

# Norsat<sup>®</sup> Ultra-Portable Manpackable Terminal<sup>™</sup>

**Ultra-portable. Easy-to-use. Rugged. Backpackable. Fully Motorized. Auto Acquire.**

The new Norsat Ultra-Portable Manpackable Terminal (UPT) is the latest addition to Norsat's family of portable satellite terminals. It is a lightweight, compact, rapidly deployable, complete portable satellite terminal with broadband capabilities of up to 8.448 Mbps (up to 52 Mbps optional).

Representing a breakthrough in terms of technology and packaging, the Norsat UPT fits into 2 standard MOLLE backpacks each weighing less than 46lbs. With its simple setup and alignment procedure, personnel with minimal training can have the Norsat UPT up and transmitting in less than 10 minutes.

## The Norsat Advantage

The Norsat UPT combines manpackable, high-powered communications capability with a highly flexible platform. The system can operate in Ku, Ka and X-bands. The complete solution includes a carbon fiber segmented antenna, feed assembly, LNB, BUC, azimuth/elevation superstructure, built-in inclinometer, compass, GPS, and baseband unit with modem, spectrum analyzer, DC-DC converter, shock protected chassis and jacket, system control software with user friendly GUI, and 2 transit cases. The Norsat UPT is smaller, smarter, easy to use and cost effective.

## Rapid, Simple, Reliable Alignment, Setup, and Operation

Only the Norsat UPT provides a quick assembly antenna platform that can be setup in minutes without tools. It comes complete with a compass, inclinometer and GPS to aid alignment. The sophisticated GUI 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 UPT is sent out on assignment. The Norsat UPT is truly changing portable satellite communications by eliminating the need to include a signals engineer on each assignment.

## Versatile Applications

The Norsat UPT is ideal for field units in remote and/or hostile environments where traditional communications infrastructure is insufficient, damaged or non-existent. Examples include:

- Military and defence field deployments
- Emergency field operations

## Flexible Options

**Antenna** - 1 m

**RF/Antenna** - Ku-Band (inquire about Ka and X-Band Versions)

**RF Power** - 10 W Ku-Band/ 10 W X-Band/ 5W Ka-Band

**Modems** -Paradise Datacom Evolution P3000 with ovenized oscillator

**Tools** - Mobile Data Wireless Display



## Key Benefits

**Flexible** - Multiple bands and power levels

**Ultra Portable** - Complete terminal fits into two backpacks

**Easy-to-Use** - Setup and operation that anyone can learn. Graphical user interface is easy to navigate

**Rugged** - Designed for harsh environments

**Shock Mounted Baseband System**  
Designed for tough assignments

**Extremely Stable Structure**- Legs have been designed to stand up on uneven surfaces

**Proprietary Humidity Sensor Technology**- Designed for environments where drastic climate changes can be expected  
Environmentally Controlled Enclosure utilizing heater control and pressurized air control system

**Secure**- Supports external encryption devices



# Norsat® Ultra-Portable Manpackable Terminal (5200 Ku-10W-P3K)

## RF/Antenna

|                  |                                                                                       |
|------------------|---------------------------------------------------------------------------------------|
| Transmit Freq.   | 13.75 - 14.5 GHz<br>Ka-band kit (Optional)<br>X-band kit (Optional)                   |
| Receive Freq.    | 10.95-12.75 GHz                                                                       |
| RF Power         | 10 W                                                                                  |
| EIRP (1dB C.P.)  | 50 dBW                                                                                |
| G/T (clear sky)  | 19.4 dB/K (NTsky 50K)                                                                 |
| Antenna          | 1m carbon fiber, segmented (6)                                                        |
| Antenna Tx Gain  | 41.3 dBi                                                                              |
| Antenna Rx Gain  | 39.8 dBi                                                                              |
| Antenna Platform | Motorized Elevation over Azimuth (Optional)<br>Mounted on Baseband Unit, Auto acquire |
| Polarization     | Linear Cross-Pol - Motorized                                                          |
| Elevation Adj.   | 10-90 degrees                                                                         |
| Azimuth Adj.     | +/- 190 degrees                                                                       |

## Baseband

|                  |                                                                                                                         |
|------------------|-------------------------------------------------------------------------------------------------------------------------|
| RF Interfaces    | Tx-Out 950-1750 MHz<br>Rx-In 950-1750 MHz                                                                               |
| Data Interface   | 10/100 Base-T Ethernet                                                                                                  |
| Modem Type       | Paradise Datacom Evolution P3000 with ovenized oscillator<br>iDirect and others available (upon request)                |
| Network Topology | SCPC                                                                                                                    |
| Modulation       | QPSK, BPSK, OQPSK                                                                                                       |
| Data Rates       | 9.6 Kbps to 8.448 Mbps                                                                                                  |
| Error Control    | Viterbi FEC, Rates. 1/2, 3/4 and 7/8 with k=7<br>Intelsat Reed-Solomon Outer Codec per IESS 308<br>Turbo FEC (Optional) |
| Physical         | 15.8"x10.5"x24.5" (WxHxD), 39 lbs                                                                                       |

## Controller (Laptop)Interconnect

|          |                                       |
|----------|---------------------------------------|
| Cable    | 10/100 Base-T Ethernet<br>RJ-45, CAT5 |
| Physical | Up to 160 feet                        |

## Certifications

|                    |         |
|--------------------|---------|
| Intelsat           | Pending |
| FCC ID             | Pending |
| FCC Certifications | Pending |

## System Control and Software

|                  |                                                                                                                                                                                                                                                                    |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Software         | Master Control Application<br>Satellite Almanac<br>Antenna Alignment Wizard<br>GPS Interface<br>Beacon/Carrier Detector<br>Spectrum Analyzer<br>Mobile Data Wireless Display (Optional)<br>Service Control Application<br>Status, Alarms and Logging<br>Help Files |
| Operating System | Microsoft Windows® XP Professional                                                                                                                                                                                                                                 |
| Screen           | 10.4" Touchscreen XGA LCD, TFT sunlight-readable (Optional)                                                                                                                                                                                                        |
| Mobile Display   | Remote system control and monitoring (Optional)                                                                                                                                                                                                                    |

## Power

|             |                                        |
|-------------|----------------------------------------|
| Prime Power | 24 V DC                                |
| Optional AC | 110/220 VAC, 60 Hz<br>Stable to 90 VAC |
| Consumption | 400W DC/480W AC                        |

## Environmental

|                  |                                                                                                                                                                                             |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Temp.  | -30 to +50 °C                                                                                                                                                                               |
| Rainfall         | 4 inches/h                                                                                                                                                                                  |
| Wind Speed       | 30 mph gusting to 45 mph                                                                                                                                                                    |
| Humidity         | 100% condensing                                                                                                                                                                             |
| Baseband Chassis | Environmentally Controlled Enclosure utilizing heater control and pressurized air control system<br>Intelligent Power Preservation mode of operation<br>Shock mounted inside Baseband frame |

## Shipping/Transport Cases

|             |                                                     |
|-------------|-----------------------------------------------------|
| Baseband    | Single case<br>Packaged 16"x11"x25" (WxHxD), 46 lbs |
| RF/ Antenna | Single Case<br>Packaged 16"x11"x25" (WxHxD), 46 lbs |



For additional information or details, please contact us at:

### North America

tel (1) 800.644.4562  
fax (1) 604.292.9100

### International

tel +1.604.292.9000  
fax +1.604.292.9100

email: [sales@norsat.com](mailto:sales@norsat.com)  
<http://www.norsat.com>