



Norsat
International Inc.

Intelligent Satellite Solutions



GLOBETrekker SNG™

The GLOBETrekker SNG™ represents the next generation of portable SNG systems. The highly integrated terminal is capable of broadcast quality MPEG-2 video (up to 10mbps). It is fully automated and is the industry's only comprehensive SNG system which meets the new stringent checked baggage restrictions.

Intelligent

The Norsat GLOBETrekker SNG™ 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 of pointing, acquiring and peaking a satellite. The intelligence also enables the system to operate unattended in harsh and hostile conditions.

Ultra Portable

The Norsat GLOBETrekker SNG™ 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, MPEG-2 encoder and DVB-S modulator; built-in spectrum analyzer, DVB-S receiver, Ethernet switch, DC-DC converter, shock protected chassis; a system controller including a wired display with software and a graphical user interface. Sleekly packaged in a rugged, self-contained IATA-friendly wheelable cases, the system can be packaged such that it meets the new stringent checked baggage weight and linear length restrictions.

Tough

The Norsat GLOBETrekker SNG™ 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
- Fits in Small Vehicles
- Helicopter Friendly
- Quick Assembly without Tools

Intelligent

- Auto-Acquire
- Intuitive Graphical Interface
- Remote Operation
- Fully Integrated

Tough

- Built Rugged
- Shock Protected
- Environmental Controls
- Hermetically Sealed Electronics

GLOBETrekker SNG Flex™

RF/Antenna (Outdoor Unit)

Transmit Frequency	13.75 GHz – 14.50 GHz
Receive Frequency	10.95 GHz – 12.75 GHz
G/T	19.4 dB/K (assumes Tant = 40 K, 20 deg elevation)
LNB Noise Figure	0.8 dB
Antenna	1.0 m carbon fiber segmented (6)
Antenna Tx Gain	41.7 dBi (mid band)
Antenna Rx Gain	40.0 dBi (mid band)
Antenna Platform	Motorized Elevation over Azimuth Mounted on Baseboard Unit
Elevation Adj.	10° to 90°, Motorized, resolution <0.1°
Azimuth Adj	±170°, Motorized, resolution <0.1°
Polarization	Linear, Cross Pol., Motorized resolution <0.25°

Baseband

Services	DVB-S Video and Audio Transmission
Video Standards	NTSC or PAL
Video Encoding	MPEG-2 (ISO/IEC 13818)
Encoder Latency	250 / 80 ms Normal / Low (Opt.)
Video Bit Rates	1.5 - 10 Mbps (inquire about other rates)
Chroma Sampling	4:2:0 / 4:2:2 (Opt.)
Video Inputs	1 x Composite (BNC) 1 x SDI with embedded audio (BNC)
Audio Channels	4
Audio Encoding	MPEG Layer 2
Audio Bit Rates	128 - 384 Kbps
Audio Inputs	4 x Balanced (XLR)
Modulator	DVB-S (EN 300421) / QPSK Modulation
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Interfaces	L-band Tx (from external modem) L-band Rx (to external modem)

System Control and Software

Software:	Patent-Pending Auto Acquire Application Master Control Application Satellite Almanac Antenna Alignment Wizard GPS Interface Beacon/Carrier Detector Spectrum Analyzer DVB-S Receiver Service Control Application Status, Alarms, Logging and Help Files
Operating System:	Microsoft Windows® XP Professional Platform Industrial Grade Single Board Computer
Wired Display	Included

Environmental

Operating Temp	-30°C to +50°C
Rainfall	180 mm/h Operational. 360 mm/h Survival
Wind Speed	50 km/h Operational 100 km/h Survival (with ballast/tie downs)
Humidity	5-95% condensing
Shock/Vibration	Designed to meet MIL-STANDARD-810F

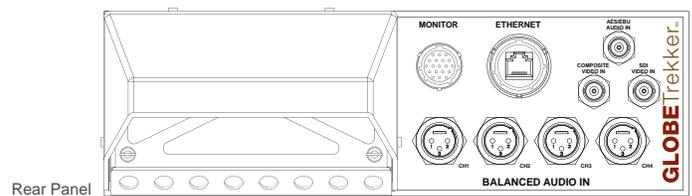
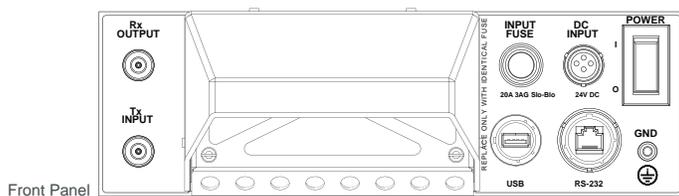
Power

Prime Power	24V DC (nominal) Optional AC 110/220 VAC, 50 / 60 Hz (Stable to 90 VAC)
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Packaging

Cases	2 (meets new airline regulations for checked baggage allowance)
Weight	< 23kg / 50lbs ea. (packaged)*
Linear Length	L + W + H < 61 inches / 155 cm

*applies only to certain system configurations/options



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Online

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GLOBETrekker SNG Standard™

RF/Antenna (Outdoor Unit)

Transmit Frequency	13.75 GHz – 14.50 GHz
Receive Frequency	10.95 GHz – 12.75 GHz
RF Power	40W at 1 dB C.P. (200W TWTA optional)
EIRP	56.4 dBW
G/T	19.4 dB/K (assumes Tant = 40 K, 20 deg elevation)
LNB Noise Figure	0.8 dB
Antenna	1.0 m carbon fiber segmented (6)
Antenna Tx Gain	41.7 dBi (mid band)
Antenna Platform	Motorized Elevation over Azimuth Mounted on Baseboard Unit
Elevation Adj.	10° to 90°, Motorized, resolution <0.1°
Azimuth Adj	±170°, Motorized, resolution <0.1°
Polarization	Linear, Cross Pol., Motorized resolution <0.25°

Baseband

Services	DVB-S Video and Audio Transmission
Video Standards	NTSC or PAL
Video Encoding	MPEG-2 (ISO/IEC 13818)
Encoder Latency	250 / 80 ms Normal / Low (Opt.)
Video Bit Rates	1.5 - 10 Mbps (inquire about other rates)
Chroma Sampling	4:2:0 / 4:2:2 (Opt.)
Video Inputs	1 x Composite (BNC) 1 x Composite (RCA) 1 x SDI with embedded audio (BNC) (Opt.)
Fiber Optic AV	mux / demux (opt)
Audio Encoding	MPEG Layer 2
Audio Channels	2
Audio Bit Rates	128 - 384 Kbps
Audio Inputs	2 x Balanced (XLR) 2 x Unbalanced (RCA) 1 x AES/EBU (XLR) (Opt.)
Modulator	DVB-S (EN 300421) / QPSK Modulation
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Interfaces	L-band Tx (from external modem) L-band Rx (to external modem)

System Control and Software

Software:	Patent-Pending Auto Acquire Application Master Control Application Satellite Almanac Antenna Alignment Wizard GPS Interface Beacon/Carrier Detector Spectrum Analyzer DVB-S Receiver Service Control Application Status, Alarms, Logging and Help Files
Operating System:	Microsoft Windows® XP Professional
Platform	Industrial Grade Single Board Computer
Wired Display	Included

Environmental

Operating Temp	-30°C to +50°C
Rainfall	180 mm/h Operational. 360 mm/h Survival
Wind Speed	50 km/h Operational 100 km/h Survival (with ballast/tie downs)
Humidity	5-95% condensing
Shock/Vibration	Designed to meet MIL-STANDARD-810F

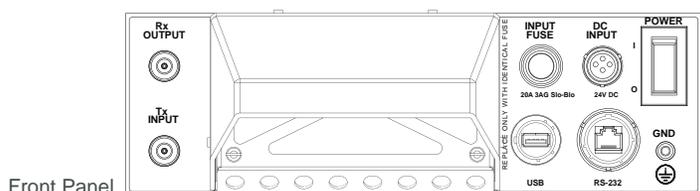
Power

Prime Power	24V DC (nominal) Optional AC 110/220 VAC, 50 / 60 Hz (Stable to 90 VAC)
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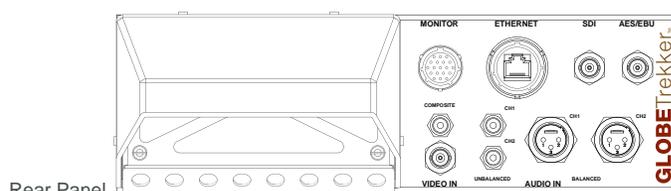
Packaging

Cases	3
Weight	< 23kg / 50lbs ea. (packaged)
Linear Length	L + W + H = 61 inches / 155 cm

*applies only to certain system configurations/options



Front Panel



Rear Panel



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GLOBETrekker SNG Professional™

RF/Antenna (Outdoor Unit)

Transmit Frequency	13.75 GHz – 14.50 GHz
Receive Frequency	10.95 GHz – 12.75 GHz
RF Power	40W at 1 dB C.P. (200W optional)
EIRP	56.4 dBW
G/T	19.4 dB/K (assumes Tant = 40 K, 20 deg elevation)
LNB Noise Figure	0.7 dB
Antenna	1.0 m carbon fiber segmented (6)
Antenna Tx Gain	41.7 dBi (mid band)
Antenna Platform	Motorized Elevation over Azimuth Mounted on Baseboard Unit
Elevation Adj.	10° to 90°, Motorized, resolution <0.1°
Azimuth Adj	±170°, Motorized, resolution <0.1°
Polarization	Linear, Cross Pol., Motorized resolution <0.25°

Baseband

Services	DVB-S Video and Audio Transmission
Video Standards	NTSC or PAL
Video Encoding	MPEG-2 (ISO/IEC 13818)
Encoder Latency	250 / 80 ms Normal / Low (Opt.)
Video Bit Rates	1.5 - 10 Mbps (inquire about other rates)
Chroma Sampling	4:2:0 / 4:2:2 (Opt.)
Video Inputs	1 x Composite (BNC) 1 x SDI with embedded audio (BNC) (Opt.)
Fiber Optic AV	mux / demux (opt)
Audio Encoding	MPEG Layer 2
Audio Channels	2
Audio Bit Rates	128 - 384 Kbps
Audio Inputs	2 x Balanced (XLR) 2 x Unbalanced (RCA) 1 x AES/EBU (XLR) (Opt.)
Modulator	DVB-S (EN 300421) / QPSK Modulation
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Interfaces	L-band Tx (from external modem) L-band Rx (to external modem)

System Control and Software

Software:	Patent-Pending Auto Acquire Application Master Control Application Satellite Almanac Antenna Alignment Wizard GPS Interface Beacon/Carrier Detector Spectrum Analyzer DVB-S Receiver Service Control Application Status, Alarms, Logging and Help Files
Operating System:	Microsoft Windows® XP Professional
Platform	Industrial Grade Single Board Computer
Wired Display	Included

Environmental

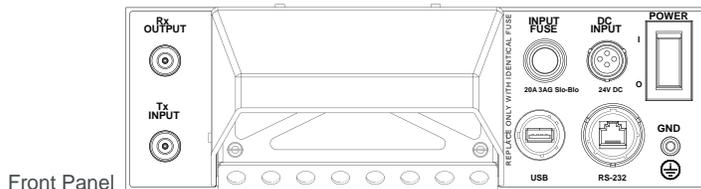
Operating Temp	-30°C to +50°C
Rainfall	180 mm/h Operational. 360 mm/h Survival
Wind Speed	50 km/h Operational 100 km/h Survival (with ballast/tie downs)
Humidity	5-95% condensing
Shock/Vibration	Designed to meet MIL-STANDARD-810F

Power

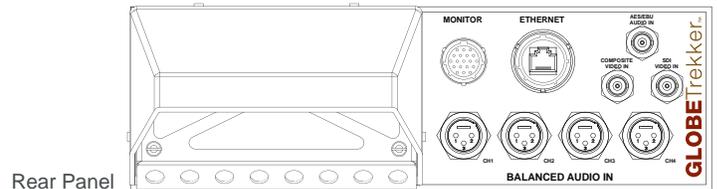
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Packaging

	Option1 (Military): > 32kg/case	Option2: < 32kg/case	Option3: < 23kg/case
Number of Cases	2	3	4
Case Dimensions (LxWxH - cm)	73.7 x 45.7 x 34.9	2 large cases (each): 67.3 x 47.0 x 38.9 1 small case: 48.6 x 39.2 x 19.2	67.3 x 48.9 x 29.2
Case Linear Length (cm)	154.3	2 large cases (each): 153.2 1 small case: 107	145.4
Case Weight (kg)	43.2, 37.6	2 large cases (each): 32.0 1 small case: 10.9	21.3, 17.7, 22.7, 20.9



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GLOBETrekker SNG Omni™

RF/Antenna (Outdoor Unit)

Transmit Frequency	13.75 GHz – 14.50 GHz
Receive Frequency	10.95 GHz – 12.75 GHz
RF Power	40W at 1 dB C.P.
EIRP	56.4 dBW
G/T	19.4 dB/K
	(assumes Tant = 40 K, 20 deg elevation)
LNB Noise Figure	0.7 dB
Antenna	1.0 m carbon fiber segmented (6)
Antenna Tx Gain	41.7 dBi (mid band)
Antenna Rx Gain	40.0 dBi (mid band)
Antenna Platform	Motorized Elevation over Azimuth Mounted on Baseboard Unit
Elevation Adj.	10° to 90°, Motorized, resolution <0.1°
Azimuth Adj	±170°, Motorized, resolution <0.1°
Polarization	Linear, Cross Pol., Motorized resolution <0.25°

Baseband

Services	DVB-S Video and Audio Transmission
Video Bit Rates	1.5 - 10 Mbps (inquire about other rates)
Input - ASI	1 x Composite (BNC)
Modulator	DVB-S (EN 300421) / QPSK Modulation
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Interfaces	L-band Tx (from external modem) L-band Rx (to external modem)

Packaging

Cases	2 or 3
Weight	< 23kg / 50lbs ea. (packaged)*
Linear Length	L + W + H = 61 inches / 155 cm

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System Control and Software

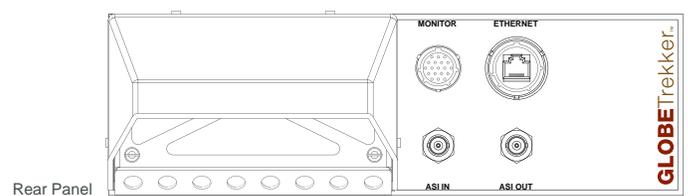
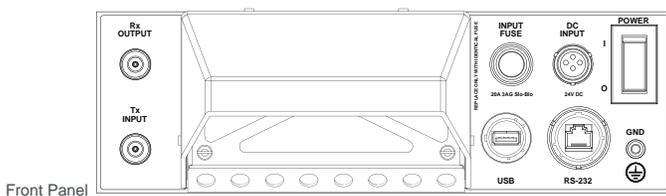
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