



Norsat
International Inc.



Innovative Communication Solutions

NewsLink™

The Norsat NewsLink™ is an extremely rugged transportable satellite terminal, designed explicitly for news gathering in challenging environments. Conveniently packaged in industrial cases and supported by advanced pointing tools, a reporter can set up and begin transmitting in a matter of minutes, without technical expertise.



Tough

The Norsat NewsLink™ system is field proven, rugged and reliable. With units continuously operating for more than eight years in locations including Afghanistan, Iraq, and Haiti, users rely upon the extreme durability of the NewsLink for broadcast quality transmission when it matters. NewsLink terminals have been deployed throughout sandstorms, earthquake aftermaths, arctic conditions and extreme rainfall, while continuing key broadcasts.

Intelligent

Norsat's LinkControl™ software seamlessly integrates all the tools needed for Satellite News Gathering with an easy to use interface and advanced capabilities. A software process guides a user through the pointing process and controls the power of the amplifier. The easy to use SD and HD encoders are controlled through the unified user interface. For experienced users, LinkControl provides advanced diagnostic and control capabilities, including spectrum analyzer, DVB receiver and Norsat's profile management system.

Portable

Packaged in 3 highly rugged cases, a single person can easily move and deploy the system. With its tool-free setup and an intuitive deployment strategy, the NewsLink can be set up and ready to transmit in a matter of minutes, leaving the user free to concentrate on reporting.

Portable

- Man Portable
- Fits in Small Vehicles
- Quick Assembly without Tools

Intelligent

- Assisted Acquire
- Intuitive Interface
- Remote Operation

Tough

- Built Rugged
- Shock Protected
- Environmental Controls

Antenna

Transmit Frequency	13.75 GHz -14.5 GHz
Receive Frequency	10.95GHz -12.75 Ghz
EIRP	>56 dBW(40W)
G/T	21 dB/K
Antenna	1m diamond, carbon fiber, segmented (4 pieces)
Antenna Tx Gain	42 dBi
Antenna Rx Gain	40.5 dBi
Antenna Platform	Aluminum Tripod
Polarization	Cross-Pol (Standard) / Co-Pol (Optional)
Elevation Adj.	10° - 90°
Azimuth Adj.	360°
Polarization Adj.	±60°

Pointing Tools

Onboard Spectrum Analyzer, Received Signal Strength Indicator, DVB Receiver, Compass, Inclinator, GPS, Norsat proprietary LinkControl with Satellite Almanac, Antenna Alignment Wizard

Transmit

Frequency Range	
Output	13.75 GHz - 14.5 GHz
Input	950 MHz - 1700 MHz
L.O. Frequency	12800 MHz
Reference Signal Frequency	External 10 MHz (supplied by Baseband)
10 MHz Power Level	0dBm ±5dB
Reference Signal Frequency	external 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)	40W (other powers available)
Gain	
Small Signal, typical	70dB
Maximum SSG Variation Over	
Any Narrow Band	±1 dB per 54MHz
Spectral Regrowth at Rated Power	-26 dBc

Receive

LNB Noise Figure	0.8 dB
L.O. Stability Maximum (over temperature)	±15 kHz
Phase Noise Maximum (SSB)	-65 dBc/Hz at 1kHz -75 dBc/Hz at 10kHz -85 dBc/Hz at 100kHz
Input/Output VSWR Maximum	2.2 : 1
Conversation Gain	55 dB min, 70 dB max
Output P1dB Maximum	7 dBm
Power Requirements	+15 to +24 V supplied through centre conductor of IF cable
Current Drain Maximum	200 mA

Interfacility Link Cable

Length	10m (Standard) 30m (Optional)
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Shock Protected Baseband

Top Rack Unit:	System Controller, Single Point Power Supply
Middle Rack Unit:	Pointing Tools (Spectrum Analyzer, DVB Receiver) SSPA Control and Management, HD/SD Encoder, DVB-S/2 Modulator
Bottom Rack Unit:	Available for Customer Equipment

Diagnostics

Closed loop transmit power control Temperature and current monitoring Transmit signal monitoring via RSSI, DVB Receiver, and Spectrum Analyzer

Video Encoder

Standard	MPEG-2 (NTSC or PAL)
Bitrate	1500 kbps - 10000 kbps
Inputs	Composite Video (RCA), Composite Video (BNC) SDI with embedded audio (BNC) (Optional)
Latency	250 ms (normal) / 80 ms (low)
Chroma Sampling	4:2:0 (standard) / 4:2:2 (optional)
Settings	PIDs, horizontal resolution, aspect ratio, GOP
Audio Standard	MPEG Layer 2 or Linear PCM (4 channels)
Audio Bitrates	128 kbps - 384 kbps
Audio Inputs	4 balanced (XLR), 4 unbalanced (RCA), AES/EBU (XLR) (Optional)

Video Modulator

Standard	DVB-S / QPSK
FEC	1/2, 2/3, 3/4, 5/6, 7/8
RF Interfaces	Tx-Out, Tx-Monitor-In, Rx-In, Rx-Out (L-band) Modulator-Out, Upconverter-In (70 MHz)

Built-in Power Supply

Prime Power	110/220 VAC 50/60Hz
Optional DC	12 or 24VDC Inverter (Optional)
Consumption	Physical 1RU 152mm deep rack enclosure 650 vA AC 482 x 44 x 152mm (WxHxD)
Physical	1RU 152mm deep rack enclosure

Environmental

Operating Temp	-30 to +50 °C (Antenna/RF) 0 to +50 °C (Baseband)
Rainfall	15mm/h Operational 30mm/h Survival
Wind Speed	60km/h Operational 100km/h Survival
Humidity	95% non-condensing

Packaging

3 Cases (incl. power supply)
711 x 406 x 660mm (WxHxD) each
32 Kg each

