

MM2-MU Series

MM2-MU & MM2-MU-LV

340-400 MHz Radio

FREEWAVE

Contact us for product details and pricing

NavtechGPS

+1-703-256-8900 or 800-628-0885

info@NavtechGPS.com

www.NavtechGPS.com



KEY FEATURES

Versatility: Gateway, Endpoint, Repeater or simultaneous Endpoint and Repeater function in a single radio.

Long Range: 60 miles with clear line of sight with the ability to extend through Repeaters.

Noise Immunity: Superior performance in noise congested environments.

Secure: Frequency Hopping Spread Spectrum technology prevents detection and unauthorized access.

Error Free Communications: 32-bit CRC with automatic retransmissions.

Input Voltage: +8 to +30 VDC wide input voltage range or +5 VDC (-LV models).

Industrial Grade: 100% tested for RF performance from -40°C to +75°C.

Available Options: TDMA, Super Epoch TDMA, and 128, 192, and 256-bit AES encryption.

OVERVIEW

The FreeWave Technologies' products are designed to meet the rigorous demands of military, government, and international users worldwide. This user-configurable 340-400 MHz product is available as an OEM board level radio. It is used in applications ranging from UAVs to UGVs and more.

The MM2-MU products share the same features as our other radios that assure accurate data transmission, such as 32 bit CRC error detection with automatic retransmission and more.

The FreeWave MM2-MU Series of radios have been designed to provide the performance, reliability, and quality that our customers have come to know and expect in our products. The MM2-MU combines high performance with a small size making it ideal for applications where space is at a premium.

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

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TECHNICAL SPECIFICATIONS

TRANSMITTER

Frequency Range	340 to 400 MHz
RF Data Rate	115.2 or 153.6 kbps, user selectable
Output Power	Adjustable up to 2 W
Data Link Range	60 miles, clear line of sight
Modulation	2 level GFSK
Channel Spacing	230.4 kHz

RECEIVER

Sensitivity	-107 dBm @ BER 10^{-4} (115.2 kbps) -102 dBm @ BER 10^{-4} (153.6 kbps)
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DATA TRANSMISSION

Error Detection	32 bit CRC, retransmit on error
Maximum Throughput	115.2 kbps
Data Encryption	FHSS technology
Data Interface	Serial
Protocol	RS232 / RS485 or TTL

INTERFACES

Connector	Straight 14-pin dual row header, 2.0 mm spacing
RF Connector	MMCX

POWER REQUIREMENTS

Operating Voltage	+5 VDC (+/- 5%) (MM2-MU-LV models) +8 to +30 VDC (MM2-MU models)
+5 VDC Typical Current (LV models only)	Transmit: 1.5 A Receive: 190 mA Idle: 30 mA
+8 VDC Typical Current	Transmit: 1.2 A Receive: 126 mA Idle: 22 mA
+12 VDC Typical Current	Transmit: 700 mA Receive: 80 mA Idle: 14 mA
+30 VDC Typical Current	Transmit: 315 mA Receive: 37 mA Idle: 6.5 mA

GENERAL INFORMATION

Operating Temperature	-40°C to +75°C
Humidity	0 to 95%, non-condensing
Dimensions	2 L x 2 W x 0.3 H (in)
Weight	21g

INFORMATION TO ORDER

Model Number	Description
MM2-MU-C	Board Level, RS232, MMCX, 8-30 VDC
MM2-MU-T	Board Level, TTL, MMCX, 8-30 VDC
MM2-MU-LV-C	Board Level, RS232, MMCX, 5 VDC
MM2-MU-LV-T	Board Level, TTL, MMCX, 5 VDC



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