

150 MHz

Alligator Communications

Model 2188

150 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 6.25 or 12.5 kHz channel. Frequency synthesis permits selection of any channel pair in the 150-174 MHz bands to ± 1 ppm stability.

Single unit with three modes of operation: Master, Polling Master, or Remote. One unit backs up all three 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 2188 Radio

Technical Specifications

TRANSMITTER

| | |
|-----------------------------|--------------------|
| RF Output Power | 1, 2, or 3W (max.) |
| Impedance | 50 Ohms |
| Frequency Range | 150-174 MHz |
| Frequency Step Size | 1 Hz |
| Frequency Stability | ±1 ppm |
| Modulation | 4GFSK |
| Maximum Frequency Deviation | 2400 Hz** |
| Attack Time | <1 msec |
| Release Time | <0.5 msec |
| Bandwidth | 6.25 or 12.5 kHz** |

RECEIVER

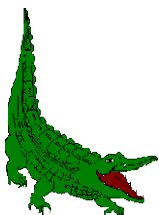
| | |
|--------------------------|----------------------------------|
| Input Sensitivity | -117 dBm at 10 ⁻⁶ BER |
| Impedance | 50 Ohms |
| Frequency Range | 150-174* MHz |
| Frequency Step Size | 1 Hz |
| Frequency Accuracy | ±1 ppm |
| Selectivity | -100 dB |
| Desensitization | -60 dB |
| Intermodulation | -75 dB (EIA) |
| Spurious Image Rejection | -80 dB |
| Bandwidth | 6.25 or 12.5 kHz** |

GENERAL

| | |
|-----------------------------------|---------------------------|
| Frequency | 150-174* MHz |
| Input Voltage | 12-24 Vdc |
| Current Consumption (at 13.8 Vdc) | |
| Receive Mode | <80 mA |
| Transmit (5W) | < 1.2 A |
| Data Rate | |
| 6.25 kHz channel | 4800 bps |
| 12.5 kHz channel | 9600 bps |
| Connectors | |
| Antenna | Type N female |
| Power | 2 Pin Captive Rectangular |
| Data (RS232) | DB9F |
| Data (10/100 Ethernet) | RJ45 |
| FCC Certification | FCC ID JIL2188 |
| 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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