Norsat International Inc.

Pioneering the **Broadband Frontier**

30 Years of Excellence SINCE 1977

GLOBETrekker™ 1.0m Ku Band RADE

The GLOBETrekker™ represents the next generation of portable satellite systems. This system is fully automated and integrated, flexible for both non-technical and advanced users.

Ultra Portable

The Norsat GLOBETrekker™ is a highly integrated system which includes a carbon fiber antenna, motorized feed assembly, LNB, BUC, motorized azimuth/elevation superstructure, built-in inclinometer, compass, GPS, spectrum analyzer DVB-S receiver, Ethernet switch, DC-DC converter, shock protected chassis, and a system controller including a wired display with software and a graphical user interface. Sleekly packaged in a 2 case solution, the Norsat GLOBETrekker™ is also available in an optional 3 case IATA compliant configuration.

Intelligent

The Norsat GLOBETrekker™ comes equipped with 'built in intelligence' which relieves the user from lower level tasks. An intuitive graphical alignment wizard leads the user through the process pointing, acquiring and peaking on a satellite. The intelligence also enables the system to operate unattended in harsh and hostile conditions.

Tough

The Norsat GLOBETrekker™ has been extensively tested to withstand vibrations and shocks. It is specifically designed to operate in harsh and hostile conditions characteristic of military missions or natural disaster zones.

Ultra Portable

- Man Portable
- Airline Checkable
- Quick Assembly without Tools

Intelligent

- Auto-Acquire
- Intuitive Interface
- Remote Operation

Tough

- Rugged Design
- Shock Protected
- Environmental Controls

Norsat International Inc.

United States
+1 410 263 8165
+1 618 606 0135

Canada
+1 604 821 2811

Asia Pacific
+1 604 821 2813

South America
+1 604 821 2835
+1 618 606 0135

Online
sales@norsat.com
www.norsat.com

PUB000286 v1.1

GLOBETrekker™ 1.0m Ku Band RADE

Antenna

Transmit Frequency	13.75 GHz - 14.5 GHz
Receive Frequency	10.7 GHz - 12.75 GHz
EIRP	>49.5 dBW (8W)
G/T	19.5 dB/K T_{ant} = 46°K, El = 20°
Antenna	1.0 m carbon fiber segmented (6 pieces)
Antenna Tx Gain	>41.5 dBi
Antenna Rx Gain	>40.0 dBi
Antenna Platform	Motorized Elevation over Azimuth Mounted on Baseband Unit
Polarization	Linear Cross Pol Motorized (range > 180°, resolution <0.10°)
Elevation Adj.	5° to 90°, Motorized, (resolution <0.1°)
Azimuth Adj.	±110°, Motorized, (resolution <0.1°)
Overrides	Manual (Az/El/Pol)

Pointing Tools

Onboard Spectrum Analyzer, DVB Receiver, Beacon Detector, Compass, Inclinometer, GPS
Norsat proprietary AutoAcquire LinkControl software

Transmit

Frequency Range	
Output	13.75 GHz - 14.5 GHz
Input	950 - 1700 MHz
LO Frequency	12800 MHz
Reference Signal Frequency	10 MHz (supplied by Baseband)
10 MHz power level	-5 to +5 dB
Reference Input Impedance	50 Ω
Output Power	
Rated Power (P1dB) @ Amplifier Flange (minimum)	>8W
Gain	
Small Signal, typical	70dB
Maximum SSG Variation Over Any Narrow Band	±0.5 dB per 36MHz
Spectral Regrowth at Rated Power	-26 dBc

Receive

Frequency Band (RF Input)	10.7 - 12.75 GHz (switchable bands)
IF Frequency	950 - 1700 MHz
LNB Noise Figure (typical)	0.8 dB
LNB Noise Temp	> 59°K
Phase noise (SSB) maximum	-73 dBc/Hz at 1kHz -78 dBc/Hz at 10kHz -100 dBc/Hz at 100kHz
Input/Output VSWR maximum	2.2 : 1
Conversion gain (typical)	60 dB
Output P1dB minimum	+15 dBm
Power requirements	13/18 V
Current drain maximum	350 mA

Baseband

Common Features	Power Conditioning
	Environmental Control
	USB Interface
	Ethernet Interface
	Single Board Computer
	Built-in Ethernet Switch
	Wired Sunlight Readable Display
	External Modem

Power Supply

Prime Power	24V DC 400 VA
Optional AC	110/220 VAC (Universal) 47 - 63 Hz

Options

De Ice Kit
Grounding Kit
Laptop
Vehiclepower kt (MIL STD 1275D)

Environmental

Operating Temp	-30°C to +55°C } IEC 60068-2-1
Storage Temp	-40°C to +70°C } IEC 60068-2-2
Weatherproofness	IP 65
Wind Speed	50 km/h Operational 72 km/h Survival (with ballast/tie downs)
Humidity	5-95% condensing
Random Vibration	Complies with IEC 60068-2-64 Fdb
Shock	Complies with IEC 60068-2-27 Ea
Bump	Complies with IEC 60068-2-29 Eb
Drop & Topple	Complies with IEC 60068-2-31 Ec
Free Fall	Complies with IEC 60068-2-32 Ed
Soft Mist	Complies with IEC 60068-2-52
Sand & Dust	Complies with IEC 60068-2-68

Packaging

	Case Weight (kg)	Case Dimensions (cm)
Case 1	35	80 x 52 x 40
Case 2	35	80 x 52 x 40

Norsat International Inc.

United States
+1 410 263 8165
+1 618 606 0135

Canada
+1 604 821 2811

Asia Pacific
+1 604 821 2813

South America
+1 604 821 2835
+1 618 606 0135

Online
sales@norsat.com
www.norsat.com