



# Integra-TR™

Serial Radio Modem for Licensed Spectrum

136-162 MHz | 148-174 MHz | 406.1-440 MHz | 440-476 MHz



## EXPERIENCE THE ADVANTAGE

- Up to 19.2 kbps error-free data
- Separate application and setup/diagnostics ports
- 1-5 Watts operation, software selectable
- Diagnostic output supports OPC-enabled diagnostics feature
- Full application transparency
- Extended temperature range for harsh environments

## RUGGED CONNECTIVITY FOR REMOTE MONITORING APPLICATIONS

The Integra-TR from CalAmp provides advanced features without complicated system setup. Available for UHF and 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.

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. The Integra-TR also prevents transmission of any extraneous data bits to the terminal device, making it 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.

# INTEGRA-TR SPECIFICATIONS

## GENERAL

Frequency Range	VHF: 136-162 MHz, 148-174 MHz UHF: 406.1-440 MHz, 440-476 MHz
Channel Bandwidth	12.5 kHz, 25 kHz
Modes of Operation	Simplex, Half-Duplex
Modulation	DRCMSK
Certifications	FCC, IC

## RECEIVER

BER @ $1 \times 10^{-6}$	
12.5 kHz	-104 dBm @ 4.8 or 9.6 kbps
25 kHz	-107 dBm @ 4.8 or 9.6 kbps, -100 dBm @ 19.2 kbps
Adjacent Channel	> 65 dB @ 25 kHz; > 55 dB @ 12.5 kHz
FM Hum and Noise	< -45 dB max
Conducted Spurious	< -57 dBm

## TRANSMITTER

Frequency Stability	1.5 ppm
Carrier Output Power	1-5 Watts Adjustable
Output Impedance	50 $\Omega$
Duty Cycle	50% Max, 30 Seconds (extended Tx time with cooling fan option)
Spurious and Harmonics	-20 dBm

## ELECTRICAL

Tx Current	< 2.6A @ 13.3V
Rx Current	< 270mA @ 13.3V
Primary Power	10-16 VDC

## MECHANICAL/ENVIRONMENTAL

Nominal Dimensions	4.50 W x 2.4 H x 4.75" D, (11.4 x 6.1 x 12.1 cm)
Shipping Weight	1.6 lbs, (0.73 kg)
Operating Temperature	-30° to +60° C

## INTERFACES

COM, SETUP	(2) Serial RS-232 DB-9
Antenna	SMA Female (Tx/Rx)
LEDs	4 - tri-color status

### About CalAmp

CalAmp Corp. (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical market applications and customers. CalAmp's extensive portfolio of intelligent communications devices, robust and scalable cloud service platform, and targeted software applications streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring and efficiently reporting business critical data and desired intelligence from high-value remote assets. For more information, please visit [www.calamp.com](http://www.calamp.com).

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