

Spread Spectrum Radio System

AX-991 MX-991

The Model AX/MX-991 Spread Spectrum Radio System provides reliable license free radio data communications between a single or multiple remote sites and a central monitoring station. The reliable operating range is 20 miles but can be extended using high gain antennas when there is clear line-of-site operation.

Features

- Range to 20 miles or more
- Low operating power
- Broad temperature operating range
- Multi-site capable UHF radio
- No FCC license requirements
- 2400 baud to 19.2K baud

Operation

Unique frequency hopping radio transmission technique provides high immunity to interference from other radio services. The packet acknowledgement protocol and 32 bit CRC error detection ensure that what is sent is identical to what is received. Using different station ID's multiple radio sites can be accessed from the master station with MicroMet Plus Software.

Yagi antennas and low loss coax cable connections can be used to extend the operating distance. For reliable operation, a line-of-site path between transmitting station and receiver sites is required.

Spread spectrum technology removes the requirement for FCC license and frequency allocation common when VHF or other UHF types of radio systems are used.

Operation can begin immediately without the time consuming FCC license requirements of other radio technologies.



Spread Spectrum Radio Systems provides reliable direct radio communications with no FCC license requirement.

Specifications

Range	0-20 Miles or more with Yagi
Operating Frequency	902 to 928 MHz (2.4 GHz Optional)
Modulation Type	Spread Spectrum , GFSK
Spreading Code	Frequency Hopping
Error Detection	32 Bit CRC
Hop Patterns	15 (User Selectable)
FCC Identifiers	KNY-DGR-115
Output Power	1 Watt (+30 dBm)
System Gain	140 dB
RS-232 Data Rate	2400 baud to 19.2K baud Asynchronous, Full Duplex RS-232 9 pin female.
Connector	Cables are supplied with radio.
Power Requirement	10.5 to 18.0 VDC 180 mA Average
Environment	-10 deg. to +50 deg. C

Typical system will include 2 each radio modem sets, 25 ft of low loss coax cable, a 3 ft pigtail cable, and 2 each multi-element yagi antennas for direct point to point communications.

In networked or point to multi-point systems, the central station yagi antenna will be replaced by an omni-direction gain antenna for communications to multiple locations in various directions.



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