

# 450 MHz

## Alligator Communications Model 1888B

### 450 MHz Licensed MAS Radio



#### Features:

- Ethernet and RS-232 Interfaces Concurrently
- Zero Frequency Offset
- Telnet network management
- AES-256 Encryption with SHA256 key generation
- Robust 4GFSK modulation
- Automatic Level Control
- Self-Diagnostics

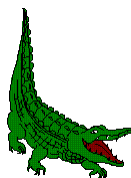
#### Applications:

- 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 12.5 kHz frequency channel. Frequency synthesis permits selection of any channel pair in the 450 MHz band to  $\pm 1$  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 1888B Remote Radio

## Technical Specifications

### TRANSMITTER

RF Output Power	0.5W to 5W
Impedance	50 Ohms
Frequency Range	400 MHz-520* MHz
Frequency Step Size	1 Hz
Frequency Stability	±1 ppm
Modulation	4GFSK
Symbol Rate	2400 Hz**
Data Rate	9600 bps
Maximum Frequency Deviation	2400 Hz**
Bandwidth	12.5 kHz**

### RECEIVER

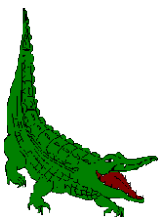
Input Sensitivity	-110 dBm at 10 <sup>-6</sup> BER
Impedance	50 Ohms
Frequency Range	400 MHz-520* MHz
Frequency Step Size	1 Hz
Frequency Accuracy	±1 ppm
Modulation	4GFSK
Symbol Rate	2400 Hz**
Data Rate	9600 bps
Bandwidth	12.5 kHz**

### GENERAL

Frequency	400 MHz-520* MHz
Input Voltage	0-30 Vdc
Current Consumption	
Receive Mode	< 100 mA
Transmit (5W)	< 1.7 A
Data Rate	9600 bps
Connectors	
Antenna	Type N female
Power	2 Pin Captive Rectangular
Data (RS232)	DB9F
Data (10/100 Ethernet)	RJ45
Environment	
Temperature	-30°C to +60°C
Humidity	95% at 40°C
Dimensions	6.75" x 1.5" x 5.5"
Weight	2 pounds
FCC Rules	Parts 90 & 15
FCC Identifier	JIL1888B

\*Other frequency bands available on special order

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



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