

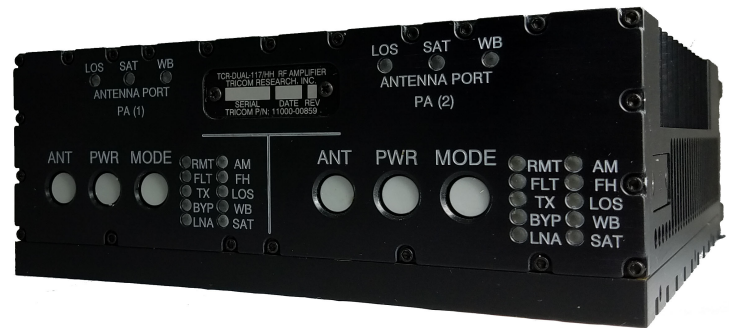
TRICOM
RESEARCH, INC.

TCR-MBA-50-WB-Dual2

DUAL WIDEBAND/MULTIBAND RF AMPLIFIER

The **TCR-MBA-50-WB-Dual2** is a highly integrated dual RF Power Amplifier (PA) and switching matrix based on the field-proven TCR-MBA-50-WB amplifier.

The **TCR-MBA-50-WB-Dual2** provides a space efficient drop in solution for multi radio/amplifier configurations that normally would require external patch panels or multiple RF switches. With 3 dedicated connectors for each Handheld radio connector routed through the dual PAs to 3 antenna connectors installation and cabling is straightforward and logical.



The **TCR-MBA-50-WB-Dual2** uses the familiar front panel amplifier controls to automatically route the proper signal to the proper antenna based on the operating mode of the PAs. In addition, RF bypass paths are included for operation in L band and for failsafe operation.

The **TCR-MBA-50-WB-Dual2** is designed to support modern Handheld Transceivers. The amplifier supports emerging Wideband Networking Waveforms including SRW and ANW2, as well as legacy Narrowband Waveforms such as IW, DAMA, SINGARS and HAVEQUICK. Additionally, the amplifier integrates seamlessly into systems using new Special Communications Modes in both LOS and SATCOM.

Part # 11000-00862

FEATURES

- 3 Dedicated Antenna Ports – Wideband Networking, SATCOM, and Line-of-Sight (LOS)
- Wideband Networking and Narrowband Operation
- ANW2, SRW, DAMA, IW, HAVEQUICK, SINGARS and Special Communications Modes
- Compatible with AN/PRC-152A, AN/PSC-5, AN/PRC-148 or any Transceiver operating in the 30-512 MHz frequency band
- Rugged, Compact, and Efficient
- Natural Convection Cooling
- Full Function USB Remote Control
- Flexible mounting configurations

TRANSMIT SPECIFICATIONS (per channel)

WB MODE (ANW2/SRW)

Frequency range
RF power input
RF power output

WB PERFORMANCE

225-450 MHz
2-10 Watts (20W without damage)
Commercial Vehicle (13.5 VDC 5.5 A max): 20 Watts Peak
Military Vehicle (28 VDC 6.8 A max): 25 Watts Avg

SATCOM MODE

Frequency range
Switching speed
RF power input
RF power output

SATCOM PERFORMANCE

292-318 MHz
JITC DAMA, IW, ASCM compatible
2-10 Watts (20W without damage)
Commercial Vehicle (13.5 VDC 5.5 A max): 10, 15, 25 Watts
Military Vehicle (28 VDC 6.8 A max): 10, 15, 25, 35, 50 Watts

LOS MODE

Frequency range
Modulation
RF power input
RF power output

LOS PERFORMANCE

30-512 MHz with Automatic Frequency Detection
AM, FM or PSK, AM/FM Frequency Hopping, i/ASCM compatible
2-10 Watts (20W without damage)
Commercial Vehicle (13.5 VDC 5.5 A max): 25 Watts
Military Vehicle (28 VDC 6.8 A max): 25, 50 Watts

RECEIVE SPECIFICATIONS (per channel)

WB Mode

Frequency range
Insertion loss

WB PERFORMANCE

225-450 MHz with co-site filtering
<4 dB

SATCOM MODE

Frequency range
Noise figure

SATCOM PERFORMANCE

242-268 MHz with co-site filtering
4.0 dB Typical
10 dB Typical or LNA bypass mode

Receive Gain

LOS MODE
Frequency range
Insertion loss

LOS PERFORMANCE

30-512 MHz
< 4 dB

GENERAL SPECIFICATIONS

RF Bypass	30 MHz – 2 GHz, 1 dB typical
Immersion	1 meter
RF Connectors	TNC/BNC female (IP67 rated without cap)
DC Connector High	DSUB 5 + 2
Temperature	High temperature indication & fold back
DC Off	Handheld bypass
Operating Temperature	-30 C to +60 C
Cooling	Natural convection
External Finish	Black anodize, optional desert tan or olive drab CARC
Dimensions*	2.7" H x 7" W x 9.4" D (approx.)
Weight*	10.5 lbs.

*based on options – other mounting, heatsink and RF connections available