

# Family of Tactical Terminals

World-Class Communications Anywhere in the World™

## LIGHTWEIGHT, LOW-COST SATCOM SOLUTION FOR MOBILE REMOTE USERS

With rapidly changing mission profiles, today's military users require ultra-portable, simple-to-use, highly reliable communication systems. Harris CapRock's family of tactical terminals was designed with those needs in mind. Developed in concert, all terminals in the family utilize interchangeable components and common electronics to provide scalability and flexibility.

The terminals easily connect to Harris CapRock's CommandAccess™ network to deliver complete, end-to-end, military-grade satellite communications solutions.



**CommandAccess™**  
by Harris CapRock  
Certified

### Communications Solutions for MILSATCOM Platforms:

#### FEATURES

- > Auto-assist pointing using logical, front-panel display
- > Internal compass, GPS, inclinometer, modem and GUI
- > Highly functional design in a compact form factor
- > Low-loss RF components and interfaces
- > Advanced power management system
- > Advanced cooling system with passive thermal management

#### BENEFITS

- > Increased terminal reliability without any audio signature
- > Simple setup and operation for the incidental operator
- > No additional tools needed for operation
- > Optimal flexibility for a variety of mission profiles
- > Increased bandwidth efficiency
- > Increased mission assurance in remote areas
- > Assured communications in adverse conditions

## 45 CM AND 65 CM COMPACT, MAN-PACK SATELLITE TERMINAL

Harris CapRock's compact terminal offers a lightweight, portable man-pack SATCOM solution for government and military users deployed in remote areas of operation. The X-band variant is certified for use with WGS, SKYNET and XTAR satellites. The innovative, user-friendly microsats terminal is designed for the highly mobile incidental operator.



### TECHNICAL PERFORMANCE CHARACTERISTICS

CHARACTERISTIC	SPECIFICATION
Modem and transceiver	12" x 8" x 4" W x D x H
Backpack	20" x 12" x 7"
Hardened case	21.7" x 14.1 x 8.9"
Weight	17 lbs mast-mounted 27 lbs total system
Power input (auto-sensing)	85 – 265 VAC, 47-440 Hz 10 – 36 VDC External battery (not included)
Battery run-time	80 min using one (1) BB-2590 Greater than 3 hours when using keyline feature
Operating frequency (X-band)	Uplink: 7.90 – 8.40 GHz Downlink: 7.25 – 7.75 GHz
Operating frequency (Ku-band)	Uplink: 13.75 – 14.5 GHz Downlink: 10.95 – 12.75 GHz
Operating temperature range	-20 to +55 deg C
G/T - (20 deg elevation angle)	45 cm antenna X-band - 8.4 dB/K 65 cm antenna X-band - 11.4 dB/K 65 cm antenna Ku-band - 14.2 dB/K
EIRP - P1dB	45 cm antenna X-band - 41.8 dBW 65 cm antenna X-band - 44.8 dBW 65 cm antenna Ku-band - 46.3 dBW
Modem	iDirect e850MP
Any external L-band modem	Via external L-Band Tx/Rx connections
GPS antenna	Internal GPS with tethered antenna
Interfaces	Power connector: 1 Mil-Std, MS-3112, 10-pin Ethernet ports: 2, RJ45 Console port: 1, RJ45 Monitor port: 1, L-band, F-type External modem connections: 2, L-band, F-type

### CommandAccess™

The CommandAccess suite of prepackaged and customized satellite communications services connects Harris CapRock's family of terminals to the Internet, public switched telephone networks (PSTN), and secure government networks. Harris CapRock's offering is built from the ground up as a commercially available, yet military-grade network for voice, video and data communications. In addition to the Harris CapRock family of tactical terminals, other compatible remote field terminals can be used on the CommandAccess network.



All of the antennas in Harris CapRock's terminal family utilize common components to ease training, operation, logistics, repair and maintenance. Harris CapRock works with customers to tailor the best solution to meet their mission requirements. Shown above are the 45 cm, 65 cm and .95 m variants.

## .95 M AND 1.3 M COMPACT, MULTI-BAND, FLY-AWAY SATELLITE TERMINALS

Harris CapRock's compact, fly-away terminal offers portability with an airline-checkable solution. Designed for maximum gain and throughput, this offering extends the family of terminals for end-users with higher data requirements. WGS certification in X-band is complete for the 1.3 m unit and underway for the .95 m unit.



### TECHNICAL PERFORMANCE CHARACTERISTICS

CHARACTERISTIC	SPECIFICATION
Power input (auto-sensing)	85 – 265 VAC, 47-440 Hz 10 – 36 VDC External battery (not included)
Battery run-time	80 min using one (1) BB-2590 Greater than 3 hours when using keyline feature
Operating frequency (X-band)	Uplink: 7.9 – 8.4 GHz Downlink: 7.25 – 7.75 GHz
Operating frequency (Ku-band)	Uplink: 13.75 – 14.5 GHz Downlink: 10.95 – 12.75 GHz
Operating frequency (Ka-band)	1.3 m antenna uplink: 30.0 – 31.0 GHz 1.3 m antenna downlink: 20.2 – 21.2 GHz
Operating temperature range	-20 to +55 deg C
G/T - (30 deg elevation angle)	.95 m antenna X-band: 14.0 dB/K .95 m antenna Ku-band: 17.8 dB/K 1.3 m antenna X-band: 16.7 dB/K 1.3 m antenna Ku-band: 20.6 dB/K 1.3 m antenna Ka-band: 22.1 dB/K
EIRP - PI dB	.95 m antenna X-band: 46 dBW .95 m antenna Ku-band: 50 dBW 1.3 m antenna X-band: 49 dBW 1.3 m antenna Ku-band: 53 dBW 1.3 m antenna Ka-band: 57 dBW
Modem	iDirect e850MP
Any external L-band modem	Via external L-band Tx/Rx connections
GPS antenna	Internal GPS with tethered antenna
Interfaces	Power connector: 1 Mil-Std, MS-3112, 10-pin Ethernet ports: 2, RJ45 Console port: 1, RJ45 Monitor port: 1, L-band, F-type External modem connections: 2, L-band, F-type



#### Optional Add-On: Reconn™ Mobile SATCOM Toolkit

Reconn is the first SATCOM toolkit in one handheld device designed to locate, acquire and sustain any SATCOM link. Highlighted below are just a few of the key features that show how Reconn simplifies the SATCOM set-up process.

- > One 10-pound unit replaces 160 lbs of equipment
- > Combines spectrum analyzer; power meter; multimeter; compass, inclinometer, GPS receiver; magnetic direction map and laptop into one handheld device
- > Simplifies user experience through an intuitive, well-known, multi-touch user interface



Users can integrate Harris CapRock's Reconn mobile SATCOM toolkit with any of the terminals in the family for a simplified, portable solution.

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## PACKAGING OPTIONS

### 45 cm and 65 cm Compact Man-Pack Satellite Terminal



Roll-away hard case, FAA-overhead compliant (Black)



Small rucksack, FAA-overhead compliant (Black, Desert Tan, and OD Green)



Roll-away soft case with backstraps; FAA-overhead compliant (Black)



Airline-checkable and shipping hard case for man-pack and rucksack (Black, Desert Tan, and OD Green)

### .95 M COMPACT, MULTI-BAND, FLY-AWAY TERMINAL

# OF FEEDS	FREQUENCY BANDS	CASES WITH WEIGHT	CASE DIMENSIONS
1	Single (X, Ku or Ka)	One 65-lb case and one 36-lb case	24.60" x 19.70" x 14.40" 21.20" x 16.00" x 8.30"
2	Dual (e.g. X and Ku)	Two cases, less than 70 lbs	24.60" x 19.70" x 14.40" (both)
3	Tri (X, Ku and Ka)	Two cases, less than 70 lbs	24.60" x 19.70" x 14.40" 31.30" x 20.40" x 12.20"

### 1.3 M COMPACT, MULTI-BAND, FLY-AWAY TERMINAL

# OF FEEDS	FREQUENCY BANDS	CASES WITH WEIGHT	CASE DIMENSIONS
1	Single (X, Ku or Ka)	One 67-lb case and one 36-lb case	31.30" x 20.40" x 15.50" 21.20" x 16.00" x 8.30"
2	Dual (e.g. X and Ku)	Two cases, less than 70 lbs	31.30" x 20.40" x 12.20" (both)
3	Tri (X, Ku and Ka)	Two cases, less than 70 lbs, and one 36-lb case	31.30" x 20.40" x 12.20" 21.20" x 16.00" x 8.30"

**TERMINAL AND  
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