MM2 Series 900 MHz 5 Watt Radio

FREEWAVE

KEY FEATURES

Output: 5 Watt RF output power

Improved Low Signal Performance: RISC based signal demodulation with matched filter

Versatility: A single radio can operate as a Gateway, Endpoint, Repeater, or Endpoint/ Repeater.

Unparalleled Signal Performance:

RF front end with multistage SAW filtering has unmatched combination of overload immunity and sensitivity

Selectable Speeds: 115.2 kbps and 153.6 kbps

Secure: Proprietary Spread Spectrum Technology prevents detection and unauthorized access

Size & Performance: Smallest data radio with the highest performance available

Reliable: 100% tested for performance from -40°C to +85°C

Options: TDMA, Super Epoch TDMA, AES Encryption

OVERVIEW

The MM2-9X5W 900 MHz 5 Watt radio has been designed to provide the performance, reliability, and quality that our customers have come to know and expect. The small form factor MM2-9X5W is ideal for applications where space is a premium.

The small form factor MM2-9X5W has all of the functionality of the MM2 series of radios and larger form factor FGR and FGR2 series of radios including: TDMA, Super Epoch TDMA, and AES encryption.

All radios are designed, manufactured and tested in Boulder, CO.



TECHNICAL SPECIFICATIONS

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DATA TRANSMISSION

Frequency Range902 to 928 MHzError Detection32 bit CRC, retransmit on errorRF Data Rate153 kbps and 115 kbps, user-selectableData Throughput115.2 kbps and 153.6 kbpsOutput Power5 WData EncryptionFHSS technologyData Link Range90 milesOptionsAES 128/192/256-bit encryption TDMA Super Epoch TDMAModulation2 level GFSKData Interface1200 bps to 230.4 kbpsOccupied Bandwidth30 kHzData Interface1200 bps to 230.4 kbpsHopping Channels50 to 112, user-selectablePOWER REQUIREMENTSHopping Patterns15 per band, 105 total, user-selectablePOWER REQUIREMENTSFrequency Zones16 zones+5 VDC (4.9 to 5.5VDC) +12 VDC (12 to 13.5VDC)Frequency Zones16 zones+5 VDC Typical Current -103 dBm @ 115.2 for BER 10.4Sensitivity-108 dBm @ 115.2 for BER 10.4 -103 dBm @ 153.6 kbps BER 10.4+12 VDC Typical Current -103 dBm @ 153.6 kbps BER 10.4IF Selectivity208 at fc +/- 230 kHz 40 dB at fc +/- 460 kHzINFORMATION TODynamic Range+10 dBm 3rd order intercept point at in put connectorModel Number MM2-9X5WModel NumberMM2-9X5WBoard Level, 5W MM2-9X5W-CE-				
Output Power5 WData EncryptionFHSS technologyData Link Range90 milesOptionsAES 128/192/256-bit encryption TDMA Super Epoch TDMAModulation2 level GFSKData Interface1200 bps to 230.4 kbpsOccupied Bandwidth230 kHzData Interface1200 bps to 230.4 kbpsHopping Channels50 to 112, user-selectablePOWER REQUIREMENTSHopping Patterns15 per band, 105 total, user-selectableOperating Voltage Both voltages are required+5 VDC (4.9 to 5.5VDC) +12 VDC (12 to 13.5VDC)Frequency Zones16 zones+5 VDC Typical Current Idle: 90 mATransmit: 590 mA Receive: 160 mA Idle: 90 mARF ConnectorMMCX-108 dBm @ 115.2 for BER 10^4 -103 dBm @ 153.6 kbps BER 10^4+12 VDC Typical Current Idle: 0 mATransmit: 1410 mA Receive: 0 mA Idle: 0 mAIF Selectivity20 dB at fc +/- 230 kHz 40 dB at fc +/- 460 kHzINFORMATION TO EDERModel Number MM2-9XSWDescriptionDynamic Range+10 dBm 3rd order intercept point at input connector+10 dBm 3rd order intercept point at input connectorModel Number MM2-9XSWDescription	Frequency Range	902 to 928 MHz	Error Detection	32 bit CRC, retransmit on error
Data Link Range90 milesOptionsAES 128/192/256-bit encryption TDMA Super Epoch TDMAModulation2 level GFSKData Interface1200 bps to 230.4 kbpsOccupied Bandwidth230 kHzData Interface1200 bps to 230.4 kbpsHopping Channels50 to 112, user-selectablePOWER REQUIREMENTSHopping Bands7, user-selectablePOWER REQUIREMENTSHopping Patterns15 per band, 105 total, user-selectableOperating Voltage Both voltages are required+5 VDC (4.9 to 5.5VDC) +12 VDC (12 to 13.5VDC)Frequency Zones16 zones+5 VDC Typical Current Idle: 90 mATransmit: 590 mA Receive: 160 mA Idle: 90 mARF ConnectorMMCX+12 VDC Typical Current -103 dBm @ 115.2 for BER 10-4 -103 dBm @ 153.6 kbps BER 10-4Transmit: 1410 mA Receive: 0 mA Idle: 0 mAIF Selectivity20 dB at fc +/- 230 kHz 40 dB at fc +/- 460 kHzINFORMATION TO DER Model Number Imput connectorModel Number MM2-9XSWDescription	RF Data Rate	153 kbps and 115 kbps, user-selectable	Data Throughput	115.2 kbps and 153.6 kbps
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input connector MM2-9X5W Board Level, 5W	Dynamic Range	· · ·	Model Number	Description
MM2-9X5W-CC Conformal Coated MM2-9X5W			MM2-9X5W	Board Level, 5W
			MM2-9X5W-CC	Conformal Coated MM2-9X5W

GENERAL INFORMATION

Operating Temperature	-40°C to +85°C
Humidity	0 to 95%, non-condensing
Dimensions	2.3 L x 2 W x 0.79 H (in)
Weight	34 g



CONTACT US

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