

MM2(FGR2)/NANO Series of FHSS



MM2-T
902-928MHz



F50EX008
225-400MHz



Q508X600
228-235MHz



N920/N320/N425/N1350
902-928M/310-390M/410-480M/1.35-1.39GHz

Overview:

MM2 radio has been designed to provide the performance, reliability, and quality that our customers have come to know and expect in our products in our products in a MM2 "Mega-Mini" form factor for applications where space is at a premium. The MM2 has all of the functionality of the larger footprint FGR Series of radios.

Features:

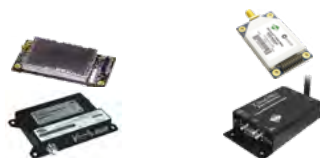
- Improved Low Signal Performance: RISC - based signal demodulation with matched filter.
- Versatility: A single radio can operate as a master, slave, repeater, or slave/repeater.
- Unparalleled Signal Performance: GaAs FEI RF front end with multistage SAW filtering has unmatched combination of overload immunity and sensitivity.
- High Noise Immunity: Superior performance in noise congested environments.
- TDMA: Time Divisible Multiple Access available.
- 115.2 - 153.6kbps
- Secure: Proprietary spread spectrum technology prevents detection and unauthorized access; 128 bit AES encryption available*.
- Reliability: Every radio 100% tested for RF performance from -40°C to +85°C .
- Size & Performance: Smallest data radio with the highest performance available.
- Low power consumption.
- UL Approved**



MM2-T
(5.1 × 3.6 × 1.0cm, 14g)
(TTL, 3.5/5.0V, MMCX)



FGR2 (N920/N320/N425)
(5.7x9.8x4.3/11.0x5.8x2.3cm, 228/136g)
(153.6k/1.2Mbps, 232/485/422, 7-30V)



MDS EL805 compatible Digi 9XTend compatible
(115.2kbps, 232/485/422, 7-30V)



FGR2-Multi-port
(11.4x9.8x4.3/8.7x5.4x2.2cm, 300/135g)
(153.6k/1.2Mbps, Multi-port, 232/485/422, 7-30V)



FGR2-15Watts
(15x12x6/11x8x4cm, 900/300g)
(19.2-345kbps, 232/485/422, 10.5-16V/4A)

MM2(FGR2)/NANO Series of FHSS

MM2-TTL 900MHz Series Technical Specifications

| Transmitter | | | | |
|-----------------------------|--|-------------------|--------------------------------|-----------------------|
| Frequency Range | 902-928M/225-400(228-235)M/310-390M/410-480M/1.35-1.39GHz(FHSS)(DTS) | | | |
| Output Power | 10 mW to 1 W, 1 to 2W | | | |
| Modulation | 2 level GFSK | | | |
| RF Data Rate | Selectable speeds 115.2 to 153.6kbps(MM2), 115.2k to 1.2Mbps(N920/N320/N425/N1350) | | | |
| Occupied Bandwidth | 230kHz/611.2kHz | | | |
| Hopping Patterns | 15 per Band, 105 total, user selectable | | | |
| Hopping Channels | 50 to 112, user selectable | | | |
| Hopping Bands | 7, user selectable | | | |
| Frequency Zones | 16 Zones | | | |
| RF Connector | MMCX(Straight) | | | |
| Receiver | | | | |
| Sensitivity | -108(MM2)/-107(N1350)/-106(N920/N320/N425)dBm @ 115.2 kbps for BER10 ⁻⁴ -103dBm @ 153.6 kbps for BER10 ⁻⁴ /-100dBm @ 1.2 Mbps for BER10 ⁻⁴ | | | |
| IF Selectivity | 40 dB at fc +/-230 kHz | | | |
| RF Selectivity | 50 dB at 896 MHz, 935MHz | | | |
| Dynamic Range | +10 dBm 3rd Order Intercept Point at Input Connector | | | |
| DATA Transmission | | | | |
| Error Detection | 32 bit CRC, Retransmit on error | | | |
| Data Encryption | Proprietary Spread Spectrum Technology | | | |
| Data Interface | 1200bps - 230.4kbps | | | |
| Data Connector | Straight 14-pin dual row header 2.0mm spacing | | | |
| Data Throughput | 115.2-153.6kbps(MM2), 115.2k-1.2Mbps(N920/N320/N425/N1350) | | | |
| Power Requirements | | | | |
| Operating Voltage | MM2:+5 VDC(+/-5%), N920/N320/N425/N1350: 3.3 VDC(+/-3%) | | | |
| Current(mA) | Mode | +5VDC(MM2) | +3.3VDC(N920/N320/N425) | +3.3VDC(N1350) |
| | Transmit | 635mA | 1.3A | 100mA |
| | Receive | 135mA | 160mA | 120mA |
| | Idle | 19mA | 20mA | 20mA |
| | Sleep | 6mA | 1mA | 1mA |
| General Information | | | | |
| Operating Temperature Range | -40°C to +80°C (-40 °F to +185 °F) | | | |
| Dimensions | 50.8 L x 36 W x 9.6 H(mm)(MM2), 32 L x 51 W x 6.35 H(mm)(N920/N320/N425/N1350) | | | |
| Weight | 14g(MM2), 18g(N920/N320/N425/N1350) | | | |
| Humidity | 0 to 95% non-condensing | | | |



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