



**TRICOM**  
RESEARCH, INC.

TCR-MPR-01

## AN/PRC-117G Mobile Radio Communications kit

The Tricom Research Mobile Communications Kit is designed as a fly away communications kit for use with the Harris AN/PRC-117G Multi-Band Radio. It allows an operator to rapidly install a Line of Site or SATCOM communications link virtually anywhere to include military and commercial vehicles. The compact case holds a TRC-MBA-50 Multi-Band RF amplifier, one BA5590 battery (User supplied), an AC-DC power adapter, DC-DC power adapter, an amplified speaker, and an RF switch that allows automatic selection of the radio output port to the input of the RF power amplifier based on the mode of operation selected. Connections are provided for a SATCOM antenna, LOS antenna and wideband antenna.

**Part # 11000-00707**

### FEATURES

- 10 - 50 Watts Transmit Power
- Auto Frequency Selection
- Highly Portable
- Multi-Band 30-512Mhz
- Multiple Power Sources
- UPS capability when external power is lost
- Automatic Battery Bypass with External Power applied
- Amplified Speaker
- RF Switch for Automatic Radio and Antenna Port Selection
- Auxiliary RF port can be used with a secondary radio for two net operations



TCR-MPR-01 with secondary radio connected to auxiliary RF port.

**Radios, Handset, and Battery are NOT included**

## TRANSMIT SPECIFICATIONS

### SATCOM MODE

Frequency Range  
Switching Speed  
Modulation  
RF Power Input  
RF Power Output

### SATCOM PERFORMANCE

292-318 MHz  
JITC DAMA and IW compatible  
FM or Phase Modulation  
5 Watts (2-10 Watts typical)  
BA-5590 (12.7 VDC 4.5 A max): 10, 15, 20 Watts  
BB-2590 (15 VDC 4.5 A max): 10, 15, 25 Watts  
External 12-36 VDC: 10, 15, 25, 35, 50 Watts  
90-260 VAC, 50/60 Hz: 10, 15, 25, 35, 50 Watts

### LOS MODE

Frequency range  
Modulation  
RF Power Input  
RF Power Output

### LOS PERFORMANCE

30-512 MHz with Automatic Frequency Detection  
AM, FM or Phase Modulation, AM/FM Frequency Hopping  
5 Watts CW/PEP (2-10 Watts typical)  
BA-5590 (12.7 VDC 4.5 A max): 20 Watts CW/PEP  
BB-2590 (15 VDC 4.5 A max): 25 Watts CW/PEP  
External 12-36 VDC: 25, 50 W CW/PEP  
90-260 VAC, 50/60 Hz: 25, 50 W CW/PEP

## RECEIVE SPECIFICATIONS

### SATCOM MODE

Frequency range  
Noise Figure  
Receive Gain

### SATCOM PERFORMANCE

242-268 MHz  
3.5 dB Typical  
10 dB Typical

### LOS MODE

Frequency Range  
Insertion Loss  
VSWR

### LOS PERFORMANCE

30-512 MHz  
< 3.5 dB  
2.5:1 Max

## GENERAL SPECIFICATIONS

LOS Antenna Connector	TNC Female
SAT Antenna Connector	BNC Female
Wide Band Antenna Connector	Type N Female
DC Connector	Amphenol 97-3102A-14-5P
AC Connector	Standard EIC
High Temperature	High Temperature Indication/Fold back
AC Input	90-260 VAC, 50/60 Hz
DC Input	12-32 VDC
DC Off	Routes Radio Connector to LOS Antenna Connector
Cooling	Natural Convection
Dimensions	7" H x 18.5" W x 14.06" D
Weight	35 Lbs