

Communicator II

WIRELESS DATA TRANSCEIVER



OVERVIEW

The Communicator II is a high performance wireless data transceiver designed for industrial serial and serial to IP networks. The Communicator II enables long range wireless connectivity at high bandwidths for robust and secure wireless communications for a broad set of fixed and mobile applications.

FUNCTIONALITY & FLEXIBILITY

The Communicator II offers the capability and flexibility to meet a variety of wireless networking challenges. The Communicator II offers license-free operation in North America and many other locations around the world. Utilizing superior frequency hopping spread spectrum (FHSS) technology, the Communicator II provides long-range data transport with continuous throughput of up to 115 Kbps. Designed for functionality, the Communicator II offers the flexibility to provide point-to-point communications or more advanced multi-point and IP-bridged network applications. Robust and highly reliable performance is achieved through superior low signal performance. Low power consumption and user-definable operating parameters provide optimal performance for a wide variety of applications.

The Communicator II's rugged enclosure, extreme temperature range and broad scale of voltage inputs make it the clear choice for many harsh industrial environments.

KEY FEATURES

- License-free operation
- Data throughput up to 115.2 Kbaud
- Long range operation (60+ miles)
- Full duplex communications
- Ability to operate in different modes including bas station, repeater, slave and slave/repeater
- Low power consumption
- Network-wide diagnostics
- Rugged industrial enclosure

COMPLETE COMMUNICATION SYSTEM

A complete communication system lives Inside every Intuicom Wireless solution.

- Network Software Management
- Service and Support
- Exclusive Product and Software features
- Field proven reliability



GENERAL SPECIFICATIONS

Enclosure	Ruggedized extruded aluminum with rubber traction bumpers
Size	H: 53 mm (2.1i) x W: 167 mm (6.6i) x L: 105 mm (4.5i)
Weight	793 g (1.75 lbs.)
Temperature Operating Range	40° C to +75° C 100% full performance tested
Connectors/Signals	
External Antenna	N Type Female, Professional installation only
Data	DB9 (TXD, RXD, CTS, RTS, DTR, GND, Power), DCE
Diagnostic	DB9 (TXD, RXD, GND, Power), DCE
Power	2.1 mm x 5.5 mm jack
Input Voltage	6-30 VDC (900 MHz), 9.5-30 VDC (2.4 GHz)
Power Consumption (approx.)	
max RF output power setting	900 MHz at 12VDC: 2.4 GHz at 12VDC:
Sleep	5 mA 5 mA
Idle	21 mA 30 mA
Receive	86 mA 100 mA
Transmit (average)	250 mA 200 mA
Operating Modes	Point-to-Point, Point-to-Multipoint, TDMA, Base, Repeater, Slave, Slave/Repeater

SPECIFICATIONS

	900 MHz	2.4 GHz
Frequency Range	902-928 MHz -	2.4-2.4835 GHz
Transmitter		
Output Power	100 mW to 1 W (+30 dBm)	20 mW to 500 mW (+27dBm)
Range, Line of Sight	60 Miles	20 Miles
Modulation	Spread Spectrum, GFSK, 115.2 Kbps or 153.6 Kbps	Spread Spectrum, GFSK, 115.2 Kbps or 153.6 Kbps
Occupied Bandwidth	230 KHz	230 KHz
Spreading Method	Frequency Hopping	Frequency Hopping
Hopping Patterns	15 per band, 105 total, user selectable	15 per band, 105 total, user selectable
Hopping Channels	50 to 112, user selectable	75 to 80, user selectable
Hopping Bands	7, user selectable	3, user selectable
Receiver Sensitivity	-108 dBm at 10-6 BER; -110 dBm at 10-4 BER	-108 dBm at 10-6 BER; -110 dBm at 10-4 BER
Selectivity	20 dB at $f_c \pm 115$ KHz; 60 dB at $f_c \pm 145$ KHz	20 dB at $f_c \pm 115$ KHz; 60 dB at $f_c \pm 145$ KHz
System Gain	140 dB	137 dB
Data Transmission		
Error Detection	32 Bit CRC, retransmit on error	32 Bit CRC, retransmit on error
Data Encryption	Substitution, dynamic key	Substitution, dynamic key
Maximum Throughput	115.2 Kbps*	115.2 Kbps*
Data Interface	RS232	RS232



ITS/Traffic



Precision
Agriculture



Security



Industrial

Note: Specifications subject to change without notice.