

Integra-TR

Integrated Wireless Modems

132-174 MHZ
380-512 MHZ



TCP/IP

Security & Defense

OIL & GAS

SCADA & TELEMETRY

WIRELESS DATA COMMUNICATION

Remote Monitoring

INDUSTRIAL AUTOMATION

WATER & WASTEWATER

ELECTRIC UTILITIES

The Dataradio Integra-TR from CalAmp provides advanced features without complicated system setup. With up to 5W output in UHF & VHF, the Integra-TR offers reliable data communications over an extended range.

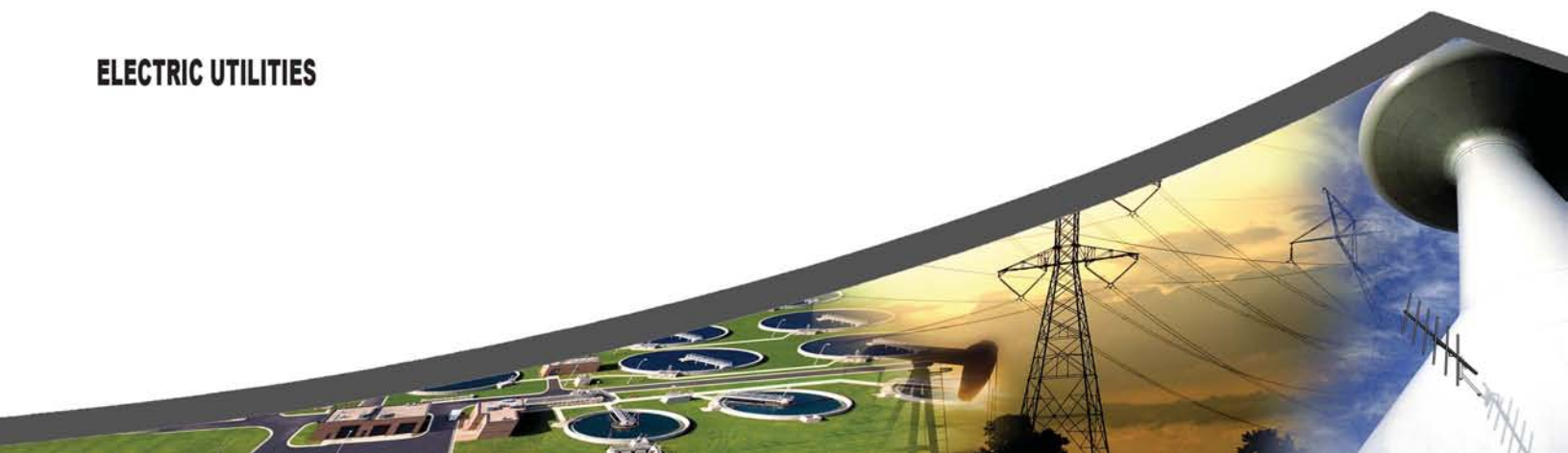
Virtually real-time data is transferred through this PC programmable, transparent modem with CWID for identification and CSMA to minimize retries and reduce channel interference. Get up to 19.2 kbps error-free data over-the-air.

Data-activated transmit [DOX]. Automatically activates the transmitter in the presence of data without needing an RTS handshake from terminal equipment. The Integra-TR also supports CTS flow control when the terminal rate exceeds the network rate.

No dribble bits. The Integra-TR prevents transmission of any extraneous data bits to the terminal device, making Integra-TR the perfect choice when working with protocols that cannot tolerate extra data bits.

Remote Online Diagnostics. Monitor and maintain your communications link. Power, temperature, voltage, signal strength, antenna/feedline condition, and data decode performance are transmitted without application interruption.

Quality and Service Commitment. The Integra-TR comes standard with our 2-year warranty and the quality you need for your critical RF networking needs.

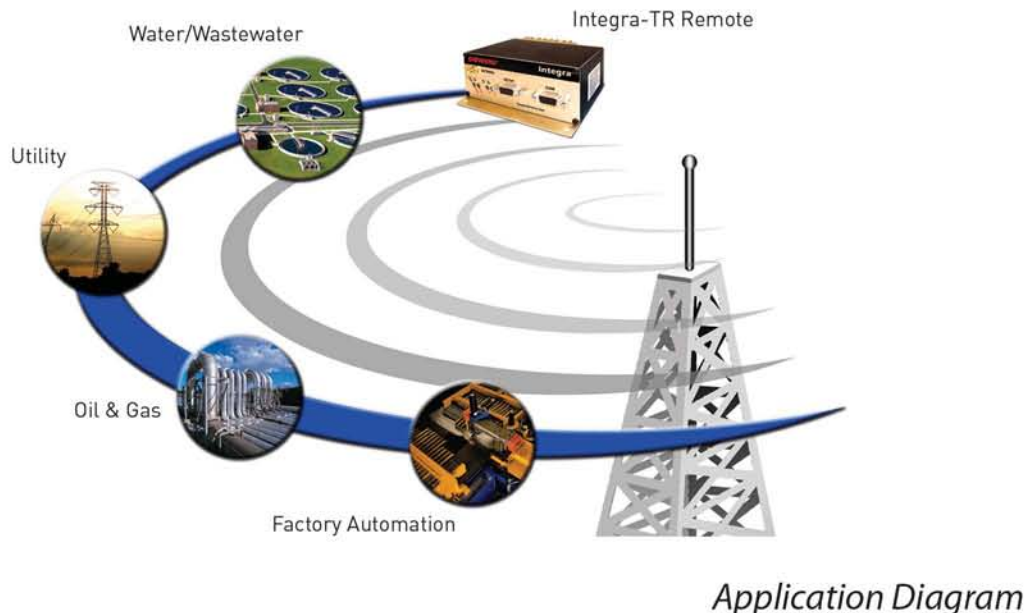


**COM AND SETUP
DE-9F CONNECTOR**

Pin	Description
1	DCD:Data Carrier Detect
2	RXD:Receive Data
3	TXD:Transmit Data
4	DTR:Data Terminal Ready
5	Ground
6	DSR:Data Set Ready
7	RTS:Request to Send
8	CTS:Clear to Send
9	Not Used

**POWER - I/O
SNAP AND LOCK 4-PIN CONNECTOR**

Pin	Description
1	+13.3 VDC (Red)
2	Ground (Black)
3	Analog In / Digital Out 1 (Green)
4	Analog In / Digital Out 2 (White)



Application Diagram

Specifications

GENERAL

Frequency Range

VHF: 132-174 MHz
UHF: 380-403, 403-512 MHz

Channel Bandwidth

6.25, 12.5 or 25 KHz models

Size

4.5 x 2.4 x .475 in.

Weight

1.60 lbs.

Operating Temperature

-30°C to +60°C

Supply Voltage

10-16 VDC

Current Drain @ 13.3 VDC

Less than 220 mA (Rx); Less than 2.6 A (Tx)

Cold Start

4 sec

Mounting Options

Flat surface, DIN-rail

Approvals and Certifications

FCC, IC, UL

Emission Designators

6K00F1D (6.25 KHz)
9K30F1D, 15K3F1D (12.5, 25 KHz)

TRANSMITTER

RF Power Output

1-5 W software adjustable

Spurious and Harmonics

Less than -36 dBm (-73 dBc)

Frequency Tolerance

VHF: 2.5 PPM @ 12.5 KHz; 1.0 PPM @ 6.25 KHz
UHF: 1.5 PPM @ 12.5 KHz; 0.5 PPM @ 6.25 KHz

FM Hum and Noise

Less than -45 dB @ 25 KHz

Duty Cycle

50% max transmit; Extended option available

RECEIVER

Sensitivity

0.35 µV for 12 dB SINAD

Selectivity

>70 dB @ 25 KHz
>60 dB @ 12.5 KHz
>40 dB @ 6.25 KHz

Intermodulation

>70 dB

Spurious Rejection

>70 dB

Conducted Spurious

Less than -57 dBm

MODEM

Operating Mode

Simplex or Half-duplex

Data Rates

19200, 9600, 4800 bps @ 25 KHz
9600, 4800 bps @ 12.5 KHz
4800, 2400 bps @ 6.25 KHz

Modulation

DRCMSK

RTS/CTS Delay

4 ms

Bit Error Rate (BER)

1 x 10⁻⁶ at .35 µV min. / -116 dBm
1 x 10⁻⁶ at 1.4 µV min. / -104 dBm
1 x 10⁻⁶ at 1.0 µV min. / -107 dBm
1 x 10⁻⁶ at 2.3 µV min. / -100 dBm



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