



<b>Radio Name</b>	<b>TDL 450L Radio</b>
Frequency Bands	390 - 430 MHz 430 - 470 MHz
Channel spacing	Synthesized 12.5 kHz resolution, +/- 1ppm stability
Number of Channels	
Number of Networks	N/A
RF Power Select	Programmable
Power output	0.1 W to 4.0 W (where allowed)
Sensitivity	-110 dBm BER 10 <sup>5</sup>
Adjacent Channel Selectivity	
Access Point for 2 Way Data	No
License Required	Yes
<b>General</b>	
DTE - DCE Interface	1 x 3 wire RS232, 115.2 kbps maximum
Keyboard and display	LCD display, 16 characters by 2 rows On/Off button 5 navigation buttons
	Modem power / status indicators
Dimensions (L x W x D)	8.89 cm x 4. 6 cm x 16.0 cm (3.5 in x 1.809 in x 6.3 in)
Weight	0.69 kg (1.52 lb)
<b>Power</b>	
External	9.0 to 30.0 V DC, 2 Amp maximum
Internal battery	
During TX (nominal)	7 W nominal @ 12.0 V DC, 1 W RF output
During RX (nominal)	0.6W nominal @ 12 V DC
<b>Antenna</b>	External 50 ohm, BNC
<b>Modes of Operation</b>	
Base	Yes
Rover	Yes
Repeater	Yes
Rebroadcaster	Yes, with Cellular device connected
<b>Number of Repeaters Supported in a Network</b>	

## Modem Specifications

RF Modulation	Gaussian Minimum Shift Keying (GMSK) or (FSK)
Link Rate / Modulation	19200 bps / 4 level FSK 9600 bps / 4 level FSK 19200 bps / GMSK 16000 bps / GMSK 9600 bps / GMSK 8000 bps / GMSK 4800 bps / GMSK
Link Protocols	Transparent EOT/EOC, Packet-switched, Trimble®, TT450S (HW), SATEL®
Forward Error Correction	Yes
Serial Port	

## Environmental Specifications

Operating Temperature	
Transmitting	-40 °C to +85 °C (-40 °F to +185 °F)
Receiving	-40 °C to +65 °C (-40 °F to +149 °F)
Storage Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Vibration / Shock	MIL/STD 810F
Humidity / Enclosure	IP 67

## Connections

Power	5 pin LEMO #1 shell
Data	
Antenna	5 Ohm, TNC Female
Ethernet	
Serial	
Bluetooth	

## Mount

## Operational Range

Typical
Optimal

## Configuration

## Type Certification

All models are type accepted and certified for operation in the U.S., Canada, Australia, New Zealand, Russia and Europe. For detailed information concerning your country's type certification, please contact your local sales representative

## Notes

*Before operating this modem, users are legally required to obtain frequency licenses as required by the country of use*

*Only one frequency band per radio*

*Only one channel spacing per radio*

*Use the same frequency for all modems in the same wireless network*

*Range varies with terrain and operational conditions*

*Power consumption and battery life depend on the broadcast information content and wireless data rate (e.g. CMR versus RTCM SC-104 Ver 2.x packets at 1 Hz epoch rates).*

*Specifications subject to change without notice.*

*© 2008, Trimble Navigation Limited. All rights reserved. Trimble and the Globe & Triangle logo are trademarks of Trimble Navigation Limited, registered in the United States and in other countries. TRIMTALK is a trademark of Trimble Navigation Limited. All other trademarks are the property of their respective owners. PN 022482-1555*

## **Trimble Heavy and Highway Business Area**

5475 Kellenburger Road  
Dayton, Ohio 45424  
USA  
800-538-7800 (Toll Free)  
+1-937-245-5154 Phone  
+1-937-233-9441 Fax  
[www.trimble.com](http://www.trimble.com)

## **Trimble Authorized Distribution Partner**