



TRICOM
RESEARCH, INC.

TCR-HHR-01

AN/PRC-152/152A Mobile Radio Communications kit

The Tricom Research Handheld radio Mobile Communications Kit is designed as a fly away communications kit for use with the Harris AN/PRC-152 and 152A Multi-Band Radios. It allows an operator to rapidly install a LOS, SATCOM, or Wideband communications link virtually anywhere to include military and commercial vehicles or "TOC in a Box" applications. The compact case holds a TCR-MBA-50 WB Wideband/Multi-Band RF amplifier with custom heatsink for air flow cooling, two BA-5590 style batteries (user supplied), a DC-DC power adapter for the radio, a radio battery charger, a temperature controlled dual fan enclosure for power amplifier cooling and an egress panel for easy access to antenna, data, PA remote and input power connections. Connections are provided for a SATCOM antenna, LOS antenna and wideband antenna.



Radio and batteries NOT included

Part Number: 11000-00748

FEATURES

- Up to 50 Watts transmit power output (User selectable)
- Auto frequency selection
- Highly portable
- Multi-Band 30-512Mhz
- Wide-Band Operation 225-450Mhz
- Automatic switching, UPS capability when external DC power is lost
- Automatic battery bypass with external power applied
- Optional remote capable amplified speaker w/operation up to 50'
- Backup battery status indicator (does not charge XX90 batteries)
- Integrated radio battery charging.
- Microprocessor controlled DC power and cooling system.
- Custom PA heat sink for more efficient fan cooling operation in a splash proof case (when lid is closed)
- Automatic PA DC mode of operation based on DC voltage source (battery, commercial vehicle 12-14 VDC or military vehicle 24-28 VDC)
- USB interfaces for PA remote and radio data

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
2-10 Watts (20W without damage)
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
Commercial Vehicle (13.5 VDC 5.5 A max): 10, 15, 20 Watts
Military Vehicle (28 VDC 6.5 A max): 10, 15, 25, 35, 50 Watts

LOS/WB MODE

Frequency range
Modulation
RF Power Input
RF Power Output

LOS/WB PERFORMANCE

30-512 MHz with Automatic Frequency Detection/ WB 225-450 MHz
AM, FM or Phase Modulation, AM/FM Frequency Hopping and ANW2/SRW
2-10 Watts (20W without damage)
BA-5590 (12.7 VDC 4.5 A max): 20 Watts
BB-2590 (15 VDC 4.5 A max): 20 Watts
Commercial Vehicle (13.5 VDC 5.5 A max): 25 Watts
Military Vehicle (28 VDC 6.5 A max): 25 Watts, 50 Watts (LOS only)

RECEIVE SPECIFICATIONS

SATCOM MODE

Frequency range
Noise Figure
Receive Gain

SATCOM PERFORMANCE

242-268 MHz
3.75 dB Typical
10 dB or LNA Bypass

LOS MODE

Frequency Range
Insertion Loss
VSWR

LOS PERFORMANCE

30-512 MHz
< 1 dB
2.5:1 Max

WB PERFORMANCE

225-450 MHz
< 2.5 dB
2.5:1 Max

GENERAL SPECIFICATIONS

LOS Antenna Connector	Type N Female
SAT Antenna Connector	Type N Female
Wide Band Connector	Type N Female
DC Connector	Amphenol 97-3102A-14-5P
USB Connectors	USB Mini Type B
Speaker Interface Connector	DB9 Female
High Temperature	PA High Temperature Indication/Fold back
DC Input	12-32 VDC
DC Off	Routes Radio Connector to LOS Antenna Connector
Operating Temperature	-30 C to +60
Cooling	Air flow cooling for PA and inside the case
Indicators	DC ON/ Ext DC Applied/XX90 Battery status/Radio Battery Charge Status
Dimensions	7" H x 16" W x 13" D
Weight	18 lbs