FRONTGRADE



TCR-MBA-75

JITC DAMA Certified 75 Watt Remote Multiband RF Power Amplifiers

The TCR-MBA-75 and TCR-MBA-75-2A are JITC DAMA Certified 75 Watt Remote Multiband RF Power Amplifiers providing transmit and receive amplification across the 30-512 MHz band.

The TCR-MBA-75 f a m i l y 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 and Bias-Tee 2A, which provide remote control of the amplifier functions, are connected to the Amplifier via a single coax cable.

The Bias-Tee II family 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 with SATCOM/LOS ports
- SATCOM co-site interference elimination
- 35/50/75 W transmit power
- Proven in 10,000+ MRAP installs
- Rugged, compact, efficient design
- Common form factor & mounting
- Simple front panel controls
- DAMA, HaveQuick, SINCGARS compatible

Applications

- Vehicular tactical communication systems
- Airborne communication platforms
- Maritime communication systems
- Fixed-site communication infrastructure
- Manpack and handheld radio range extension

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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	292-318 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	242-268 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
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	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. (+1 lb Bias Tee)
Remote I/F	RS-232 Remote Control of Bias-Tee II functions

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