

# Global Communications Solutions (GCS)

## HAWKEYE™ 1.6M MULTI-BAND VSAT



HAWKEYE™ 1.6M INDOOR UNIT (IDU)

Whether the need is remote Internet/VPN, live videoconferencing, surveillance or reconnaissance, the 1.6M Auto-Acquire Flyaway VSAT system provides high data rate communications up to 8Mbps rate determined by the link parameters. The 1.6M Flyaway Multi-Band VSAT is designed to operate in X, Ku and Ka band.

The terminal can be deployed in a matter of minutes utilizing an auto-acquire antenna system, 4-segment carbon fiber circular reflector, and GCS custom made Cheetah Outdoor Unit (ODU) which includes the latest version of the iDirect evolution e800 modem, 25W wideband BUC/SSPA, managed switch and a control processor.

The complete system consists of seven cases housing an Auto-Acquire 1.6M antenna pedestal, 1.6M 4-segment reflector, antenna boom and Ku-Band feed, antenna controller with L-Band beacon receiver, 3 LNBS for global coverage, fiber modem and a 500-ft fiber cable on a reel. The X and Ka bands kits are optional. The controller with beacon supports tracking on X and Ka bands.

### **System Features:**

- Auto-Acquire 1.6M carbon fiber antenna system finds the satellite automatically in minutes
- Embedded iDirect iConnex™ e800 Evolution modem capable of DVB-S2
- Automatic satellite acquisition, peaking, and cross-pol adjustment using GPS, compass, and level sensor inputs
- Segmented carbon fiber reflector offers high performance and light weight
- Inclined orbit tracking capable of X and Ka-band operation

### **Applications:**

- Quick-deploy voice, data, and video
- Military command/control or logistic support communications
- Deployable Homeland Defense or Emergency response communications
- Worldwide remote Internet/VPN connectivity
- VoIP or Video-Conferencing



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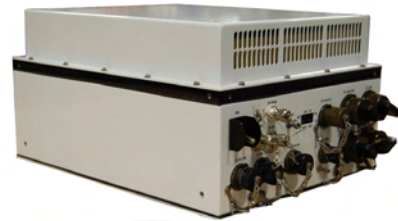
## HAWKEYE™ 1.6M MULTI-BAND VSAT

### **Antenna and RF System (Ku-Band):**

Pedestal:	Motorized, cased based, fully auto-acquire
Reflector type:	1.6M segmented carbon fiber
Optics:	Offset, Prime Focus, 0.8 F/D
Azimuth:	400°
Elevation:	0-90°
Transmit Frequency:	13.75 - 14.5 GHz
Receive Frequency:	10.95 - 12.75 GHz
Gain (midband) dBi:	45 (Tx); 43.7 (Rx)
EIRP:	58 dBW
G/T (20°K LNB):	23.7 dB/K (typical)
Polarization:	Linear or Co-POL
Controller:	RC-3000 with Beacon receiver; auto-acquisition
IFL:	500 ft. fiber on reel 100ft. Control
Temperature:	
Operational	-20°C to +55°C
Storage	-40°C to -70°C

### **X-Band Kit:**

Transmit frequency:	7.90 - 8.40 GHz
Receive frequency:	7.25 - 7.75 GHz
HPA:	400W TWTA
Gain (Midband) dBi:	40.5 (Tx); 39.7 (Rx)
G/T (20°K LNB):	25.9 dB/K (typical)
Polarization:	Linear or Circular



### **Cheetah Outdoor Unit (ODU):**

SSPA:	25W Wideband
Modem:	iDirect iConnex™ e800 (standard) iDirect iConnex™ e700 (optional) ViperSat (optional)
Switch:	Managed Ethernet Ports: 4
Interface:	LAN (standard) DSL (optional)
Operator Interface:	GCS ViewSat™

### **Configuration - Rugged Hardigg shipping cases:**

Motorized Pedestal:	29" x 27" x 27" - 168 lbs.
Outriggers & Fiber:	39" x 23" x 23" - 116 lbs.
Reflector case:	39" x 39" x 24" - 145 lbs.
Feed boom/struts:	59" x 20" x 13" - 67 lbs.
Controller (IDU):	34" x 23" x 12" - 82 lbs.
IFL & control cable:	29" x 27" x 21" - 150 lbs.
Ku band ODU kit:	29" x 27" x 21" - 110 lbs.

### **GCS-1216 Series Multi-Band System Configurations:**

GCS-1216iKW-25	1.6M Ku-Band system
GCS-1216-24XW/kit	X-Band kit

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