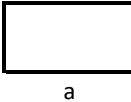


Satellite Simulator Antenna Beamwidths

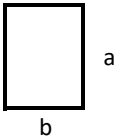
Receive Antennas

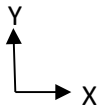
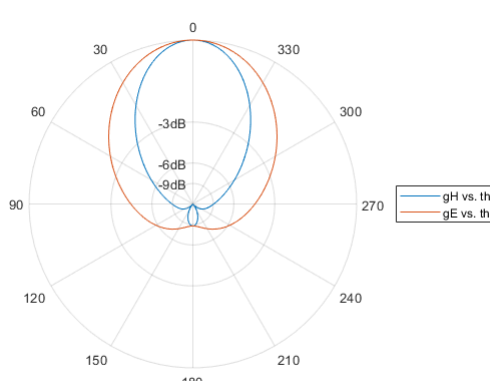
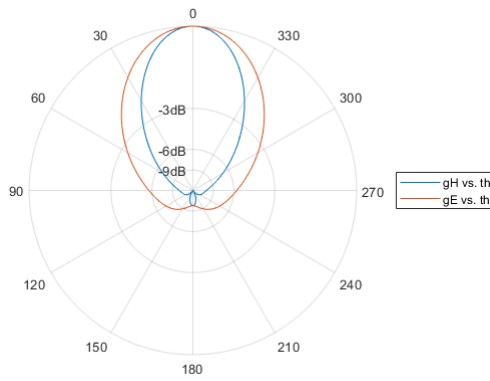
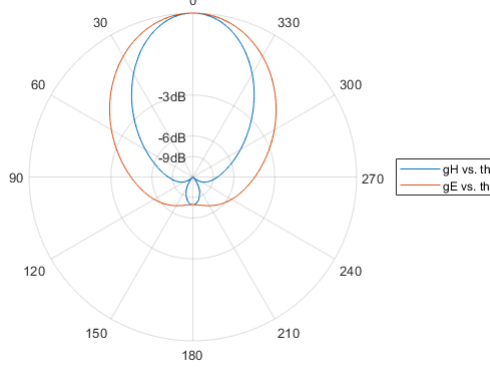
Uplink Frequency Band	EIA WR Designation	Dimensions				Frequency (GHz)			Wave Length (cm)		
		a(in)	b(in)	a(cm)	b(cm)	L	M	H	L	M	H
X-Band	112	1.122	0.497	2.8	1.3	7.90	8.15	8.40	3.79747	3.68098	3.57143
Ku-Band	75	0.750	0.375	1.9	1.0	13.75	14.13	14.25	2.18182	2.12389	2.10526
Ka-Band	28	0.280	0.140	0.7	0.4	29.00	30.00	31.00	1.03448	1.00000	0.96774

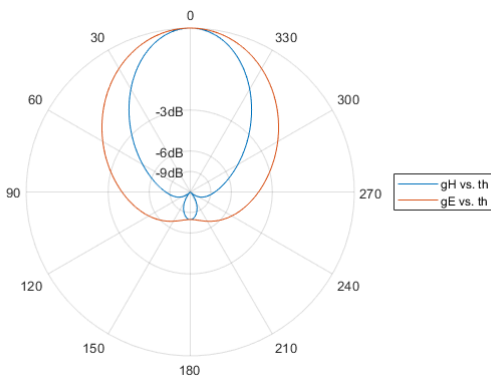
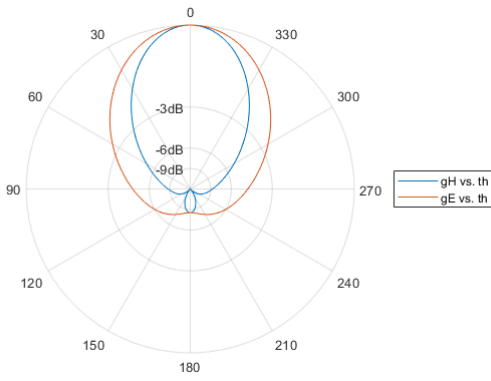
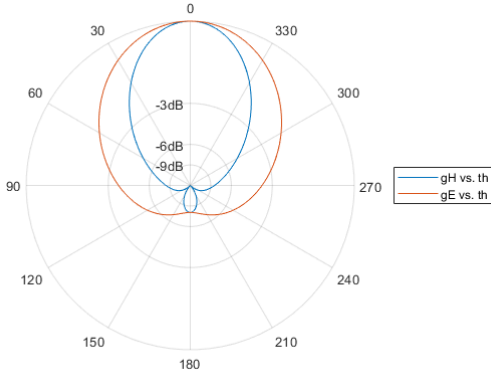
Uplink Frequency Band	E-Field Orientation	L		M		H		Orientation 	Gain (dBi)		
		$\Delta\theta_x$	$\Delta\theta_y$	$\Delta\theta_x$	$\Delta\theta_y$	$\Delta\theta_x$	$\Delta\theta_y$		L	M	H
X-Band	Horizontal	90.8	152.7	88.0	148.0	85.4	143.6		4.0	4.3	4.6
Ku-Band		78.0	116.3	75.9	113.2	75.3	112.2		5.9	6.1	6.2
Ka-Band		99.1	147.7	95.8	142.7	92.7	138.1		3.8	4.1	4.4
		Average		86.6	134.6				Average		4.8 dBi

Transmit Antennas

Downlink Frequency Band	EIA WR Designation	Dimensions				Frequency (GHz)			Wave Length (cm)		
		a(in)	b(in)	a(cm)	b(cm)	L	M	H	L	M	H
X-Band	112	1.122	0.497	2.8	1.3	7.25	7.50	7.75	4.13793	4.00000	3.87097
Ku-Band	75	0.750	0.375	1.9	1.0	10.95	11.85	12.75	2.73973	2.53165	2.35294
Ka-Band	42	0.420	0.170	1.1	0.4	19.20	20.20	21.20	1.56250	1.48515	1.41509

Downlink Frequency Band	E-Field Orientation	L		M		H		Orientation 	Gain (dBi)		
		$\Delta\theta_x$	$\Delta\theta_y$	$\Delta\theta_x$	$\Delta\theta_y$	$\Delta\theta_x$	$\Delta\theta_y$		L	M	H
X-Band	Vertical	166.4	98.9	160.8	95.6	155.7	92.5		3.3	3.6	3.9
Ku-Band		146.0	98.0	134.9	90.5	125.4	84.1		3.9	4.6	5.2
Ka-Band		183.7	99.8	174.6	94.8	166.4	90.4		2.8	3.3	3.7
		Average		156.8	93.7				Average		3.8 dBi

Uplink Antenna				
Waveguide Orientation				
1 				
Band	EIA WR	Mid-Band Gain (dBi)	3 dB Beam Width	Pattern
X-Band	112	4.3	$\Delta\theta_x = 88^\circ$ $\Delta\theta_y = 148^\circ$	
Ku-Band	75	6.1	$\Delta\theta_x = 75.9^\circ$ $\Delta\theta_y = 113.2^\circ$	
Ka-Band	28	4.1	$\Delta\theta_x = 95.8^\circ$ $\Delta\theta_y = 142.7^\circ$	

Downlink Antenna				
Waveguide Orientation				
				
Band	EIA WR	Mid-Band Gain (dBi)	3 dB Beam Width	Pattern
X-Band	112	3.6	$\Delta\theta_x = 160.8^\circ$ $\Delta\theta_y = 95.6^\circ$	
Ku-Band	75	4.6	$\Delta\theta_x = 134.9^\circ$ $\Delta\theta_y = 90.5^\circ$	
Ka-Band	42	3.3	$\Delta\theta_x = 174.6^\circ$ $\Delta\theta_y = 94.8^\circ$	

QUAD-BAND SATELLITE SIMULATOR



FEATURES:

- SIMULATES C, X, Ku, AND Ka BANDS SIMULTANEOUSLY
- PERMITS EARTH STATION SET UP WITHOUT ACTUAL SATELLITES AVAILABLE
- COMPACT WITH SELF CONTAINED ANTENNAS
- EASY TO OPERATE
- RUGGEDIZED / WEATHERPROOF ENCLOSURE
- LIGHT WEIGHT: <35 LBS
- FIELD TESTED
- SIMULATES OPERATION OVER 300 FT
- AC & DC POWER

TAMPA MICROWAVE'S satellite simulator provides a compact easy to use solution as a training and evaluation tool for satellite earth terminals.

SPECIFICATIONS/MODEL NUMBER LTT-03-W-198

INPUT CONTROL AND POWER:

AC POWER: 115 TO 230 VAC @ 5 WATTS NOMINAL

DC POWER: 12 TO 24 VOLTS DC

RF INPUT SIGNALS:

C BAND: 5.85 TO 6.425 GHz @ NOMINAL -15 dBm

X BAND: 7.9 TO 8.4 GHz @ NOMINAL -15 dBm

Ku BAND: 14.0 TO 14.5 GHz @ NOMINAL -15 dBm

Ka BAND: 30.0 TO 31.0 GHz @ NOMINAL -15 dBm

INPUT LEVELS ARE DEPENDENT ON DISH SIZE, DISTANCE TO SIMULATOR, AND TRANSMITTER POWER

RF OUTPUT SIGNALS: BAND SELECTION PER EXTERNAL CONTROLLER COMMAND

C BAND: 3.625 TO 4.20 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

X BAND: 7.25 TO 7.75 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

Ku BAND: 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz, 12.25-12.75 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

Ka BAND: 20.2 TO 21.2 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

ENVIRONMENTAL:

OPERATING TEMPERATURE: 0° TO + 50° C

(Model LTT-03-W-198R **Quad Band Satellite Simulator** with wireless remote control is also available. Specifications are the same as above except you can control band selection and adjust the attenuation remotely.)

TRANSFER CHARACTERISTICS ALL BANDS

PHASE NOISE: 10 dB (TYPICAL) BETTER THAN IESS 308/309

MIDBAND GAIN: 30 dB LOSS + ATTENUATION SETTING (MEASURED @ INPUT/OUTPUT ANTENNA INTERFACES)

GAIN ADJUSTMENT: 35 dB CONTINUOUSLY VARIABLE

GAIN RIPPLE FULL BAND: +/- 1.5 dB MAX

GAIN RIPPLE PER 80 MHz: +/- 0.75 dB MAX

PHASE LINEARITY PER 5 MHz: +/- 10 DEG MAX

FREQUENCY TRANSLATION ACCURACY: +/-5kHz NOMINAL, +/-10kHz FOR Ka BAND

INBAND SIGNAL RELATED SPURIOUS: -50 dBc NOMINAL

LO LEAKAGE: -90 dBm MAX

IMAGE REJECTION: >50 dB

VSWR IN AND OUT: 2.0:1

INPUT AND OUTPUT ANTENNAS: WITH NOMINAL GAINS OF 6 dB

1 dB COMPRESSION POINT: 0 dBm AT 0 dB ATTENUATION

GROUP DELAY: +/- 5 ns/40 MHz

PHYSICAL:

MECHANICAL DIMENSIONS: 6.0H X 14.0D X 12.0W INCHES

WEIGHT: <35 lbs

FRONT PANEL CONTROLS: 30 dB ATTENUATION (CONTINUOUS) PER BAND

FRONT PANEL INDICATORS: LOCK ALARMS

REMOTE SWITCH CONTROL (50 FT CABLE): BAND SELECT (SINGLE OR SIMULTANEOUS), LOCK INDICATORS

THE RAPID RESPONSE SUPPLIER OF CHOICE

QUALITY PRODUCTS FROM TAMPA: BLOCK UP AND DOWN CONVERTERS • TRANSMITTERS • LOOP TEST TRANSLATORS • CUSTOM RACK-MOUNT SUBASSEMBLES • REMOTE SPECTRUM ANALYZERS • CARRIER MONITORING SYSTEMS • SIGNAL INTELLIGENCE RECEIVERS (SIGINT)



Ku-Band Flat-Panel VSAT



The L3 Shadow is a Ku-Band, small form factor, lightweight, flat panel VSAT. This system provides high-speed data communications for Internet, VPN connectivity and video transmission. This highly rugged VSAT is designed to fit in a backpack or laptop-sized case for ease of transport and missions that require inconspicuous travel.

Integration of the modem, RF components, and antenna into a single assembly greatly reduces set up time. In most cases the Shadow VSAT can be set up and operational in less than five minutes.

The embedded L3 GCS ViewSat-e GUI, integrated GPS and compass, enable an elegant and simple satellite pointing process. Operators are provided visual feedback indicators including signal strength via the integrated front panel display.

System Features

- Small form factor, lightweight design
- Flat panel antenna
- Airline carry-on, built-in battery
- Integrated ViewSat-e web-based GUI
- Front panel user interface
- External AC or DC power supply
- Integrated Wi-Fi access point
- iDirect Evolution and Velocity support

Benefits

- Executive/VIP travel; Military SATCOM
- Lightweight: 25 lbs.
- Low profile: Less than 4.5 inches thick
- Assisted pointing; setup in less than 5 minutes
- Designed for new HTS networks
- Sealed against weather and particles — for austere environments

Application

- Executive/VIP travel, Military SATCOM



Ku-Band Flat-Panel VSAT

ANTENNA	
Size	10.75 x 15.75 (inches)
Acquisition	Manual
Elevation	0° to +90°
BAND SUPPORT	
Ku-	
RF PERFORMANCE	
	Ku-Band
Transmit (GHz)	13.75 to 14.5
Receive (GHz)	10.95 to 12.75
Polarization	Linear
EIRP (dBW)	43.0 dBW
G/T (dB/K)	8.0 dB/K
MODEM INTEGRATION	
iDirect 950mp	
INTERFACES	
Gigabit Ethernet	2 ports
Wi-Fi	802.11a/b/g/n (20 Mb/sec device to modem throughput)
GPS	Internal (external via USB)
POWER (with optional AC/DC supply)	
AC	90-264VAC; 47-440 Hz (with external AC adapter)
DC	10-36 VDC (with external DC adapter)
Battery (airline compliant)	Internal, 15 min. runtime (auto switchover with loss of AC power)
MECHANICAL	
Stowed Dimensions	16.6 x 11.7x 4.1(inches)
Terminal Weight	25 lbs.
ENVIRONMENTAL	
Temperature	Operational: -32°C to +50°C Storage: -40°C to +60°C
Dust/Water Resistance	IP66



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Man-Portable VSAT



60 cm aperture



96 cm aperture

The Panther II is a Tri-Band, man-portable VSAT system, available in 60 and 96 centimeter (cm) apertures, and capable of both auto and manual acquisition. This system provides high-speed data communications for Internet, VPN connectivity and video transmission. This highly rugged VSAT system is light weight, able to be carried in a rucksack or airline checkable hard case, and offers high data rates over commercial and military satellites. The implementation of a single interface connection between transceiver and modem significantly reduces critical setup time.

The modular design of the Panther II allows the system to be configured to adapt to varying missions. The operator can easily change RF band, aperture size and acquisition method. To enable access to global networks, this system is offered with a number of embedded modem options. The Panther II integrates an elegant and simple manual pointing method using intuitive front panel visual indicators as well as ViewSat™-e, the integrated web-based GUI. This allows for easy, accurate, and quick acquisition without complex test equipment.

Options to the base system include the Auto-Acquire Kit (AAK) and high power Ku-Band transceiver. The AAK features the L3 antenna controller, utilizing the same ViewSat™-e interface as the manual point version. The controller and motors are housed in a self-contained weather-hardened package. The high power transceiver includes a 25W amplifier, allowing the Panther II to close larger data links and improve performance in disadvantaged areas.

SYSTEM FEATURES

- Modular design allows for easy RF band and aperture change
- Azimuth and elevation fine tune adjustments
- Auto-Acquisition or Manual Point
- No Fans - passively cooled
- Supports the iDirect keyline feature for power savings
- Easy to use push/pull connectors for rapid setup
- Integrated ViewSat™-e web-based GUI and front panel user interface
- External power supply provides UPS functionality and charges batteries (optional)
- High-power Ku-Band (optional)



Panther II with Auto-Acquire kit installed

ANTENNA/PEDESTAL				
Aperture Options	60cm parabolic, 8 piece 96cm parabolic, 8 piece			
Optics	Center-fed			
Acquisition	Auto or Manual			
Elevation	0° to +90°			
Azimuth	Manual acquisition: +/- 10° (fine tune) Auto acquisition: +/- 90°			
BAND SUPPORT				
X-, Ku-, Ka-				
RF PERFORMANCE				
Transmit (GHz)	7.90 to 8.40	13.75 to 14.50	29.0 to 31.0	
Receive (GHz)	7.25 to 7.75	10.95 to 12.75	19.2 to 21.2	
G/T (dB/K)	X-Band	Ku-Band	Ka-Band	
60cm	10.2	14.2	16.4	
96cm	13.8	17.8	20.0	
EIRP (dBW)	X-Band	Ku-Band	Ka-Band	
60cm	41.9	49.2 (13 W) 51.7 (25 W)	52.0	
96cm	45.5	52.9 (13 W) 55.4 (25 W)	55.6	
MODEM INTEGRATION				
iDirect e850mp, 950mp, Comtech DMD-1050TS, UHP 1100, ViaSat CBM-400, Linkabit MPM-2500				
INTERFACES				
Data Ports	2 LAN			
DC Input	18-36VDC			
Battery	BB-2590 CWB-150			
GPS	NMEA			
POWER (with optional AC/DC supply)				
AC	90-264VAC; 47-440Hz			
DC	10-48VDC			
Consumption	240VA			
MECHANICAL				
# of cases	1*			
Terminal Weight	60cm Manual	60cm Auto	96cm Manual	96cm Auto
	29 lbs.	45 lbs.	39 lbs.	55 lbs.
ENVIRONMENTAL				
Temperature	Operational: -32°C to +50°C Storage: -40°C to +60°C			
Wind Loading	25 mph, gusting to 40 mph, with anchors			
CERTIFICATIONS				
MIL-STD-810G, ARSTRAT (X- & Ka-Band),XTAR, Inmarsat Global Xpress				



Backpack and ruggedized hard case options



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* = baseline configuration

Flat-Panel VSAT



The DarkWing™ is a small form factor, lightweight, flat-panel VSAT. This system provides high-speed data communications for Internet, VPN connectivity and video transmission. This highly rugged VSAT is designed to fit in a backpack or laptop-sized case for ease of transport and missions that require inconspicuous travel.

Integration of the modem, RF components, and antenna into a single assembly greatly reduces setup time. In most cases the DarkWing can be setup and operational in less than five minutes.

The DarkWing acquires the satellite through an elegant and simple manual pointing process that features the L3 ViewSat-e GUI. This terminal uses an integrated GPS and compass to quickly provide operators a pointing solution along with visual indicators for pointing adjustments via the integrated, user-friendly front panel display.

System Features

- Small form factor, lightweight design
- Flat panel antenna
- Airline carry-on, built-in battery
- Integrated ViewSat-e Web-based GUI
- Front panel user interface
- External AC or DC power supply
- Integrated Wi-Fi access point
- iDirect Evolution and Velocity support
- IP66 rating

Benefits

- Executive/VIP travel, Military SATCOM
- Lightweight: 25 lbs.
- Low profile: Less than 3 inches thick
- Assisted pointing, setup in less than 5 minutes
- Designed for new HTS networks
- Sealed against weather and particles - for austere environments

Application

- Executive/VIP travel, Military SATCOM

Flat-Panel VSAT

ANTENNA	
Size	11.14 x 16.71 (inches), flat panel
Acquisition	Manual
Elevation	0° to +90°
BAND SUPPORT	
Ka-	
RF PERFORMANCE	
	Ka-Band
Transmit (GHz)	29.0 to 31.0
Receive (GHz)	19.2 to 21.2
Polarization	Circular (Transmit Right Hand/Receive Left Hand)
EIRP (dBW)	45.4 dBW (@ 29.0 GHz) 45.8 dBW (@ 30.0 GHz)
G/T (dB/K)	11.3 dB/K (@ 19.2 GHz) 11.7 dB/K (@ 20.2 GHz)
INTERFACES	
Gigabit Ethernet	2 ports
Wi-Fi	802.11a/b/g/n (20Mbit/sec device to modem throughput)
GPS	Internal (external via USB)
POWER (with optional AC/DC supply)	
AC	90-264VAC; 47-440Hz (with external AC adapter)
DC	10-36VDC (with external DC adapter)
Battery (airline compliant)	Internal, 15 min.run time (auto switchover with loss of AC power)
MECHANICAL	
Stowed Dimensions	17.00 x 11.20 x 2.87 (inches)
Terminal Weight	25 lbs.
ENVIRONMENTAL	
Temperature	Operational: -32°C to +50°C Storage: -40°C to +60°C
Dust/Water Resistance	IP66



designed to fit in a laptop sized travel bag

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85cm Commercial Ka-Band Global Xpress VSAT



The industry renowned Cheetah flyaway VSAT system is now available in commercial Ka-Band for applications over the Inmarsat Global Xpress (GX) satellite constellation. It is a fully auto-acquire system that provides high-speed data communications for Internet, VPN connectivity, video transmission, and emergency response.

This light-weight solution can be deployed in a matter of minutes utilizing the auto-acquire antenna system, and ViewSat™-e web-based GUI.

The GX Ka Cheetah comes standard in two airline checkable, wheeled hard cases. Each case weighs less than 70 lb. and includes a fully auto-acquire 85cm parabolic antenna system, Outdoor Unit with embedded iDirect CX-751 or e850MP modem, 5W commercial Ka-Band BUC/SSPA, controller/processor and Ethernet switch. The GCS ViewSAT™-e software provides monitor and control of the terminal through the use of an intuitive web-based Graphical User Interface (GUI).

FEATURES

- Proven auto-acquisition Roto-Lok™ design with zero backlash
- Embedded iDirect CX-751 or e850MP Modem
- Field connectivity over CAT-5 cable
- Renowned GCS ViewSAT-e monitor & control software simplifies deployment and operation
- Designed to operate on Inmarsat Global Xpress



85cm Commercial Ka-Band Global Xpress VSAT

ANTENNA/PEDESTAL	
Reflector	85cm Parabolic (circular), 6pc., segmented carbon fiber
Optics	Offset, Prime Focus
Acquisition	Auto
Elevation	+10° to +90°
Azimuth	+90° to -90°
BAND SUPPORT	
Ka- Commercial	
RF PERFORMANCE	
Transmit (GHz)	29.0 to 30.0
Receive (GHz)	19.2 to 20.2
EIRP (dBW)	52.6 (5W)
G/T (dB/K)	19.2
MODEM INTEGRATION	
iDirect CX-751 or e850MP	
INTERFACES	
# of ports	With CX-751 Modem: 2 Data LAN + 1 Control LAN With e850MP Modem: 2 Data/Control LAN
POWER	
AC	100-240VAC; 50-60Hz
DC	18-36VDC Input (with optional DC/DC supply)
Consumption	210VA
MECHANICAL	
# of cases	2 airline checkable hard cases*
System Weight per case	Antenna System case: <70 lb. RF System case: <70 lb.
Case Dimensions	Antenna System case: 24.6 x 19.7 x 14.4 (inches) RF System case: 24.6 x 19.7 x 14.4 (inches)
ENVIRONMENTAL	
Temperature	Operational: -25°C to +55°C Storage: -40°C to +85°C
Wind Loading	25 mph, gusting to 40 mph, with anchors
CERTIFICATIONS	
Inmarsat Global Xpress	

* Subject to individual airline regulations



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This document consists of basic marketing information that is not defined as technical data under EAR Part 772. Data contained within this document is summary in nature and subject to change at any time at L3 Technologies' discretion.

Rev. H

1.2M Tri-Band VSAT



The Hawkeye III Lite from L3 GCS provides high-speed data communications for Internet, VPN connectivity and video transmission.

This light-weight solution can be deployed in a matter of minutes utilizing the auto-acquire antenna system, ViewSat™-e GUI, and the GCS Outdoor Unit (ODU). The modular design of the Hawkeye III series VSATs make it possible for us to offer RF Band kits for quick and easy conversion from one band to another with just a simple feed boom change.

The complete system consists of two or three rugged, hard-sided cases which house the ODU, auto-acquire antenna pedestal, controller, 6-segment carbon fiber circular reflector, boom and feed, and LNB devices for global coverage.

SYSTEM FEATURES

- Modular design allows for easy RF band change
- Light-weight two or three case design (as determined by system configuration)
- Robust auto-acquisition pedestal to support Ku-, X- and Ka-Bands
- Multiple embedded modem options
- Integrated ViewSat-e web-based GUI and front panel interface
- Common architecture to GCS Hawkeye™ III VSATs for interoperability between systems
- 4 LAN ports or 3 LAN ports plus DSL option

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



1.2M Tri-Band VSAT

ANTENNA/PEDESTAL				
Reflector	1.2M parabolic, 6pc., segmented carbon fiber			
Optics	Offset, prime focus, 0.6 F/D			
Acquisition	Auto			
Elevation	+7° to +90°			
Azimuth	+90° to -90°			
BAND SUPPORT				
X-, Ku-, Ka- mil, Ka- wideband, Appendix 30B Ku				
RF PERFORMANCE				
	X-	Ku-	Ka- mil	Ka- WB
Transmit (GHz)	7.90 to 8.40	13.75 to 14.50	30.0 to 31.0	29.0 to 31.0
Receive (GHz)	7.25 to 7.75	10.95 to 12.75	20.2 to 21.2	19.2 to 21.2
EIRP (dBW)	53.9 (40 W)	58.2 (40 W)	60.9 (20 W)	60.6 (20 W)
G/T (dB/K)	16.3	20.5	23.0	23.0
Appendix 30B Ku performance values available upon request				
MODEM INTEGRATION				
iDirect 900, Comtech DMD1050TS, ViaSat CBM-400, Linkabit MPM-2500, UHP 1100				
INTERFACES				
# of ports	4 LAN or 3 LAN plus DSL option			
POWER				
AC	90-264VAC; 47-440Hz			
Consumption	626VA			
MECHANICAL				
	2 case solution		3 case solution	
# of cases	2		3	
System Weight per case	Case 1: <100 lbs. Case 2: <100 lbs.		Case 1: <70 lbs. Case 2: <70 lbs. Case 3: <70 lbs.	
Case Dimensions	Case 1: 36.8 x 19.5 x 23.3 (inches) Case 2: 39.4 x 16 x 23.8 (inches)		Case 1: 36.8 x 19.5 x 23.3 (inches) Case 2: 36.8 x 19.5 x 23.3 (inches) Case 3: 39.4 x 16 x 23.8 (inches)	
ENVIRONMENTAL				
Temperature	Operational: -32°C to +55°C Storage: -46°C to +71°C			
Wind Loading	30 mph, gusting to 45 mph, with anchors			
CERTIFICATIONS				
MIL-STD-810G, ARSTRAT (X- & Ka-Band), Inmarsat Global Xpress				



OUTDOOR MODEM (ODU)

- MIL-STD-810G tested
- Rugged design for outdoor usage
- Embedded Ethernet switch
- Intuitive front panel display
- Optional beacon receiver

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Multi-Band VSAT Terminal



The Hawkeye III Series VSAT terminals from L3 GCS provides high-speed data communications for Internet, VPN connectivity and video transmission.

The Hawkeye III gives the user the ability to switch between bands and apertures with the simple swap out of a modular band kit. The Hawkeye III terminals range in antenna size from 1.6M to 2.4M. Frequency bands supported are Ka-, Ku-, X- and C-Band utilizing an enhanced ODU to eliminate reconfiguration and allow commonality of control. A simple swap of the feed boom assembly is all that is required to switch between bands. The Hawkeye series VSATs are proven reliable, lightweight and easy to operate.

SYSTEM FEATURES

- Enhanced ODU
- Segmented carbon fiber reflector offers high performance and light weight
- Robust auto-acquisition to support Ku-, X-, Ka-, and C-Bands
- Interchangeable Feed Boom design allows for easy RF Band change
- Interchangeable reflector design allows user to switch easily between aperture sizes
- 4 LAN ports or 3 LAN ports plus DSL option
- MIL-STD-810G tested

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



Multi-Band VSAT Terminal

ANTENNA/PEDESTAL			
Reflector	1.6M, 2.0M, or 2.4M segmented carbon fiber		
Acquisition	Auto		
Elevation	+0° to +90°		
Azimuth	+200° to -200°		
BAND SUPPORT			
X-, Ku-, Ka- mil, Ka- WB, C-			
OPERATING FREQUENCIES			
	Transmit (GHz)		Receive (GHz)
X-	7.90 to 8.40		7.25 to 7.75
Ku-	13.75 to 14.50		10.95 to 12.75
Ka- mil	30.0 to 31.0		20.2 to 21.2
Ka-WB	29.0 to 31.0		19.2 to 21.2
C-	5.85 to 6.425		3.625 to 4.20
RF PERFORMANCE			
EIRP (dBW)	1.6M	2.0M	2.4M
X-	57.3	59.2	60.8
Ku- (40W)	60.3	62.3	63.8
Ka- mil	66.0	67.9	69.5
Ka-WB	61.6	63.6	65.2
C-		55.8	57.3
G/T (dB/W)	1.6M	2.0M	2.4M
X-	18.2	20.1	21.7
Ku- (40W)	22.2	24.6	26.2
Ka- mil	25.2	27.1	28.7
Ka-WB	25.2	27.1	28.7
C-		17.0	18.6
MODEM INTEGRATION			
iDirect 900, Comtech DMD1050TS, ViaSat CBM-400, Linkabit MPM-2500, UHP 1100			
INTERFACES			
# of ports	4 LAN or 3 LAN plus DSL option		
POWER			
AC	90-264VAC; 47-440Hz		
Consumption	700VA		
MECHANICAL			
	1.6M	2.0M	2.4M
# of cases	6	7 (8 for C-Band)	7 (8 for C-Band)



OUTDOOR MODEM (ODU)

- MIL-STD-810G tested
- Rugged design for outdoor usage
- Embedded Ethernet switch
- Intuitive front panel display
- Optional beacon receiver

ENVIRONMENTAL

Temperature	Operational: -32°C to +55°C Storage: -46°C to +71°C
Wind Loading	30 mph, gusting to 45 mph, with anchors

CERTIFICATIONS

MIL-STD-810G, ARSTRAT (X- & Ka-Band)

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