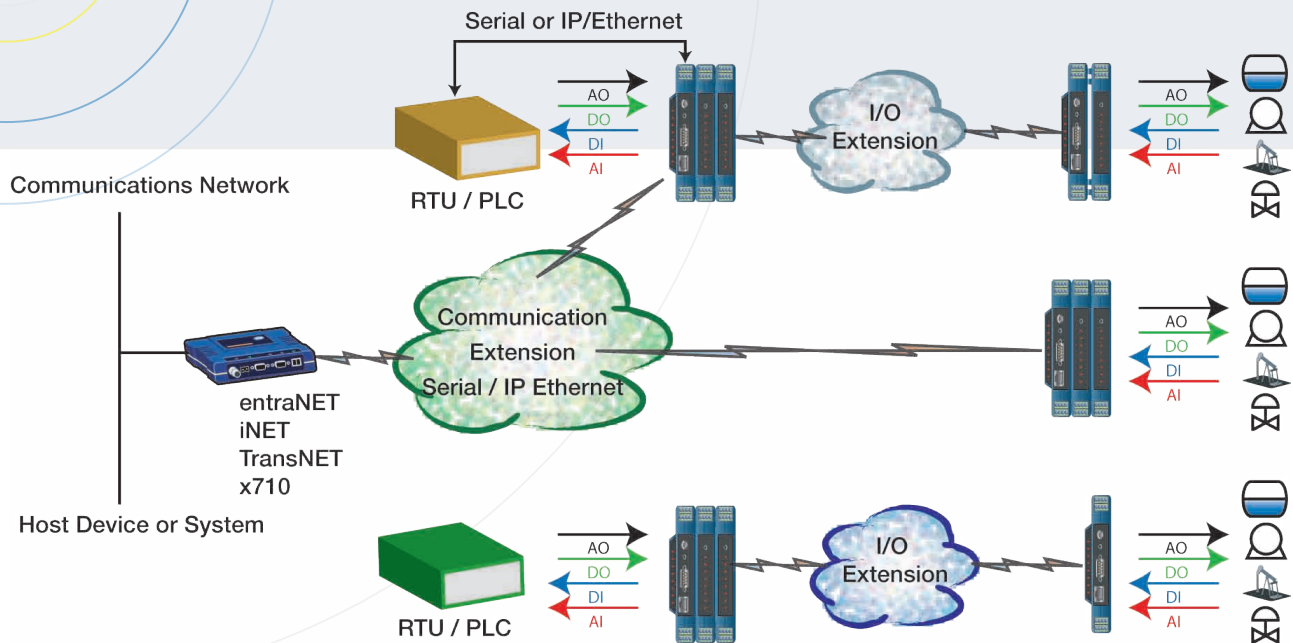
I/O Extension: Regenerating I/O Signals between devices, machines and controllers.

Concurrent: Extends I/O signals to RTU and PLC equipment and concurrently handles payload SCADA communications between RTU and SCADA host.

Scale Costs: To meet your unique range and I/O count requirements.

INDUSTRIAL WIRELESS PERFORMANCE

MDS NETio™ Specifications



General

- Power: 6-30 VDC.
- Communication: Serial and IP/Ethernet
- Current Draw:
 - Transmit: less than 600 mA (@13.8V)
 - Receive: less than 100 mA (@13.8V)
- Sleep Mode: 10mA at 12 VDC less than 1mA at 12 VDC in Shutdown Mode
- Temperature: -40 to +70 degrees C.

Analog Input

- Output Points: One
- Input Signal Range: Current 0 to 20 mA
- Voltage: -10 to +10 VDC
- Input Type: Differential
- Resolution: 20-bit
- Isolation: 550 VAC from input to chassis

Digital Inputs

- Input Points: 2 (Two)
- Type: Contact input and pulse counting
- Isolation: 1500 volts to chassis ground
- Visual Indicators: Four red LEDs controlled by the IO module uP for power savings

Analog Outputs

- Output Points: 1 (One)
- Output Signal Range: 4-20mA, 0-5 VDC, 0 -10 VDC etc/
- Isolation: 500 VAC field to SPI bus and 5V power
- Resolution: 16 bits

Digital Outputs

- Output Points: 2 (Two)
- Output Range: 12-24 VDC
- Load Current: 2A continuous per output
- Isolation: 1500 volts to chassis ground
- Visual Indicators: 3 LEDs control by the IO module uP for power savings

Mechanical

- Case: High impact plastic
- Mounting options: DIN rail
 - Base Unit
 - Dimensions: 14.6 H x 4.14 W x 11.4 D cm. (5.75 H x 1.63 W x 4.5 D in.)
 - Weight: 226 g (.5 lb.)
 - Remote
 - Dimensions: 14.6 H x 3.0 W x 11.4 D cm. (5.75 H x 1.19 W x 4.5 D in.)
 - Weight: 226 g (.5 lb.)

Pending Agency Approvals

- FCC Part 15.247
- CSA Class 1 Div. 2 Groups A, B, C and D for hazardous locations (ANSI/UL equivalent)
- IC

This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease until approval of the FCC has been obtained.



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