

# Deployed Communications Terminals

Reliability Never Reached So Far™



**CommandAccess™**  
by Harris CapRock  
Certified

## PORTABLE TRI-BAND SATCOM SOLUTION FOR A VARIETY OF USERS

Whether it's allied forces, first responders, or special operations, today's customers executing rapidly changing missions need to be equipped with reliable solutions that offer maximum flexibility. Harris CapRock's Deployed Communications Terminals feature a fully integrated, man-portable design that is ideally suited for a variety of mission profiles. Developed for the highly mobile incidental user, the tri-band antenna system supports interchangeable modem options.

The terminals easily connect to Harris CapRock's CommandAccess™ network to deliver a secure end-to-end solution to connect operations anywhere on earth. Harris CapRock provides 24/7 support for CommandAccess solutions, leveraging globally dispersed personnel.

### Communications Solutions for a Variety of Applications

#### AT-A-GLANCE FEATURES

- > Available in motorized and manual variants
- > Interchangeable modem options
- > Commercial and NATO satellite certifications
- > Tri-band system – Available in X, Ka and Ku Bands
- > Motorized variant features one-button auto-acquire

#### BENEFITS

- > Optimal flexibility for a variety of mission profiles
- > Simple setup and operation for the incidental user
- > Highly portable and extremely lightweight
- > Fully integrated rugged man-pack design
- > Assured communications in adverse conditions

#### Extensive Approvals and Certifications

- > ETSI EN 301.358
- > MIL-STD-188-164A
- > ITU-R S.580-6
- > ITU-R S.465-5
- > MIL 810F
- > FCC 25.209 (90-cm version only)
- > Radiation Pattern Compliance:
  - ITU-R S.465.5 and S.580-6 (65 and 90-cm)
  - FCC 25.209 with 25.212 (65 and 90-cm)
  - ETSI EN 301.358 (65 and 90-cm)
  - ETSI EN 301.35 (65-cm)
  - MIL-STD-188-164A (65-cm)
  - INTELSAT IESS-601 (90-cm)
  - INTELSAT IESS-602 (90-cm)

## 65 CM AND 90 CM DEPLOYED COMMUNICATIONS TERMINALS – MANUAL

Harris CapRock’s manual tri-band system is available with either a 65-cm or 90-cm reflector. The man-portable terminal offers an extremely lightweight solution that fits into one ruggedized backpack. With its simple set-up, this antenna is designed for the rapid deployment needs of the highly mobile, remote user.

### TECHNICAL PERFORMANCE CHARACTERISTICS

CHARACTERISTIC	SPECIFICATION
Weight	65-cm antenna: 12.5 kg (without case) 90-cm antenna: 15.5 kg (without case)
Power Input	<b>65-cm and 90-cm antenna:</b> 10-36V DC 90-260 VAC Up to 400W External Battery Pack
Operating frequency (X-band)	<b>65-cm and 90-cm antenna:</b> Uplink: 7.9-8.4 GHz Downlink: 7.25-7.75 GHz
Operating frequency (Ku-band)	<b>65-cm and 90-cm antenna:</b> Uplink: 13.75-14.5 GHz Downlink: 10.7-12.75 GHz
Operating frequency (Ka-band)	<b>65-cm and 90-cm antenna:</b> Uplink: 29.5-31 GHz (Option 27-29.5 GHz) Downlink: 18.7-22.2 GHz (Option 20.2-21.2 GHz)
Operating Temperature	-20 to +55 deg C
G/T @ 7.5 GHz	65-cm antenna X-band – 10.1 dB/K 90-cm antenna X-band – 13 dB/K
G/T @ 20.7 GHz	65-cm antenna Ka-band – 18.5 dB/K 90-cm antenna Ka-band – 21.3 dB/K
G/T @ 11.7 GHz	65-cm antenna Ku-band – 14.1 dB/K 90-cm antenna Ku-band – 18 dB/K
EIRP (sat) @ 8.15 GHz	65-cm antenna X-band – 45.3 dB/W 90-cm antenna X-band – 48.1 dB/W
EIRP (sat) @ 30.5 GHz	65-cm antenna Ka-band – 50.7 dB/W (5W) 90-cm antenna Ka-band – 56.6 dB/W (10W)
EIRP (sat) @ 14.125 GHz	65-cm antenna Ku-band – 46.2 dB/W (8W) 90-cm antenna Ku-band – 54.2 dB/W (25W)
Modem – Modems may be exchanged at base level maintenance.	<b>Modem Options:</b> iDirect e850mp Comtech DMD1050 Elbit-Shiron modem
Interfaces	DC Power (X-band, 5W Ka-band, 8W Ku-band) AC Power L-Band Tx Interface (External Modem) L-Band Rx Monitor L-Band Modem Output RJ45 Ethernet (1 or 2 based on modem option) EIA-530 (Modem dependent)



## 90 CM AND 120 CM DEPLOYED COMMUNICATIONS TERMINALS – MOTORIZED

The Harris CapRock motorized terminal is available with either a 90-cm or 120-cm reflector and offers extreme ease of use and flexibility. The user-friendly motorized terminal is designed for quick deployment even by personnel who may not be expertly trained in SATCOM. A one-button auto-acquire capability allows for link acquisition in less than five minutes.

### TECHNICAL PERFORMANCE CHARACTERISTICS

CHARACTERISTIC	SPECIFICATION
Weight	90-cm antenna: 30kg 120-cm antenna: 32 kg <i>*Weight includes all electronics RF components and carry case.</i>
Power Input	<b>90-cm and 120-cm antenna:</b> 10-36V DC 90-260 VAC Up to 400W External Battery Pack
Operating frequency (X-band)	<b>90-cm and 120-cm antenna:</b> Uplink: 7.9-8.4 GHz Downlink: 7.25-7.75 GHz
Operating frequency (Ku-band)	<b>90-cm and 120-cm antenna:</b> Uplink: 13.75-14.5 GHz Downlink: 10.7-12.75 GHz
Operating frequency (Ka-band)	<b>90-cm and 120-cm antenna:</b> Uplink: 29.5-31 GHz (Option 27–29.5 GHz) Downlink: 20.2-21.2 GHz (Option 18.7 GHz–20.2 GHz)
Operating temperature range	-20 to +55 deg C
G/T @ 7.5 GHz	90-cm antenna X-band – 12.8 dB/K 120-cm antenna X-band – 15.5 dB/K
G/T @ 20.7 GHz	90-cm antenna Ka-band – 21.9 dB/K 120-cm antenna Ka-band – 24.0 dB/K
G/T @ 11.7 GHz	90-cm antenna Ku-band – 19.0 dB/K 120-cm antenna Ku-band – 20.5 dB/K
EIRP (sat) @ 8.15 GHz	90-cm antenna X-band – 48.1 dB/W 120-cm antenna X-band – 51.0 dB/W
EIRP (sat) @ 30.5 GHz	90-cm antenna Ka-band – 56.6 dBW (10W) 120-cm antenna Ka-band – 59.1 dBW (10W)
EIRP (sat) @ 14.125 GHz	90-cm antenna Ku-band – 54.2 dBW (25W) 120-cm antenna Ku-band – 58.8 dBW (40W)
Modem – Modems may be exchanged at base level maintenance.	<b>Modem Options:</b> iDirect e850mp Comtech DMD1050 Elbit-Shiron modem
Interfaces	DC Power (X-band, 5W Ka-band, 8W Ku-band) AC Power L-Band Tx Interface (External Modem) L-Band Rx Monitor L-Band Modem Output RJ45 Ethernet (1 or 2 based on modem option) EIA-530 (Modem dependent)



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## PACKAGING

Harris CapRock's Deployed Communications Terminals feature a "one box" packaging solution that incorporates the antenna, modem and all electronics for extreme ease of transport. The canvas backpack utilizes high density foam to protect inside content. Having undergone extensive testing with commercial airline baggage handlers and military aircraft, these cases provide a trusted level of protection.



## ENVIRONMENTAL SPECIFICATIONS

Performance Requirement	Standard
Vibration	MIL-STD-810F-514.5C
Drop Test	MIL-STD-810F-516.5-4
Water/Rain	IP65 - Def. Stan 00-35 pt3, Issue 4, Test CL27
Particles, blowing Dust and Sand	Def. Stan 00-35 pt3, Issue 4, Test CL25
EMC	EN55022 (B)@3m Radiated emissions
Conductive Emissions	IEC61000-4-4
Conductive RF immunity	IEC61000-4-4
Voltage surge, dip and ESD	EN55022 (B) @3m

- > **Operating Temperature**  
-20°C to +55°C
- > **Storage Temperature**  
-40°C to +80°C
- > **Operating Altitude**  
3000 m (Survival Altitude, 4500 m)
- > **Operating Wind Speed (No ballast)**  
25 mph
- > **Operating Wind Speed (With ballast)**  
45 mph
- > **Shock**  
MIL-810F Method 513.5 procedure IV
- > **Vibration**  
MIL-810F Method 514.1 procedure I

### CommandAccess™

The CommandAccess suite of prepackaged and customized satellite communications services connects Harris CapRock's deployed communications 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.

TERMINAL AND  
COMMANDACCESS™ SALES  
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