



Norsat
International Inc.

Intelligent Satellite Solutions



SecureLink™

The Norsat SecureLink™ is the latest in a series of portable satellite terminals. The Norsat SecureLink™ is a complete Ku-band portable satellite terminal integrating a Paradise modem for broadband IP data transmission (from 64 Kbps - 9 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 SecureLink™ up and transmitting in just a matter of minutes.



The Norsat Advantage

The Norsat SecureLink™ is the first complete system to be designed from the groundup to deliver secure broadband data connectivity in a portable, rugged, and easy-touse package. Only Norsat offers a complete solution including a carbon fiber segmented antenna, aluminum tripod, Paradise modem, 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 modem control.

Portable. Intelligent. Tough.

Only the Norsat SecureLink™ 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 SecureLink™ 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 SecureLink™ is sent out on an assignment. The Norsat SecureLink™ 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

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

Tough

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



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BUY NOW

SecureLink iDirect™

Antenna

Transmit Frequency	13.75 -14.5 GHz
Receive Frequency	10.95-12.75 Ghz
EIRP	53 dBW (20W) other power amplifiers available
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	
3210-20W-R-iDxx	14.0 - 14.5 GHz
3210-20W-E-iDxx	13.75 - 14.5 GHz

Input	
3210-20W-R-iDxx	950 - 1450 MHz
3210-20W-E-iDxx	950 - 1700 MHz

LO Frequency	
3210-20W-R-iDxx	13050 MHz
3210-20W-E-iDxx	12800 MHz

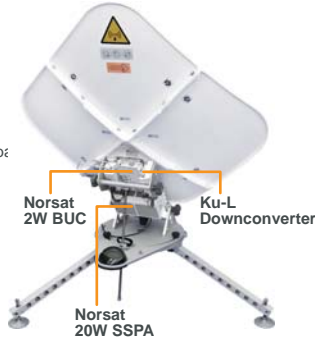
Reference Signal Frequency	external 10 MHz (supplied by Baseband)
10 MHz power level	-5 to +5 dB
Reference Input Impedance	50 Ω

Output Power

Saturated Power (typical)	25W
Rated Power (P1dB) @ Amplifier Flange (minimum)	20W

Gain	
Small Signal, typical	75dB
Maximum SSG Variation Over Any Narrow Band	± 1 dB per 54MHz

Spectral Regrowth at Rated Power	-26 dBc
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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

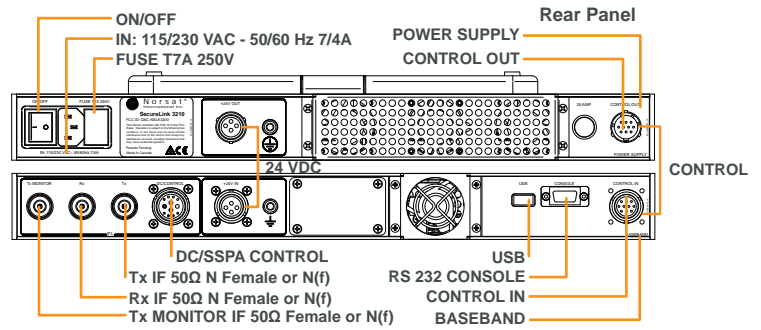
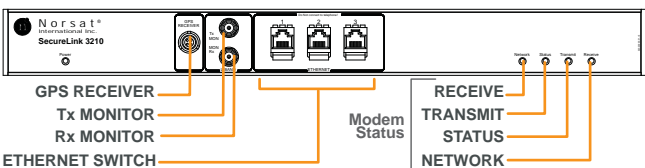
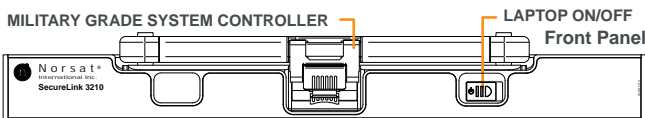


Interfacility Link Cable

Length	10m (Standard) 30m (Optional) longer lengths available on request
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Shock Protected Baseband

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



Built-in iDirect Modem

	NetModem II+ (iD II+)	Series 3000 (iD 3k)	Series 7000 (iD 7k)
Network Topology			
Star	•	•	•
Star/Mesh			•
SCPC	•		•
Channel Rates			
Receive	64 kbps to 5.75 Msps	to 11.5 Msps	to 11.5 Msps
Transmit	64 kbps to 2.875 Msps	to 2.875 Msps	to 2.875 Msps
Modulation			
QPSK	•	•	•
BPSK		•	•
8PSK	Downstream Only		•
IP Data Rates			
Downstream	128 kbps - 18Mbps	128 kbps - 18Mbps	128 kbps - 18Mbps
Upstream	64 kbps - 4.2Mbps	64 kbps - 4.2Mbps	64 kbps - 4.2Mbps
FEC			
Downstream	0.793, 0.495	0.879, 0.793, 0.533, 0.495, 0.431	
Upstream	0.793, 0.66	0.793, 0.66, 0.533, 0.431	
Protocols Supported	TCP; UDP; ICMP; IGMP; RIP ver 2; Static Routes; NAT; DHCP; DHCP Helper; Local DNS Caching; CRTP (series 3000/7000)		
Security	3DES (optional)	AES or 3DES (optional)	

Built-in Military Grade System Controller

Operating System	Microsoft(R) XP Tablet Edition
Screen	264mm Touchscreen XGA LCD, TFT sunlight readable
Keyboard	87 Key Compact, Sealed
CPU	Intel® Core™ Duo Processor L2400 (1.06 GHz) Low power, shock mounted, fully sealed
Physical	Ruggedized MIL-Spec Laptop 1RU 254mm deep rack enclosure 482 x 44 x 254mm (WxHxD)
MIL-STD 810F	514.5 I (vibration) 516.5 IV (freefall) 501.4 I & II (stabilized temp.) 503.4 I (sudden changes) 506.4 III (falling or sprayed liquids)

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) 711 x 406 x 660mm (WxHxD) each
32 Kg each

