

MANPACK MOBILE COMMUNICATIONS CASE AN/PRC-117G

The Tricom Research **TCR-MPR-11/11B** is a fly away communications kit for use with the AN/PRC-117G Multiband Radio. It allows an operator to rapidly install a LOS, SATCOM, or Wideband communications link virtually anywhere to include military and commercial vehicles. The compact case is a highly integrated systems solution for a single AN/PRC-117G with a TCR-MBA-50v2 Multiband RF Power Amplifier (PA) and TCR-DSM-02 MUOS Diplexer and RF Switch. The switch provides automated switching between three RF outputs of the AN/PRC-117G and one auxiliary RF input, routes a single RF through the amplifier and to the corresponding antenna, and routes non-amplified RF ports to the other antennas. Switching and amplification are based on mode settings. An AC-DC and DC-DC power adapter provide flexible power options with a single BA5590 battery (user supplied) as backup. A single TCR-SPK-DUALv2 Amplified Speaker provides audio for two nets.

Part #: 11000-00931, TCR-MPR-11

Part #: 11000-00931B, TCR-MPR-11B (w/ wheels and handle)

FEATURES

- Transmit amplification for the 30-512 MHz frequency range
- Supports all modes and waveforms of the AN/PRC-117G
- Includes MUOS Diplexer for AN/PRC-117G MUOS operations
- Automatic switching and RF routing based on PA mode
- Carrier Detect Keying and Automatic Frequency Detection
- Highly portable
- Multiple power sources
- Automatic battery bypass with external power applied
- UPS capability for radio and speaker when external power is lost
- Integrated amplified speaker
- Auxiliary RF port for use with a secondary radio providing dual net operations



RF SPECIFICATIONS**RECEIVE BANDS WITH CO-SITE FILTERING**

VHF LOW	30-118 MHz
VHF HIGH	118-174 MHz
UHF	174-512 MHz
VHF/UHF	30-512 MHz
SATCOM	240-270 MHz

TRANSMIT HARMONIC SUPPRESSION

ALL BANDS	30-512 MHz
SATCOM	290-320 MHz

SUPPORTED WAVEFORMS

VHF LOW	AM, FM, SINCGARS
VHF HIGH	AM, FM
UHF	AM, FM, WIDEBAND (ANW2C, SRW), TACTICAL WAVEFORMS, HAVEQUICK, SATURN
VHF/UHF	AM, FM
SATCOM	DAMA, IW, ASCM
MUOS SATCOM	PA BYPASS ONLY, DIPLEXER INCLUDED

BYPASS (LOS, WB, SAT)

Typical Insertion Loss	30 MHz - 1 GHz, 1 dB
	1-2 GHz, 1.5 dB
	2-2.7 GHz, 4.5 dB

ALL MODES

RF Power Input	1-5 Watts (10W without damage)
RF Power Output	Battery Config. (reduced current): 10, 15, 20W Standard Config.: 12-22 VDC: 10, 15, 20W 22-28 VDC: 10, 15, 20, 35, 50W and 75W (SATCOM Burst Mode)
Receive Gain	15 dB, 3.5 dB Noise Figure

GENERAL SPECIFICATIONS

LOS Antenna Connector	TNC Female
SAT Antenna Connector	BNC Female
Wideband Antenna Connector	Type N Female
DC Connector	Amphenol MS3102E14S-5P
AC Connector	IEC C14
High Temperature	PA High Temperature Indication/Fold Back
DC Input	12-32 VDC
AC Input	90-260 VAC, 50/60 Hz
DC Off	Routes AN/PRC-117G RF Connectors to Antenna Connectors
Cooling	Natural Convection
Indicators	Power Amplifier OLED, Diplexer and Dual-Net Speaker LEDs
Dimensions	7.5" H x 20" W x 16" D (TCR-MPR-11), 10.5" H x 22" W x 18" D (TCR-MPR-11B)
Weight	34 lb (TCR-MPR-11), 49 lb (TCR-MPR-11B) (without radio or battery)