



TRICOM
RESEARCH, INC.

TCR-U/L-25

The **TCR-U/L-25** evolved from the performance proven **TCR-MBA-50 WB** to meet the demands for range extension and high frequency operation (L-Band) of modern handheld and manpack transceivers. The amplifier supports Wideband Networking Waveforms including SRW and ANW2C as well as UHF SATCOM.

The **TCR-U/L-25** shares the same form factor, mounting and cable interfaces as the TCR-MBA-50 WB allowing for flexible installation configurations of vehicular and base station applications where conventional narrowband and wideband communications networks are required.

The **TCR-U/L-25** also shares the same simple three button user interface and dimmable front panel display as its predecessor to select the appropriate frequency band with LNA turned ON or bypassed; the amplified signal is automatically routed to the applicable antenna port for the frequency band selected.



FEATURES

- **2 Dedicated Antenna Ports, one for L-Band and one for UHF frequencies**
- **Supports ANW2C and SRW Wideband Networking Modes as well as UHF SATCOM**
- **Compatible with AN/PRC-152A and AN/PRC-117G and any transceiver operating in the 225-450 MHz, 1250-1450 MHz and 1750-1850 MHz frequency bands**
- **Rugged, Compact and Efficient – 2.5” H x 3.5” W x 8.15” D including connectors**
- **Natural Convection Cooling**
- **Full Function RS-232 or USB Remote Control**
- **Flexible mounting configurations to include drop in replacement for the TCR-MBA-50 WB**

TRANSMIT SPECIFICATIONS

UHF WB / SAT OPERATION

Frequency range UHF WB	225-450 MHz with automatic frequency detection
Band selection	Automatic
Switching speed	ANW2C, SRW, JITC DAMA, IW, aSCM compatible
RF power input	1-5 Watts (2 Watts typical)
RF power output	25 W Avg

L-BAND WB OPERATION

Frequency range	1250-1390 MHz (L1) and 1750-1850 MHz (L2) with automatic frequency detection
Band selection	Automatic
RF power input	1-5 Watts (2 Watts typical)
RF power output	25 W Avg

SATCOM MODE

Frequency range	292-318 MHz
RF power input	1-5 Watts (2 Watts typical)
RF power output	25 Watts

RECEIVE SPECIFICATIONS

UHF WB / SATCOM OPERATION

Frequency range	225-450 MHz
Noise figure	3.75 dB typical
Receive gain	6 dB typical

L-BAND WB OPERATION

Frequency range	1250-1390 MHz (L1) and 1750-1850 MHz (L2)
Insertion loss	<3.5 dB (LNA bypass)
Noise figure	3.75 dB typical
Receive Gain	6 dB typical

BYPASS OPERATION

Insertion loss	<3.5 dB (LNA bypass)
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GENERAL SPECIFICATIONS

Immersion	1 meter
Shock/Vibration	MIL-STD-810G for tracked and wheeled vehicles
Power Input	28 VDC (meets MIL-STD-1275)
RADIO Connector	TNC female (optional BNC female)
UHF Antenna Connector	TNC female (optional BNC female)
L-BND Antenna Connector	TNC female (optional BNC female)
DC Connector	MS3112E10-6P
Auxiliary Connector	Optional RS-232 Cable (PN 77500-00390) Optional USB Cable (PN 77500-00391)
High Temperature	High temperature indication & fold back
DC Off	Routes radio connector to L-BAND antenna connector
Operating Temperature	-30 C to +60
Cooling	Natural convection
External Finish	Black anodize, optional desert tan or olive drab CARC
Dimensions	2.5" H x 3.5" W x 8.15" D (including connectors)
Weight	5.2 Lbs