

Unique 2 Watt narrow band wireless radio technology operating on UHF 450 to 470 MHz business band. The best trade off for speed, long range and low system cost. Monicor radios provide superior accuracy and coverage.

Long Range, covers several Miles Radius. Unlike repeater systems, the IC-20 does not cause throughput reduction for extended range. Site propagation analysis or site surveys are more demanding for other technologies than with UHF systems.

Lower System Cost. One Network Controller reaches up to 99 remote terminals. A single UHF controller gives you more coverage than you would get with systems needing access points or repeaters. Generally, as frequency increases, data transfer rates increase, but power and range decrease. Given reduced range, you must increase the number of such base stations or repeaters to match UHF range performance, resulting in higher system cost.

Fast 4800 bps with Data Integrity over the air. (Fast radio with 2 millisecond Tx/Rx turn on response time.) With optimized high-performance components, narrow band can effectively handle dozens of terminals with a single base station, and still provide sub second response time. The IC-20 sends up to 520 characters per second over the air, and with a modulation error detection combined with 16 bit CRC, assures successful data delivery. Economical 2400 bps radio transmission option available.



Flawless RS-232 Serial Data Communication. A unique validation system assures that no errors will result from broadcast interference. Monicor radios are highly reliable UHF narrow band transceivers, providing full RS-232 compatibility. RS-422 / RS-485 Multidrop capability. The port is fully buffered and has full flow control, either hardware or software, and can be set to any baud rate up to 19.2K.

FCC licensing enforces interference-free broadcasting. Monicor will help you obtain the site license. UHF RF systems have been successful due to FCC management of the radio spectrum, which controls geographic allocation of the frequency. Licensing is, in fact, one of the advantages of operating in the UHF band.

Ideal for a variety of applications. The IC-20 can be connected to any input/output device with an RS-232 interface: terminals, printers, bar code scanners, and scales are now networked with no burdensome cables.

Simple installation. Dependable, user-friendly technology provides uninterrupted operating ease. No software changes are required to remote DTE for most terminal equipment with the Point to Point option.

Added protection against lightning damage. Eliminating buried cables and replacing them with the small profile of the radio modem significantly reduces down time and service charges for your customers.

Friendly Technical Support (for customers big and small). Monicor provides design assistance for the proper integration into customer's equipment for optimum performance.

MODEL IC-20 RADIO MODEM

The IC-20 series of wireless radio modems from Monicor are long range, reliable UHF narrow band transceivers which provide flawless RS-232 serial data communications. With several miles coverage, this reliable reansceiver is easy to set up, operate and maintain. In addition, it's more economical than multiple access points or repeater systems. Discover the Monicor difference. Contact a Monicor Data Communication Specialist today.

Options

Link Network: When networked with two or more units, the Network Controller handles all data for all units. Each circuit or data path between a terminal and the host computer is fully buffered so that the RF-modems can transfer data across all circuits at once, while the host switches the controller port to one circuit at a time. The IC-20ME Network Controller polls the network for activity for up to 99 units on the network and responds immediately.

Point to Point: Provides a cost effective approach for cable elimination across a variety of applications. The system configuration performs like a hardwired link, in which no software changes are required for most applications.

Multidrop: Terminals with built in multidrop protocol will easily connect to this simple interface, providing truly portable access to a host without terminal and host reprogramming. This is accomplished by using the existing software and network protocol of the customer's system with all its error correction and data transfer characteristics. Monicor multidrop option is compatible with many terminals on the market. Traffic control systems, inplant multidrop networks, irrigation control systems and process control equipment are a few of the many applications using this option.

IC-20 SERIES RADIO MODEM

The IC-20 radio is a highly reliable 2 Watt UHF narrow band transceiver, providing flawless serial communication. Monicor products are manufactured in the USA and come with a on-year warranty. Additional service contracts are available.

General Features (Specifications differ with options)

Frequency	450-470 MHz, 406-420 MHz available
Turn-On Response Time	2 millisecond
Data Throughput	520 char/sec @ 4800 bps, 260 @ 2400 bps
Channels	1 channel/half duplex
Operating Temperature	-30 to 60 degrees C.
Storage Temperature	-30 to 70 degrees C.
Humidity	to 90% non condensing
Housing	Aluminum
Dimensions	3.7" x 7.5" x 1.9"
Weight	17 oz.
RF Connector	BNC
RS-232 Interface	DB-9
Supply Volts	7.5vDC
FCC Type Number	GES4BAIC-20
Message Transmission	Synchronous variable length X.25 packets error detection and correction

Receiver Features

Sensitivity	12 dB SINAD: >0.35uV
Frequency Stability	+/-5 PPM
Selectivity	>85 dB
Intermodulation	>60 dB
Spurious Rejection	>60 dB
Conducted Spurious Emissions	<-50 dbm
Noise Figure @ 25°C	<7.5db
Current Drain	65mA

Transmitter Features

RF Power Out	2 Watt maximum
Conducted Spurs	>-55 dbc
Frequency Stability	+/-5 PPM
Emission	14K4F1D/15K6F1D(4800)
Nominal Current Drain	1200mA

Accessories

6 dB Super Gain Omni Antenna
Power Divider (Splitter)
Lightning Arrester Kit

Passive Repeaters
Magnetic Mount Antenna
Feed Cable

Operating Information

Data is transferred synchronously over the radio link at 2400 or 4800 bps. Communication is over a single channel, so throughput depends on the length and frequency of messages for each remote unit. The PAD (Packet Assembly and Disassembly) interface provides full access to multiple portable units via the asynchronous RS-232 port, and the profile is configurable to match different types of terminal equipment.

