Norsat International Inc.

GLOBE
Trekker™ 2.0

INTELLIGENT.
EASY TO USE.
TOUGH.

HD ready
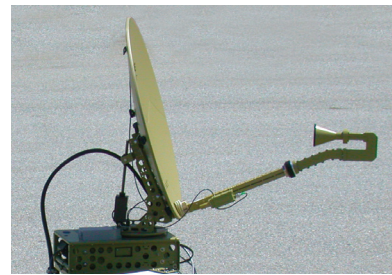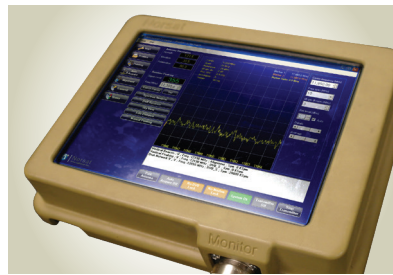
The GLOBETrekker™ 2.0 is the world's most intelligent fly-away satellite terminal. With a modular architecture that enables easy component swapping in the field, a simple one touch interface, and intelligent LinkControl software for automatic satellite acquisition, the GLOBETrekker is both powerful and easy to use. Built to military specifications, with a suite of integrated modems or video encoders, and lightweight packaging compact enough for airline check in, operators rely on the GLOBETrekker for mission critical communications virtually anywhere on the planet.

WHAT'S NEW?

The GLOBETrekker™ 2.0 has been re-engineered to better meet your needs and the latest developments include:

One-touch interface	Easy operation and rapid deployment - acquire a satellite in less than 5 minutes
Universal LNB	Automated frequency selection for worldwide deployments
Elevated electronics	Quad-pod legs keep electronics well above any running water, mud or snow
Built-in troubleshooting	Visible alarms guide users through problem resolution
Modular architecture	Components are field replaceable for easy maintenance
USB recovery tool	Rapid save and recovery of system software
Multi-band capability	Ku, X, and Ka band kits available - field swappable in under10 minutes
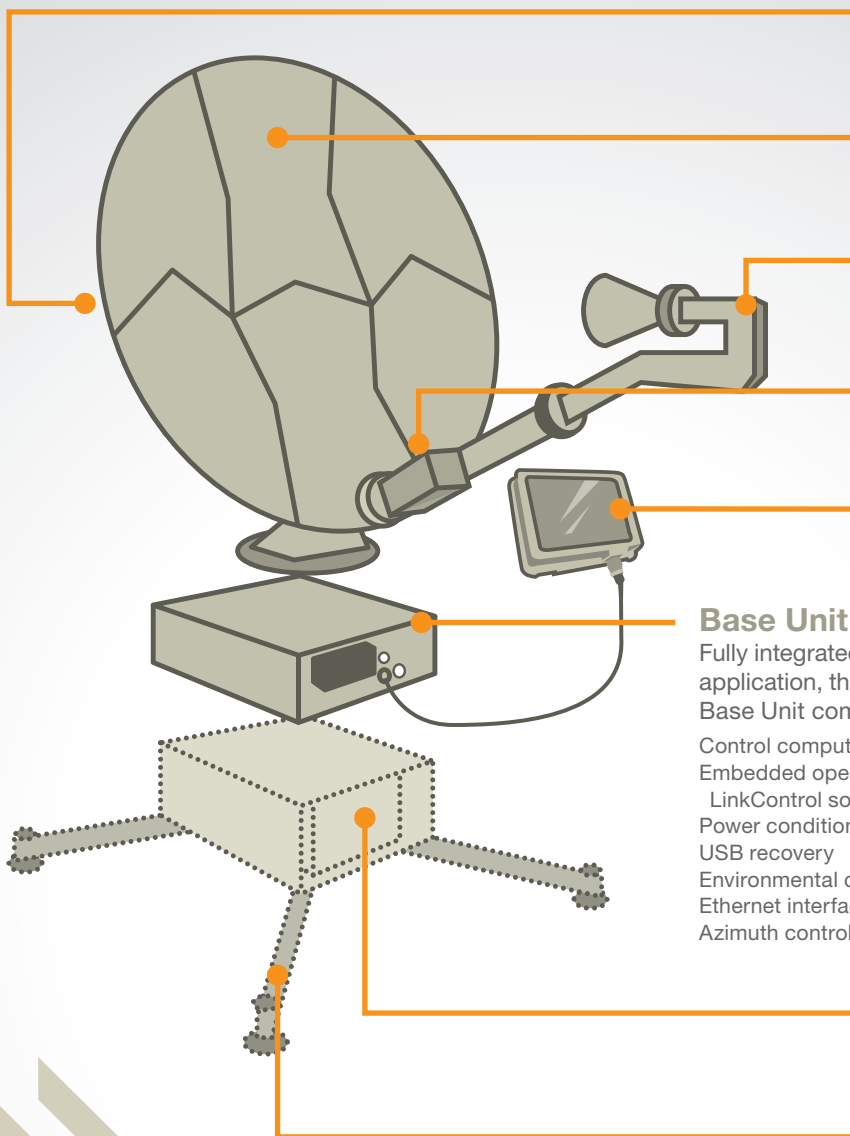
BUC
RF package can be field swapped to quickly change the frequency bands and powers.

6-Segment Carbon Fibre Antenna
Lightweight, portable and easy to assemble. Available in 1.0 or 1.2m.

2-Segment Boom Arm
Fits into compact packaging. Patented integrated filters are included for X-band systems.

Universal LNB
Functional in multiple frequency bands for easy frequency switching in the field

Sunlight Readable Display
8.4" TFT LCD sceen, 1600 NITS, & SVGA (800 x 600)

Base Unit
Fully integrated with the modem or encoder/modulator appropriate for your application, the Base Unit can also be easily removed from the System. Base Unit components include:

Control computer	Motorized Positioner
Embedded operating system with LinkControl software	DVB receiver
	LNB controller
Power conditioning	Spectrum analyzer
USB recovery	Compass
Environmental control unit	GPS
Ethernet interface	Inclinometer
Azimuth controller unit	

Components Chassis (optional)
Houses Power Amplifiers up to 400W and other large components

Quad-pod Legs
Keep equipment well above running water, snow & mud

SPECS

	X-Band (60W BUC*)		Ku-Band (40W BUC*)		Ka-Band (4W BUC*)	
	1.0m antenna	1.2m antenna	1.0m antenna	1.2m antenna	1.0m antenna	1.2m antenna
G/T	14.7 dB/K	17.0 dB/K	17.6 dB/K	20.2 dB/K	20.8 dB/K	21.5 dB/K
EIRP*	53.3 dBW	55.1 dBW	55.4 dBW	57.6 dBW	53.5 dBW	55.2 dBW
Tx Gain (mid band)	>36.5 dBi	>38.3 dBi	>41 dBi	>43.0 dBi	>48.0 dBi	>49.7 dBi
Rx Gain (mid band)	>36.0 dBi	>37.6 dBi	>39 dBi	>41.0 dBi	>44.0 dBi	>46.0 dBi
Polarization	Circular		Linear Cross-Pol		Circular / Linear	
Cross pol isolation	N/A		30 dB on axis		Circular: 35dB on axis	
Axial Ratio	<1.2 dB in Tx Band		N/A		<1.0 dB in Tx band (military) <1.5 dB in Tx band (commercial)	
Elevation adj	5° to 90°, Motorized, (resolution <0.1°)					
Azimuth adj	>±160°, Motorized, (resolution <0.1°)					
Transmit frequency	7.9 - 8.4 GHz		13.75 GHz - 14.5 GHz		30 - 31 GHz (military) 29.5 - 30 GHz (commercial)	
Receive frequency	7.25 - 7.75 GHz		10.7 - 12.75 GHz		18.2 - 21.2 GHz	
Input frequency	950 - 1450 MHz		950 - 1700 MHz		950 - 1950 MHz	
Operating Temp	-30°C to +55°C, meets MIL-STD- 810G					
Rainfall	102 mm/h Operational, 360 mm/h Survival, meets MIL-STD- 810G					
Windspeed	50 km/h Operational, 100 km/h Survival					

* Other power options available

LinkControl Software

Installed on every GLOBETrekker system, LinkControl™ software is the industry's most intuitive and powerful suite of satellite pointing tools. With an intuitive GUI, LinkControl seamlessly integrates the various hardware components and automates the process of satellite acquisition. Users have full control of all integrated components including BUC, LNB, modem, or encoder modulators. Through user configured LinkProfiles and a customizable satellite almanac, LinkControl enables users to plan operations, rapidly deploy systems and conduct remote diagnostics. Features include:

- Auto-acquire of satellite through a one-button software interface
- Remote access from anywhere in the world via TCP/IP
- Built In troubleshooting and resolution system
- Closed loop power control to account for environmental variation
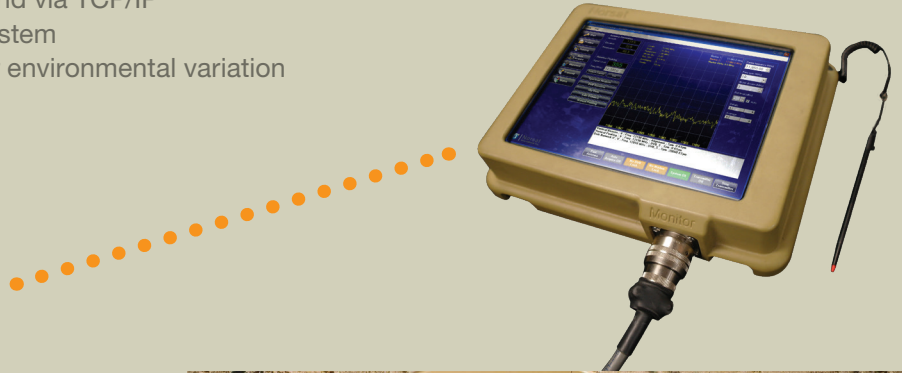
RUGGED. RELIABLE. TOUGH.

The GLOBETrekker™ 2.0 is a battle tested fly-away terminal with unmatched durability. Currently deployed by militaries around the world, the GLOBETrekker includes all weather equipment enclosures (IP66 compliant) and for rapid deployment in uneven terrain. Tested to meet MIL-STD 810G standards, and packaged in IATA compliant airline cases, the GLOBETrekker is ideal for short notice military and commercial deployments, anywhere in the world.

EASY TO USE

With an intelligent, integrated design, the GLOBETrekker™ 2.0 is powerful and easy to use for operators of all experience levels.   The system can be completely assembled without tools in mere minutes, and a one touch interface enables rapid, easy deployment. Auto-acquisition technology ensures accurate, consistent satellite acquisition and LinkControl's software provides an intuitive user interface for setting up LinkProfiles and monitoring operation.   Easy to set up and deploy, the GLOBETrekker leaves you free to focus on your mission.

P1dB	X-Band Power Options:	Ku-Band Power Options:	Ka-Band Power Options:
4W		✓	✓
6W		✓	
8W		✓	
10W	✓		✓
16W		✓	
20W	✓	✓	✓
25W			✓
40W	✓	✓	
50W			✓
60W	✓		
80W		✓	
100W	✓		
125W	✓		
150W	✓		
175W	✓		

Antenna	X-Band	Ku-Band	Ka-Band
Antenna Platform	Motorized Elevation over Azimuth Mounted on Base Unit	Motorized Elevation over Azimuth Mounted on Base Unit	Motorized Elevation over Azimuth Mounted on Base Unit
Overrides	Manual (Az/El)	Manual (Az/El/Pol)	Manual (Az/El) Pol Optional

Transmit	X-Band	Ku-Band	Ka-Band
Reference Signal Frequency	external 10 MHz -5 to +5 dBm (supplied by Base Unit)	external 10 MHz -5 to +5 dBm (supplied by Base Unit)	external 10 MHz -5 to +5 dBm (supplied by Base Unit)
Rated Power (1dB C.P.)	60W (other options available)	40W (other options available)	4W (other options available)
Power Control	0.1 dB res, 1 dB accuracy modem dependent	0.1 dB res, 1 dB accuracy modem dependent	0.1 dB res, 0.6 dB accuracy modem dependent
Max. SSG Variation over any narrow band	±1 dB per 54 MHz	±1 dB per 54 MHz	±1 dB per 54 MHz
Spectral Regrowth at rated pwr.	-26 dBc	-26 dBc	-26 dBc

Receive	X-Band	Ku-Band	Ka-Band
LNB Noise Figure (typical)	0.7 dB	0.8 dB	1.3 dB
LO Stability Maximum (over temp)	±10 KHz or ext. ref.	±10 KHz or ext. ref.	±40 kHz or ext. ref.
Phase noise (SSB maximum) (SSB maximum)	-75 dBc/Hz at 1 kHz -85 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz	-70 dBc/Hz at 1 kHz -80 dBc/Hz at 10 kHz -85 dBc/Hz at 100 kHz	-75 dBc/Hz at 1 kHz -80 dBc/Hz at 10 kHz -100 dBc/Hz at 100 kHz
Output P1dB	10 dBm	5 dBm	3.1 dBm

Modem & HD Encoder/Modulator Options

GLOBETrekker 2.0 is compatible with a variety of modems and encorders, including those made by the following manufacturers:

Comtech

iDirect

Hughes

Radyne

Norsat MPEG 2/4 HD/SD Encoders Available

Accessories Options

30 meter IFL cable

2 kVa Generator

Lightning protection kit

Anti icing kit

3RU rackmount fibre optic base

Fibre optics package

Vehicle power kit (MIL-STD 1275B)

Ruggedized Laptop Controller with Integrated Linkcontrol Software

Ruggedized Sunlight Readable Display

800 x 600 SVGA resolution

LED Backlight

High Shock & Vibration Resistance

Low Power Consumption

High Uniformity

Low EMI Noise

Wide Dimming

1600 NITS

Environmental

Temperature			
Operational		-30°C to +55°C	MIL-STD-810G
Survival		-40 to +70°C	MIL-STD-810G
Rainfall			
Operational		102 mm/h	MIL-STD-810G
Survival		360mm/h	MIL-STD-810G
Storage Temp		-40°C to +70°C	
Weatherproofing			MIL-STD-810G
Windspeed			
Operational		50 km/h	MIL-STD-810G
Survival		100 km/h	MIL-STD-810G
Humidity		5-95% condensing	IEC 60068 2-78
Vibration			MIL-STD-810G
Loose Cargo Vibration			MIL-STD-810G
Transit Drop			MIL-STD-810G
Blowing Dust & Sand			MIL-STD-810G
Blowing wind & rain			MIL-STD-810G
Random vibration			MIL-STD-810F
Shock			MIL-STD-810G
Drop & topple			MIL-STD-810G
Free fall			MIL-STD-810G
Salt mist			MIL-STD-810G

Power Supply

Prime Power 24V DC

AC 110/220 VAC

50 / 60 Hz (Stable to 90 VAC)

Packaging

Ruggedized hardcase available. Most system configurations are available with IATA Compliant packaging (cases ≤32 kg each)

Packaging options available in as few as 2 cases.

Request A Quote