

# MDS FIVE.8™ & MDS FIVE.3™ WIDEBAND CONSECUTIVE POINT



## Features

- Fast Ethernet—Scalable from 25 Mbps to 100 Mbps
- Scalable to up to 16 T1/E1s
- Scalable and Spectrally Efficient
- ISM 5.8 GHz Unlicensed Band
- UNII 5.3 GHz Unlicensed Band
- Adaptive Power Control
- Easily Deployed and Activated
- Ring Architecture Minimizes Interruptions

## Applications

- Connect Buildings, Campuses, etc.
- Backhaul/Extend IP Networks, SANs
- Utility Monitoring, Control, Data Network Aggregation
- Eliminate Monthly Leased Line Fees Means Quick ROI

## 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, tele-communications, and online transaction markets.

## Introducing MDS FIVE.8™ and MDS FIVE.3™

The MDS FIVE Series consists of an open front/rear Software Defined Indoor Unit (IDU) and Outdoor Unit (ODU). The MDS FIVE Series radios are spectrum and data rate scalable, enabling utilities or other organizations to trade-off system gain with spectral efficiency and channel availability for optimal network connectivity. The MDS FIVE.8™ radio delivers aggregate rates up to 200 Mbps within the 5.7 – 5.8 GHz ISM band for distances of up to 20 miles. The MDS FIVE.3™ is also available supporting the 5.25 – 5.35 GHz UNII band. A common platform supports plug-in 100 Mbps Ethernet.

## Why use an MDS FIVE Series Solution?

- Quick return on investment—replaces leased-lines.
- Consecutive point architecture configurable—able to support a ring/consecutive point configuration with special set-up (see diagram on back of data sheet).
- Self-healing redundancy—more reliable than traditional point-to-point networks.
- Automatically adjusts transmit power in response to RF interference, simplifying deployment, network management, and enabling dense deployment.

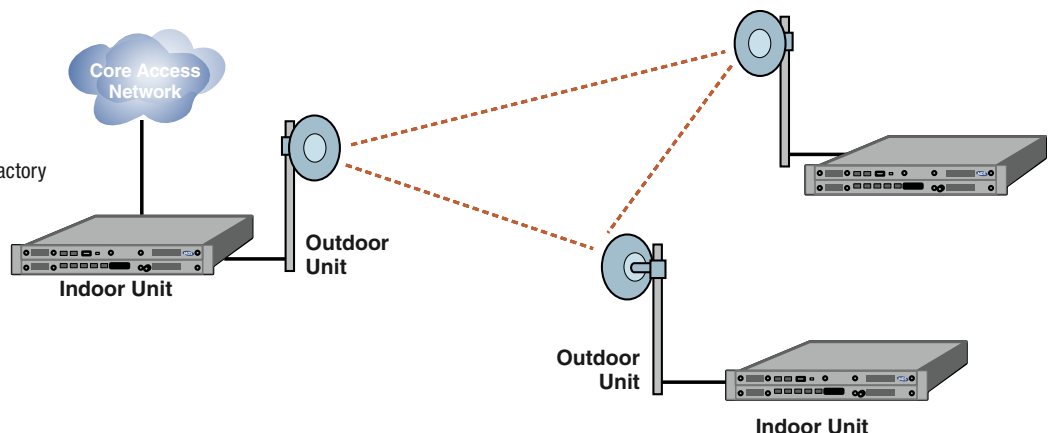
# INDUSTRIAL WIRELESS PERFORMANCE

# MDS FIVE SERIES SPECIFICATIONS

MODEL	THROUGHPUT DATA	INTERFACE	WAYSIDE
MDS FIVE Series – 050	100 Mbps Aggregate (50 Mbps full-duplex)	100 Base TX	Two T1/E1s
MDS FIVE Series – 100	200 Mbps Aggregate (100 Mbps full-duplex)	100 Base TX	Two T1/E1s

General	FIVE.8 (ISM)	FIVE.3 (UNII)	Data Interface Continued
Frequency Range	5,725 – 5,850 MHz	5,250 – 5,350 MHz	Compliance
Average Output Power	-8 to 23 dBm RMS	-18 to +13 dbm RMS	Ethernet: IEEE 802.3 Nx/E1/T1: ITU-T
Max EIRP	+46 dBm RMS (with integrated antenna)	+30 dbm	Auxiliary Connections
Capacity Options	Ethernet: Spectrum scalable from 25 Mbps to 100 Mbps full duplex +2 T1/E1 Wayside Channels		Wayside Channels T1/E1 - Interface DSX-1 - Connector RJ-48C Alarm Port - 2 Form C relay alarm outputs, 2 TTL outputs Voice Service Channel - 6 wire, PTT handset
Modulation	QPSK, 16-QAM, 32-QAM, 64-QAM		Network Management
FEC	Trellis Coded Modulation concatenated with Reed-Solomon Coding		Support
Receive Sensitivity	100 Mbps 25 MHz: -67 dBm 50 Mbps 25 MHz (50FE2): -73 dBm 25 Mbps 25 MHz (25FE2): -79 dBm 16 T1 25 MHz: -79 dBm 16 E1 25 MHz: -77 dBm		- Network management config. tool - SNMP v1, 2, 3, and web-based config. - Built-in Web browser
Antenna Gain	23 dBi (integrated antenna)		Connector
Antenna Connector	N-Type Female for optional external antenna		RJ-45, 10/100BaseTX
Distance	Up to 20 miles (or greater, depending on antenna)		Environmental
Power	-48 volts +/- 10%, <70 watts; Optional 100–240 Volts AC, 47–63 Hz power supply		Temperature
Encryption*	Encryption based upon a 128-bit key is available for select markets and is applicable for the MDS FIVE Series -50 and -100 products only		IDU -5° to 55°C (32° to 131°F) ODU -30° to 55°C (-22° to 131°F)
Protected Option*	Configurable for 1+1, hot standby, hitless switching, spacial diversity (not for diversity combining)		Humidity
Data Interface			IDU: 0 to 95%, non-condensing ODU: Up to 100% at 45°C (113°F)
Physical	100BaseTX Full duplex E1/T1		Altitude
Connector	Ethernet: RJ-45 Nx/E1/T1: 2xRJ-48C, HD60		IDU/ODU: 4500 m (14,100 ft.)
			Mechanical
			Size
			IDU: 1RU, ETSI Compliant 17.5 x 9.4 x 1.75 inches (445x238.5x44.5mm) rack mount 19 inches, (48.2 cm) ODU: 15.7 x 14.5 x 2.1 inches (39.9x36.8x5.33cm)
			Weight
			IDU: 7 lbs. (3.17 kg) ODU: 15 lbs. (6.8 kg)
			Agency Approvals
			FCC approved IC approved

FIVE Series Simplified Ring-Architecture Diagram  
(6 units needed – consult factory for details)



\* Release II



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MDS products are manufactured under a quality system certified to ISO 9001. MDS reserves the right to make changes to specifications of products described in this data sheet at any time without notice and without obligation to notify any person of such changes.  
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