



**TRICOM**  
**RESEARCH, INC.**

**TCR-MBA-75 (NBT)**

## 75 WATT MULTIBAND RF AMPLIFIER

The TCR-MBA-75 (NBT) is a Multiband RF Power Amplifier using the same battle proven technology and form factor as Tricom's TCR-MBA-75.

In response to customer requests, the requirement to use a remote control head (Bias Tee II) has been eliminated and instead the operator controls have been reduced to four rugged pushbuttons on the amplifier's front panel. These controls, with the expanded LED indicators, provide system status and operating conditions and greatly reduce the likelihood of damaged operating switches. The Bias Tee I can be used to remotely power the amplifier at the antenna. (See manual for setup and advanced operation)



The installation of the amplifier is also simplified with less cabling and a common connector interface panel. Operation is simple and straightforward and all performance specifications are identical to the BiasTee equipped system including environmental electrical, and physical mounting.

Part Number: 11000-00678

### FEATURES

- MULTIBAND Operation with Dedicated SATCOM and LOS Ports
- SATCOM COSITE Elimination
- 35/50/75 Watts Transmit Power
- Battle Proven with >7,200 MRAP Installations
- Rugged, Compact and Efficient Design
- AM-SAT-50 and Common Form Factor and Mounting scheme
- Simple Front Panel Operator Controls
- DAMA Certified, HaveQuick, SINCGARS and IW compatible



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## TRANSMIT SPECIFICATIONS

LOS MODE	LOS PERFORMANCE
Frequency range	30-512 MHz with Automatic Frequency Detection
Frequency Hopping	HaveQuick, SINGARS Frequency Hopping and IW Compliant
RF Power Input	5 Watts typical (2-20 Watts)
RF Power output	50 Watts FM/PEP
Harmonics	-60 dBc
SATCOM MODE	SATCOM PERFORMANCE
Frequency Range	<b>292-318 MHz</b>
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 Continuous
Harmonics	-60 dBc

## RECEIVE SPECIFICATIONS

LOS MODE	LOS PERFORMANCE
Frequency range	30-512 MHz
Insertion Loss	1.5 dB
SATCOM MODE	SATCOM PERFORMANCE
Frequency Range	242-268 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
Power Source	22-32 VDC
Front Panel Indicators	DC PWR, LOS, SATCOM, F HOP, TX, LNA, TX PWR Level, VSWR, TEMP, Fault
SATCOM/LOS Connector	Type N
Radio Connector	Type N
DC Power Connector	MS3102E-14S-5P (same as Bias Tee II)
Input/Output VSWR	2.0:1
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