

TCP/IP

Security & Defense**OIL & GAS****SCADA & TELEMETRY****WIRELESS DATA COMMUNICATION**

Remote Monitoring

INDUSTRIAL AUTOMATION

WATER & WASTEWATER**ELECTRIC UTILITIES**

TSLM

Wireless Radio Modem

UHF 406 - 470 MHz

VHF 137 - 174 MHz



The TSLM integrated wireless radio modem provides the data communications backbone for your system's VHF or UHF RF network. The small, versatile packaging allows easy integration into your remote communications station with standard RS-232 connectivity while the DSP-based modem provides fast data throughput.

Diagnostics - The TSLM was designed to provide the diagnostics you depend on from Dataradio wireless modems that monitor and maintain critical system statistics. User programming gives each TSLM a unique programming ID to allow diagnostic reporting both locally and over-the-air from any remote location.

Front Panel LEDs - LEDs indicate transmit, receive and power functions. Windows®-based Field Programming Software provides a familiar interface to TSLM programming and diagnostics setup, monitoring and maintenance features.

Compatibility and Economy - The TSLM is based on Dataradio's T-96SR platform providing for broader system design. The T-96SR is the perfect choice for Master and Base equipment with the TSLM working as remote units.

Flexibility - The TSLM is user programmable for RTS/CTS or DOX (Transmit Data Activation Mode) giving you the flexibility to program units to operate with your existing infrastructure.

Quality and Service Commitment - Of course, the TSLM comes standard with our 1-year warranty and the quality you need in your critical RF networking needs.

TSLM Specifications

General

Frequency Range	VHF: 137-162, 150-174 MHz, UHF: 406 - 422 MHz, 414 - 430 MHz, 450 - 470 MHz
Channel Bandwidth	12.5 kHz
Approvals	FCC, IC, ETSI, FM/CSA
Emission Designators	9K60F1D, 10K0F1D
Current Drain	Tx (@ 12.5 Vdc/5W): 1700 mA max (VHF), Rx (@ 12.5 Vdc): 165 mA max (VHF), 170 mA max (UHF)
Frequency Tolerance	1.0 ppm
Operating Voltage	6-15 VDC
Operating Temperature	-30°C to +60°C
Humidity	0 - 95% (40° non-condensing)
Shipping Weight	8.0 oz. max
Operating Mode	Simplex or half-duplex
RF Connector	BNC female
Data I/O Connector	DE-15 female
Front Panel Indicators	Pwr, Rx/Tx
Timeout Timer	Variable 0-120 sec. switchable on/off
Diagnostics	Supply voltage, Internal Temperature RSSI (in dBm), Regulated 5V or 3.3 Vdc line, Internal Temperature RSSI (in dBm)
Cold Start	100 mS max

Modem

Data rate (PC programmable)	4.8, 9.6 kbps
Modulation	DGFSK
Signal Level	EIA RS-232C
Data Format	Transparent asynchronous serial
Word Length	7 or 8 bit words, 1 or 2 stop bits
Parity	Even, Odd, None
Handshake	RTS-CTS
RTS/CTS Delay	30 ms (4.8 kbps), 20 ms (9.6 kbps)
DOX	Data Activation Transmit Mode
Bit error rate - 9.6 kbps	<1 x 10 ⁻⁶ @ -107 dBm

RECEIVER

Receive Operation	User programmable
Adjacent Channel Rejection	>60 dB
Spurious & Image Rejection	>70 dB
Intermodulation Rejection	>70 dB

TRANSMITTER

Transmit Operation	User programmable
RF Output Power	Adjustable 0.50 Watt to 5 Watts ($\pm 20\%$ @ 12.5 Vdc and 25°C) or 0.10 Watt to 2 Watts ($\pm 20\%$ @ 7.20 Vdc and 25°C)
Duty Cycle	50% @ 25°C (30 sec. max. transmit)

Mechanical Layout

