

C1000M™

Miniature 115.2 Kbps Frequency Hopping 900 MHz Datalink



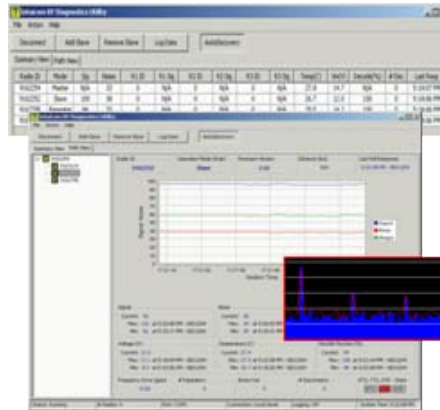
The miniature C1000M module is a high performance wireless datalink designed for OEM applications that require long range, high-speed communications in a compact form factor. Measuring just 2.44" x 2.75" x 0.59" and weighing 70g, the C1000M is ideally suited for both military/aerospace and industrial applications when size and weight are critical parameters. Built upon the Intuicom Communicator II platform, the C1000M is available with a TTL or RS232/RS422/RS485 data interface for simplified integration in a variety of systems.

NETWORK FLEXIBILITY

Providing up to 115Kbps of available bandwidth, a C1000M network is scaleable to facilitate dynamic systems integration requirements. The network can support an unlimited number of C1000M units and offers a broad range of end-user configurable parameters. Designed for flexibility, the rugged C1000M can be operated in point-to-point, point-to-multipoint, or TDMA mode. In addition to operating as a master, slave, or store and forward repeater, any OEM module can also serve as a dual function slave/repeater.

SYSTEM MANAGEMENT

To simplify management of your C1000M system, Intuicom provides network-wide diagnostics and spectrum analysis tools for monitoring and optimizing system performance. Data transfer success rates, signal strength, and noise figures are among the many comprehensive performance parameters that can be monitored.



"BEST-IN-CLASS" RF PERFORMANCE

Employing secure, frequency hopping spread spectrum technology, the C1000M is inherently resistant to interference from other communications equipment.

Empowered with an ultra sensitive yet highly selective, digitally filtered RF receiver, the C1000M provides robust communication links with high data transfer accuracy rates.

When used in an Intuicom designed network, the C1000M delivers the maximum effective radiated output power allowable by the FCC for unlicensed operation -- the benefit of which is realized in exceptional RF propagation characteristics with up to 60 miles range (LOS).

With proven performance in dense RF environments, Intuicom's wireless networks power through the congestion to provide reliable data transport where other technologies fall short.

FEATURES

- 60+ mile range ("best-in-class" performance)
- 115.2Kbps throughput
- 100% data transfer accuracy
- Point-to-point, multipoint, or TDMA modes
- TTL compatible or RS232/RS485/RS422 interface
- Secure 900 MHz FHSS technology
- Adjustable 1W RF output
- Configurable as a master, slave, repeater, or slave/repeater
- Network-wide diagnostics
- 2.44" L x 2.75" W x 0.59" H
- 70 grams
- -40°C to +75°C operation
- Made in USA

To learn more about enabling wireless networking for your applications, please contact us at: info@intuicom.com or call (303) 449-4330

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GENERAL SPECIFICATIONS

Package Type	Board level, OEM, 3 hole PCB mounting
Size	2.75" x 2.44" x .59"
Weight	70 g
Operating Temperature	-40° C to +75° C
Connector Signals	
External Antenna	Right angle MCX
Data	10 pin PCB header
Diagnostics	3 pin proprietary
Input Voltage	6 to 30 VDC
Operating Modes	Master, Repeater, Slave, Slave/Repeater, Point-to-Point, Point-to-Multipoint, TDMA

WIRELESS TRANSCEIVER

Frequency Range	902 - 928 MHz
Transmitter	
Output Power	1 Watt (User Adjustable from 100mW to 1 W)
Range, Line of Sight	60 miles per link
Modulation	Spread Spectrum, GFSK
Occupied Bandwidth	230 KHz
Spreading Method	Frequency Hopping (FHSS)
Hopping Patterns	15 per band, 105 total, user selectable
Hopping Channels	50 to 112, user selectable
Hopping Bands	7, user selectable
Receiver	
Sensitivity	-108 dBm at 10 ⁻⁶ BER
Selectivity	20 dB at fc ± 230 KHz; 60 dB at fc ± 290 KHz
System Gain	140 dB exclusive of antennas
Data Transmission	
Error Detection	32 Bit CRC, retransmit on error
Data encryption	Substitution, dynamic key
Data Rate*	115.2 Kbps
Data Protocol (standard)	TTL or RS232/RS485/RS422
Power Consumption @12VDC	
Sleep	6 mA
Idle	21 mA
Receive	86 mA
Transmit (average)	550 mA (@ full 1W TX power)

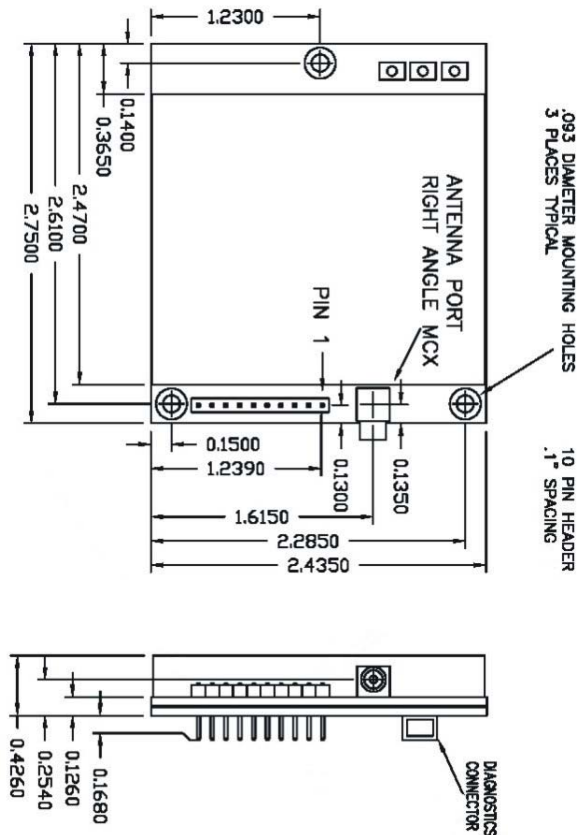
* Assumes 75% frequency availability, no repeater. Specifications subject to change without notice.

SOFTWARE

Network-wide Diagnostics	Included upon request
Spectrum Analyzer	Included upon request

ACCESSORIES

Antennas	Omni-directional & Yagi Antennas with various mounting options -- Call for details
Coaxial Cables	LMR400 & LMR250 in various lengths -- Call for details
Data/Programming Interface Cable	P/N ASC3610 FL (Mates to 10 pin module connector with 36" flying leads)
Diagnostics Cable	P/N ASC0409DC (Dual function RS232 programming and diagnostics cable; 36" cable with DB9 and 3 pin port mating connector)
Amplifier Kit	5 Watt bi-lateral amplifier (For military or licensed use only)



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