



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 Bias Tee equipped system including electrical, environmental and physical mounting.

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



TRANSMIT SPECIFICATIONS

LOS MODE

Frequency range
Frequency Hopping
RF Power Input
RF Power Output
Harmonics
Transmit Duty Cycle

LOS PERFORMANCE

30-512 MHz with Automatic Frequency Detection
HaveQuick, SINCGARS Frequency Hopping and IW Compliant
5 Watts typical (2-20 Watts)
50 Watts FM/PEP
-60 dBc
Continuous

SATCOM MODE

Frequency Range
Modulation Format
COSITE suppression
Switching speed
RF power Input
RF power output
Harmonics

SATCOM PERFORMANCE

290-318 MHz
FM/MPSK 5 or 25 KHz Bandwidth
30 dB
DAMA Certified
5 Watts typical (2-20 Watts)
35/50/75 Watts Continuous
-60 dBc

RECEIVE SPECIFICATIONS

LOS MODE

Frequency range
Insertion Loss

LOS PERFORMANCE

30-512 MHz
1.5 dB

SATCOM MODE

Frequency Range
Noise Figure
Receive Gain

SATCOM PERFORMANCE

242-270 MHz
3.5 dB typical
10 dB with LNA Bypass Capability

GENERAL SPECIFICATIONS

Operator Controls
Power Source
Front Panel Indicators
SATCOM/LOS Connector
Radio Connector
DC Power Connector
Input/Output VSWR
VSWR Mismatch
High Temperature
DC off Bypass
Operating Temperature
Cooling
Dimensions
Weight

SATCOM, LOS, AM, FREQ HOP, TX Power Level, Bypass (off mode), LNA On/Off
24-28 VDC, 13 Amps typical Transmit, 500 mA typical Receive
DC PWR, LOS, SATCOM, F HOP, TX, LNA, TX PWR Level, VSWR, TEMP, Fault
Type N
Type N
MS3102E-14S-5P (same as Bias Tee II)
1.5:1
High VSWR Indication
High Temperature Indication
Routes Radio Connector to LOS Connector
-30 C to +60
Natural Convection
3" H x 6" W x 12" D
12 Lbs