

220 MHz

Alligator Communications

Model 2288

220 MHz Licensed MAS Radio



Features:

- Ethernet and RS-232 Interfaces Concurrently
- Telnet network management
- AES-256 Encryption with SHA256 key generation
- Robust 4GFSK modulation
- Automatic Frequency Calibration

Applications:

- SCADA Systems
- Utility Data Communications
- Oil & Gas Pipeline Monitoring
- Water Systems
- Distribution Automation

General Description

Alligator now offers the most secure and robust multiple address licensed radio in the industry. Featuring both Ethernet and RS-232 interfaces concurrently, it automatically encapsulates and encrypts any SCADA protocol on to a secure 4GFSK modulation format that is sent over a standard 5, 6.25, 12.5, 25 kHz or 50 kHz frequency channel. Frequency synthesis permits selection of any channel pair in the 215-240 MHz bands to ± 1 ppm stability.

Single unit with four modes of operation: Master, Polling Master, Repeater, and Remote. One unit backs up all four modes. Automatic frequency control keeps all remote radios phase locked to the master frequency. Several modes of network management including Telnet and web browser permit tight monitoring and control, totally transparent to primary data traffic. This makes Alligator the clear choice for MAS radio systems due to its superior flexibility and system transparency operations.



Alligator
Communications, Inc.

Model 2288 Remote Radio

Technical Specifications

TRANSMITTER

RF Output Power	0.6W to 5W
Impedance	50 Ohms
Frequency Range	215 MHz-240* MHz
Frequency Step Size	1 Hz
Frequency Stability	±1 ppm
Modulation	4GFSK
Symbol Rate	4800 Hz**
Data Rate	19200 bps
Maximum Frequency Deviation	2400 Hz**
Attack Time	<1 msec
Release Time	<0.5 msec
Bandwidth	5, 6.25, 12.5, 25, or 50 kHz**

RECEIVER

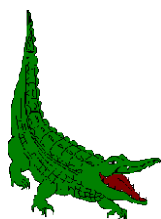
Input Sensitivity	-117 dBm at 10 ⁻⁶ BER
Impedance	50 Ohms
Frequency Range	215 MHz-240* MHz
Frequency Step Size	1 Hz
Frequency Accuracy	±1 ppm
Selectivity	-100 dB
Desensitization	-60 dB
Intermodulation	-75 dB (EIA)
Spurious Image Rejection	-80 dB
Bandwidth	5, 6.25, 12.5, 25, or 50 kHz**

GENERAL

Frequency	215 MHz-240* MHz
Input Voltage	10-30 Vdc
Current Consumption (at 13.8 Vdc)	
Receive Mode	<80 mA
Transmit (5W)	< 1.2 A
Data Rate	19200 bps
Connectors	
Antenna	Type N female
Power	2 Pin Captive Rectangular
Data (RS232)	DB9F
Data (10/100 Ethernet)	RJ45
FCC Certification	FCC ID JIL2288
Environment	
Temperature	-30°C to +60°C
Humidity	95% at 40°C
Dimensions	6.75" x 1.5" x 5.75"
Weight	2 pounds

*Other frequency bands available on special order

**Other bandwidths available on special order by changing symbol rate and frequency deviation



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