

Ask About Our  
**1.2 Mbps**  
 Version!

# C1000 $\mu$ Ethernet™

Long-range, Micro-sized FHSS Radio Modem



The C1000 $\mu$  Ethernet transceiver is available in two versions with data rates of 115Kbps (up to 60 mile range) and 1.2 Mbps (30 mile range). Measuring just 4.0" x 2.0" x 0.5" and weighing only 42g, the C1000 $\mu$  Ethernet is ideally suited for military/aerospace and industrial applications when size and weight are critical parameters. Compatible with the Intuicom EB-3 Plus and EB-6 Plus (enclosed models), the C1000 $\mu$  Ethernet is available with a mounted RJ-45 or an on-board header plus 2 serial ports for simplified integration in a variety of OEM products.

## APPLICATIONS

- Unmanned Vehicles
- SCADA Networks
- Remote Sensors
- Industrial Automation
- Security Systems
- Video & radars

## "BEST-IN-CLASS" RF PERFORMANCE

Employing frequency hopping spread spectrum technology with available 128 bit AES encryption, the C1000 $\mu$  Ethernet provides secure IP connectivity in point to point or multipoint network configurations.

Empowered with an ultra sensitive yet highly selective, digitally filtered RF receiver, the C1000 $\mu$  Ethernet provides robust communication links with high data transfer rates.

With proven performance in dense RF environments, Intuicom's wireless networks power through the congestion to provide long -range reliable data transport.

## CONFIGURATION & MANAGEMENT

Intuicom's embedded web-based setup makes getting up and running a straight-forward and simple process. Not only is the C1000 $\mu$  Ethernet easy to set-up, but Intuicom makes it simple to optimize the performance of each transceiver on the network after it has been installed in the field. An IP addressable embedded server hosts a dynamic web page that provides diagnostics, performance criteria and access to key parameters for on-demand remote configuration.



- Up to 60 mile range
- Up to 1.2 Mbps data rate (30 mile range)
- Point-to-point, multipoint modes
- Ethernet interface
- 2 serial ports for legacy devices
- 128 Bit AES encryption option
- Secure 900 MHz FHSS technology
- 1 Watt RF output
- Configurable as a master, slave, repeater, or slave/repeater
- Low power consumption
- 4.00" L x 2.00" W x 0.50" H
- Weight: 42 grams
- -40°C to +85°C operation
- Made in USA

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

**Intuicom**

# C1000 $\mu$ Ethernet

Long-range Micro-sized 115.2 kbps and 1.2 Mbps FHSS Radio Modem

## GENERAL SPECIFICATIONS

Size	4.00" x 2.00" x .50"
Weight	42 g
Operating Temperature	-40° C to +85° C
Connector Signals	
External Antenna	Right angle MMCX
PCB Interface	RJ-45 or dual Row 10 pin header; 2 mm c-c
Input Voltage	3.0 to 5.5 VDC
Operating Modes	Master, Repeater, Slave; Point-to-Point, Point-to-Multipoint
Construction and Mounting	Dual Sided SMT PCB with .093 mounting holes (4X)

## WIRELESS TRANSCEIVER

Frequency Range	902 - 928 MHz
Transmitter	
Output Power	1 Watt (User Adjustable from 5mW to 1 W)
Range, Line of Sight	60 miles (115 Kbps) / 30 miles (1.2 Mbps)
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	-106 dBm at 10 <sup>-6</sup> BER
Selectivity	20 dB at fc $\pm$ 230 KHz
System Gain	140 dB exclusive of antennas
Data Transmission	
Error Detection	32 Bit CRC, retransmit on error
Data encryption	Substitution, dynamic key; 128 bit AES optional
Data Rate*	56 to 115Kbps (standard version) 56 to 1.2Mbps (call for availability)
Data Protocol (standard)	Ethernet/IP
Power Consumption @3.3VDC	
Sleep	tbd
Idle	150 mA
Receive	250 mA
Transmit (average)	1000 mA (@ full 1W TX power)

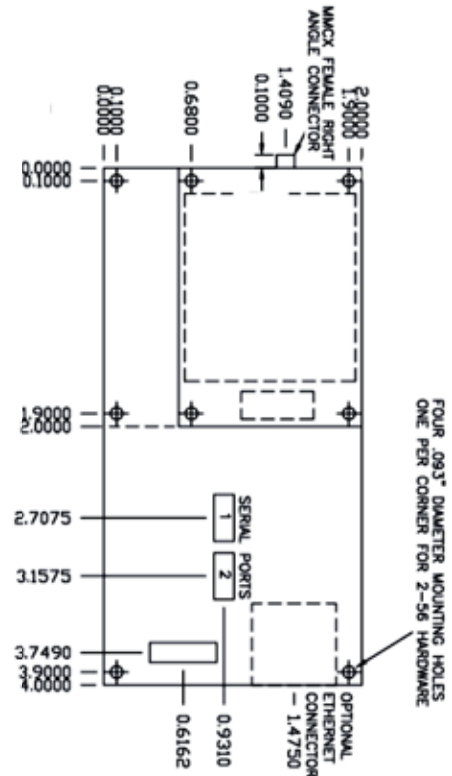
\* Assumes 75% frequency availability, no repeater. Specifications subject to change without notice.

## DEVELOPMENT KIT (optional)



## ACCESSORIES

Antennas	Omni-directional & Yagi Antennas with various mounting options -- Call for details
Coaxial Cables	- MMCX to SMA bulkhead - MMCX to N-type female bulkhead - Call for details
Interface Cable	6 foot RJ-45 cable
Amplifier Kit	5 Watt bi-lateral amplifier (For military or licensed use only)



INTUICOM RADIOS REQUIRE PROFESSIONAL INSTALLATION