



**TRICOM**  
RESEARCH, INC.

TCR-MBA-75

## 75 WATT MULTIBAND RF AMPLIFIER

The TCR-MBA-75 is a JITC DAMA Certified 75 Watt Remote Multiband RF Power Amplifier providing transmit and receive amplification across the 30-512 MHz band.

The TCR-MBA-75 is suitable for vehicular, airborne, maritime or fixed station applications and is compatible with manpack and handheld multiband military radios.

The Amplifier is weather-proof and may be remotely located near the antenna for optimum performance. The Bias-Tee II, which provides remote control of the amplifier functions, is connected to the Amplifier via a single coax cable.

The Bias-Tee II provides remote control of the Transmit Power Level, LNA operation, Bypass Capability, and selection of SATCOM, LOS, and Frequency Hopping modes of operation. An RS-232 port provides the ability to remote the operation of the system from a PC.

### FEATURES:

- MULTIBAND Operation with Dedicated SATCOM and LOS Ports
- SATCOM COSITE Elimination
- 35/50/75 Watts Transmit Power
- Battle Proven with >10,000 MRAP Installations
- Rugged, Compact and Efficient Design
- AM-SAT-50 and RAMP-75 Common Form Factor and Mounting Scheme
- Simple Front Panel Operator Controls
- DAMA Certified, HaveQuick and SINCGARS compatible (IW compatible version available upon request)



## TRANSMIT SPECIFICATIONS

LOS MODE	LOS PERFORMANCE
Frequency range	30-512 MHz with Automatic Frequency Detection
Frequency Hopping	HaveQuick and SINCGARS Frequency Hopping Compliant
RF Power Input	5 Watts typical (2-20 Watts)
RF Power Output	50 Watts FM/PEP
Harmonics	-60 dBc
Transmit Duty Cycle	Continuous

  

SATCOM MODE	SATCOM PERFORMANCE
Frequency Range	290-318 MHz
Modulation Format	FM/MPSK 5 or 25 KHz Bandwidth
COSITE suppression	30 dB
Switching speed	DAMA Certified
RF power Input	5 Watts typical (2-20 Watts)
RF power output	35/50/75 Watts
Harmonics	-60 dBc
Transmit duty cycle	Continuous

## RECEIVE SPECIFICATIONS

LOS MODE	LOS PERFORMANCE
Frequency range	30-512 MHz
Insertion Loss	1.5 dB

  

SATCOM MODE	SATCOM PERFORMANCE
Frequency Range	242-270 MHz
Noise Figure	3.5 dB typical
Receive Gain	10 dB with LNA Bypass Capability

## GENERAL SPECIFICATIONS

Operator Controls	SATCOM, LOS, AM, FREQ HOP, TX Power Level, Bypass (off mode), LNA On/Off
DC Input Power	24-28 VDC, 13 Amps typical Transmit, 500 mA typical Receive
Front Panel Indicators	DC PWR, LOS, SATCOM, F HOP, TX, VSWR, TEMP, Comm Fault
SATCOM/LOS Connector	Type N
Radio Connector	Type N
DC Power Connector	MS3102E-14S-5P
Input/Output VSWR	1.5:1
VSWR Mismatch	High VSWR Indication
High Temperature	High Temperature Indication
DC off Bypass	Routes Radio Connector to LOS Connector
Operating Temperature	-30 C to +60
Cooling	Natural Convection
Dimensions	3" H x 6" W x 12" D
Weight	12 lbs
Remote I/F	RS-232 Remote Control of Bias-Tee II functions