



Norsat
International Inc.

Intelligent Satellite Solutions



NewsLink™

The new Norsat NewsLink™ is the latest in a series of portable satellite terminals. The Norsat NewsLink is a complete Ku-band portable satellite terminal capable of broadcast quality MPEG-2 video (up to 10 Mbps). The new portable terminal is conveniently packaged into industrial cases. With its simple setup and alignment procedure, staff with minimal training can have the Norsat NewsLink™ up and transmitting in just a matter of minutes.



The Norsat Advantage

The Norsat NewsLink™ is the first complete system to be designed from the ground-up to deliver broadband television broadcasting in a portable, rugged, and easy-to-use package. Only Norsat offers a complete solution including a carbon fiber segmented antenna, aluminum tripod, MPEG-2 encoder, DVB-S modulator, laptop controller, system power supply, and full Ku-band RF chain with SSPA that packs into just three airline checkable cases. Norsat is also the first in the industry to incorporate an easy-to-use graphical user interface for antenna alignment, spectrum analyzer, and transmitter and modulator control.

Portable. Intelligent. Tough.

Only the Norsat NewsLink™ provides a quick assembly antenna platform that can be setup in 5 minutes without tools. It comes complete with a compass, inclinometer, and GPS to aid in alignment. The sophisticated Norsat NewsLink™ software makes antenna alignment easy for even novice users through its alignment wizard, beacon detector, and built-in spectrum analyzer. To further simplify operation in the field, a full range of settings can be pre-configured in user selectable profiles before the Norsat NewsLink™ is sent out on an assignment. The Norsat NewsLink™ is truly changing portable satellite communications by eliminating the need to include an RF engineer on every assignment.

Portable

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

Intelligent

- Assisted Acquire
- Intuitive Interface
- Remote Operation
- All-inclusive

Tough

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



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Antenna

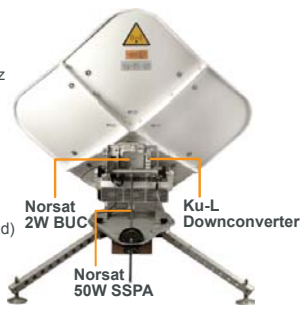
Transmit Frequency	13.75 GHz -14.5 GHz
Receive Frequency	10.95GHz -12.75 GHz
EIRP	57 dBW (40W), 400@ TWTA available as option
G/T	21 dB/K
Antenna	1m diamond, carbon fiber, segmented (4 pieces)
Antenna Tx Gain	42 dBi
Antenna Rx Gain	40.5 dBi
Antenna Platform	Aluminum Tripod
Polarization	Cross-Pol (Standard) / Co-Pol (Optional)
Elevation Adj.	10° - 90°
Azimuth Adj	360°

Pointing Tools

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

Transmit

Frequency Range	
Output	
3200-40W-R	14.0 GHz - 14.5 GHz
3200-40W-E	13.75 GHz - 14.5 GHz
Input	
3200-40W-R	950 - 1450 MHz
3200-40W-E	950 - 1700 MHz
LO Frequency	
3200-40W-R	13050 MHz
3200-40W-E	12800 MHz
Reference Signal Frequency	external 10 MHz (supplied by Baseband)
10 MHz power level	-5 to +5 dB
Reference Input Impedance	50 Ω
Output Power	
Saturated Power (typical)	25W 50W
Rated Power (P1dB) @ Amplifier Flange (minimum)	25W 40W
Gain	
Small Signal, typical	75dB 75dB
Maximum SSG Variation Over Any Narrow Band	±1 dB per 54MHz ±1 dB per 54MHz
Spectral Regrowth at Rated Power	-26 dBc -26 dBc



Receive

LNB Noise Figure (typical)	0.8 dB
L.O. stability maximum (over temperature)	±15 kHz
Phase noise (SSB) maximum	-65 dBc/Hz at 1kHz -75 dBc/Hz at 10kHz -85 dBc/Hz at 100kHz
Input/Output VSWR maximum	2.2 : 1
Conversion gain	55 dB min, 70 dB max
Output P1dB maximum	7 dBm
Power requirements	+15 to +24 V supplied through center conductor of IF cable
Current drain maximum	200 mA



Interfacility Link Cable

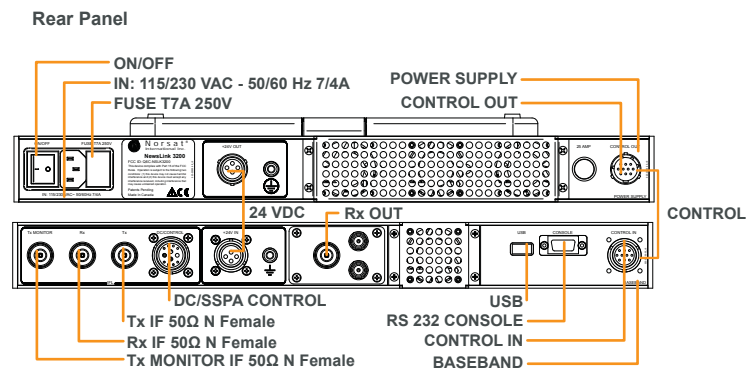
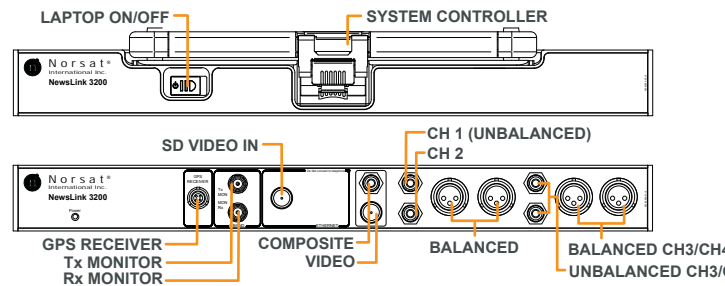
Length	10m (Standard) 30m (Optional)
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Shock Protected Baseband

Top Rack Unit:	System Controller, Single Point Power Supply
Middle Rack Unit:	Pointing Tools (Spectrum Analyzer, DVB Receiver) SSPA Control and Management
Bottom Rack Unit:	Available for Customer Equipment



Front Panel



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

Mobile Wireless Display (Optional)

Resolution	1024 x 768 (XGA transmissive)
Brightness	460 nit LCD (user adjustable from 5 nit)
DC Input Range	10 - 36 VDC
Weight	1.2kg
Dimensions	267mm x 208mm x 36mm
MIL-STD 810F	Vibration and Shock Resistant Water and Dust Resistant



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) (25W)	4 Cases (40W)
711 x 406 x 660mm (WxHxD) each	
32 Kg each	

