

Digital Data Series Transceiver

WDSx710(MDSx710)/x710IP



WDSx710(MDSx710)



WDSx710IP

Industrial wireless PERFORMANCE

WDS...Global wireless solutions. Industrial Wireless Performance.

For over 15 years, Wireless Data Systems has been providing wireless networking solutions with applications in SCADA, telemetry, telecommunications, and online transaction markets. WDS provides licensed and unlicensed solutions, with more than 500,000 radios installed in over 10 countries.

FEATURES

- High Performance—Digital Signal Processing (DSP) Engine
- Flexibility—Single Unit Configurable as Master or Remote Radio
- Compatibility—Inter-Operable Versions Available for use with Existing MDS 2000, MDS 4000 Series Radios

APPLICATIONS

- Gas/oil production and distribution
- Water, gas and electric utilities
- Lotteries
- Traffic control
- Industrial process control
- Railroad communication systems

WDS Transceiver Series Over view

The WDS Transceiver Series is a price/performance leader in licensed radios in the 108-174MHz, 220-222MHz, 330-512MHz, and 800-960MHz frequency ranges. They provide increased throughput, and longer-range for multiple address systems. Transparent and direct asynchronous communication offers real-time communication. No extra software or programming is needed to implement communications using standard asynchronous protocols. A general purpose (unconditioned) digital output is available.

The Transceiver Series is field configurable as a master station or remote radio. They can operate as a half-duplex or simplex radio. They support all splits in duplex frequencies. When operating as a master station, full network diagnostics are available. Simplex mode permits peer-to-peer radio communications. This product is available for use in Class I, Division 2, Groups A, B, C & D hazardous locations.*

Why Consider a WDS Transceiver Series Solution?

High system performance and data integrity! Through robust construction, digital signal processing technology (DSP) and we offer up to 19.2kbps data throughput.

Rapid Installation! Quick return on investment due to ease of wireless installation. This licensed radio offers the ability to communicate with any asynchronous protocol without extra software or extra programming.

Performance under the most adverse conditions! Exceptional design provides excellent performance in the face of jamming or difficult signal paths.

Network Wide Diagnostics! InSite Network Management software simplifies maintenance tasks and reduces the cost of managing the network infrastructure. Provides a non-intrusive means of maintenance and link monitoring.



Receiver
(9.6x1.3x4.8cm, 50g)

Digital Data Series Transceiver Specifications

General

	WDS 1710C/IP	WDS 2710C/IP	WDS 4710A	WDS 4710C/IP	WDS 9710C/IP	
Frequency Bands:	130 to 174MHz	220 to 240MHz	330 to 5122MHz	330 to 512MHz	800 to 960MHz	
Freq.Programmability:	6.25kHz increments to any MAS channel pair	6.25kHz increments to any MAS channel pair	6.25kHz increments to any MAS channel pair	6.25kHz increments to any MAS channel pair	6.25kHz increments to any MAS channel pair	
4 Wire						
Model:	Agency Approval:	Analog	Data Rate:	Port Speed:	Bit Error Rate:	Diagnostics
1710C/IP		Yes	19200bps (rf)	300bps-38.4 kbps(data) @ 25kHz Channel Spacing	BER 1x10 ⁻⁶ @ -105dBm typical	Network Wide Diagnostic Option
2710A		Yes	9600bps (rf)	300bps-38.4 kbps(data) @ 12.5kHz Channel Spacing	BER 1x10 ⁻⁶ @ -110dBm typical	Network Wide Diagnostic Option
2710C/IP	China	Yes	19200bps (rf)	110bps-38.4 kbps(data) @ 25kHz Channel Spacing	BER 1x10 ⁻⁶ @ -105dBm typical	Diagnostic Option
4710C/IP		Yes	19200bps (rf)	110bps-38.4 kbps(data) @ 25kHz Channel Spacing	BER 1x10 ⁻⁶ @ -105dBm typical	Network Wide Diagnostic Option
4710A	FCC Part 90 Industry Canada & ENTELA	Yes	9600bps (rf)	110bps-38.4 kbps(data) @12.5kHz Channel Spacing	BER 1x10 ⁻⁶ @ -110dBm typical	Network Wide Diagnostic Option
4710B	FCC	Yes	9600bps (rf)	300-9600bps(rf and data) @ 12.5kHz Channel Spacing	4800bps: BER 1x10 ⁻⁶ @ -110dBm typical 9600bps: BER 1x10 ⁻⁶ @ -108dBm typical	DTMF Diagnostic Option
4710E	ETSI:ETS 300 113 EMC:EN 300 279 CE Mark	N/A	4800bps (rf)	110bps-38.4 kbps(data) @ 12.5kHz Channel Spacing	BER 1x10 ⁻⁶ @ -113dBm typical	Network Wide Diagnostic Option
4710	UK MPT 1411 (analog)	Yes	analog	N/A	N/A	N/A
4710M	MPT1411 (digital)	Yes	9600bps (rf)	110bps-38.4 kbps(data)	BER 1x10 ⁻⁶ @ -106dBm typical	Network Wide Diagnostic Option
9710A	FCC E5MDS9710-1 Industry Canada & ENTELA	Yes	9600bps (rf)	110bps-38.4 kbps(data) @ 12.5kHz Channel Spacing	BER 1x10 ⁻⁶ @ -110dBm typical	Network Wide Diagnostic Option
9710C/IP		Yes	19200bps (rf)	300-38400bps(data) @ 25kHz Channel Spacing	BER 1x10 ⁻⁶ @ -105dBm typical	Network Wide Diagnostic Option

ALL MODELS

Operational Modes: Async.-Simplex, half-duplex,(synchronous available (9600bps only) in MDS 4710B, and MDS 9710B)

Data Interface: RS-232-485,DB-25(x710)/Layer 2(or 3) IP,RJ45(x710IP) transparent transmission

Transmitter

Frequency Stability: +/- 0.00015% 1.5ppm

Carrier Power: 0.1 to 5watts/5 to 25watts Programmable

Carrier Power Accuracy: Normal +/- 1.5dB

Duty Cycle: Continuous

Output Impedance: 50 Ohms

Receiver

Type: Double Conversion Superheterodyne

Frequency Stability: +/- 0.00015% (1.5 ppm)

Adjacent Channel (EIA): 60dB nominal

Power Supplies

Primary Power: Voltage 13.8Vdc nominal
(10.5 to 16 Vdc operating range)

Tx Current: 2A Typical at 5watts/5A Typical at 25watts

Rx Current: <125mA

Sleep Mode: 15mA nominal

Modem / Diagnostics

Modulation: Digital/CPFSK

CTS Delay: 0-255msec programmable in 1 msec increments

PTT Delay: 0-255 msec programmable in 1 msec increments

Physical

Case: Rugged Die Cast Aluminum

Dimensions: 5.1x14.3x18.4cm

2.5x11.9x15.8cm

Weight: 1000g,148g

Environmental

Temperature Range: -40°Cto +70°C(-40°F to +158°F)

Humidity: 95% at 40C (104°F) non-condensing

Additional Agency Approval

FM/UL/CSA: Approved*
(consult factory for country specific approvals)

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