

TOUGHSAT FLYAWAY CASE

A PORTABLE HOTSPOT



A Case-Based Mobile Satellite Internet System

Go where cell access is not available. The Toughsat Flyaway mobile satellite system is easily transported and deployed for high-speed connectivity with up to 5 Megabits down, 2 Megabits Up* from any location. With an integrated wireless "G" access point, this satellite solution can become a multi-user hotspot in minutes. *Requires 6 watt BUC radio for full speed service.

Our flyaway bracketing allows the Toughsat to be easily mounted on the ground, or on top of any vehicle roof rack, even rental vehicles. With the largest case length under 62", the Toughsat flyaway can easily fit into most SUV or other vehicle cargo areas. Power requirements are minimal and can be supplied by a mini-inverter from a vehicle power port, or from a small generator.

When paired with the low-latency of our iDirect Service, our inexpensive VoIP Phone Service enables voice calls with virtually unnoticeable delay between conversing parties.

The Toughsat Flyaway Case - Portable Cost Effective Communications.

TOUGHSAT Flyaway Features:

- Manufactured and supported by Ground Control
- One Operator Simplicity - No Certification Required
- Ground Mounting and Roof Rack Mounting (Fly-and-Drive)
- Speeds of 5Mbps down by 2Mbps up with our service
- Creates Wi-Fi hotspot in 3.5 minutes automatically
- Ideal for VoIP phone service - Very low latency
- Shippable - Under UPS-FedEx-DHL limits (.98m system)
- Low power usage - Under 150 watts (max draw)
- Works in extreme environments. Hot-Cold-Rain
- Available in .98 meter or 1.2 meter dish sizes
- 24-7 U.S based support

A Portable Broadband Hotspot - Available in .98M and 1.2M Sizes



The Flyaway Case from Ground Control Communications On-The-Move

The Flyaway .98 or 1.2 Meter Ku-Band Toughsat satellite system doubles as both a ground mounting platform and a Fly-And-Drive roof rack vehicle mount. This compact solution is easily transported and assembled by one person in about 15 minutes. The four shippable items are (1) The Toughsat (2) The .98 or 1.2 meter dish (3) The rackmount case, and (4) The ground or Fly-And-Drive bracketing. All required assembly tools are provided in a convenient pouch.



Wireless Simplicity

The rolling 6RU rackmount case includes the Toughsat Controller that has an integrated 4 port wireless "G" access point for a 100' connection radius from the case. The 50' cable run allows the rack-mount electronics to be located in a structure or tent. Also included in the case is the iDirect iNFINITI satellite router and an AC power conditioner to help protect the electronics from variable power. Power can be supplied by 12 volt vehicle mini-inverter or a portable generator.



Fly-And-Drive

Ship a system anywhere and use the universal bracketing on most any vehicle roof rack. Once the system is in place, getting online is as easy as powering up and pressing the "Find Satellite" button.

The system will deploy, acquire satellite in about 3.5 minutes and automatically establish a wireless access point. Stowing is just as easy. Just press the Stow button, and drive to your next location. There is no special training required to use the system.



Compact - Fits In Vehicle Cargo

The largest of the four cases is 61.3" inches long and fits in most cargo areas of many SUV's. The weight of the .98 meter case is also under the 150 lbs (68kg) standard shipping weight limit of UPS, FedEx & DHL.

The Toughsat Flyaway System is manufactured by Ground Control, and we are here to support you for all of your communication needs.

SYSTEM FEATURES

- One-button operation.
- Requires little or no training to operate.
- Dish peaking accuracy is within 0.1 degrees with near zero play.
- Typical seek time to find and lock on satellite is 3.5 minutes.
- Establishes a self-contained local area network with one button.
- Establishes a wireless access point and wiring to computers is optional.
- System is not affected by magnetic distortions to lock on any satellite.
- Operates globally in both hemispheres.
- 4 watt BUC transmitter is standard, 6 watt upgrade for faster speeds.
- Can find any liner polarized Ku-Band satellite from any location on earth.
- Modular design - components easily replaced if problems occur.
- Operational in wind speeds up to 20 MPH (.98 meter dish).
- Operational in temperatures of -20 to 140 degrees at 100% humidity.
- No software to install.
- A computer is not required for use.
- Remote administration and configuration from any web browser.
- Autostow safety features if vehicle is moved or goes off signal.

Wireless 1RU Controller

- The front of the controller has several buttons for "search, stow and stop".
- Built-in wireless 4 port router.
- No fan required - Operates silent.
- Web accessible interface screen from any connected computer.
- Is able to locate and lock on any satellite independently of satellite gateway/modem.
- Optional remote panel allows full operation from vehicle dashboard or other desirable location.
- Intuitive Interface screens allow adjustments and overrides of many system parameters.
- System can be customized to locate any visible satellite using longitude location only.
- Override options for GPS, Autostow, Auto firmware updating.
- Networking Overrides for IP Address, Subnet Gateway address, DNS.

Diagnostic & Updating

- Lifetime free firmware upgrading with easy one-button updating.
- System provides accurate technical diagnostics without dispatching a technician to rig site.
- Remote access into system from Ground Control for performance tuning and troubleshooting.
- System provides historical log of events for accurate diagnostics and quick correction.

TOUGHSAT FLYAWAY CASE

Portable Satellite Internet
Ground Mounting - Vehicle Mounting



Little or no training is necessary to operate the system. Once the power is on, simply press the Find Satellite button on the controller and the dish will deploy automatically, lock on the satellite and create a high-speed wireless "G" network in about 3.5 minutes. It really is that simple.

Toughsat Flyaway Specifications

MAIN CASE Specifications

Toughsat (Same for both .92 and 1.2 systems)	Compatible with Toughsat XP or SP
External Dimensions	61.25" x 21.75" x 16" (155.6 x 55.24 x 40.64 cm)
Weight .98 dish (loaded) ..	149 lbs (67.59 kg) Under shipping weight limits
Weight 1.2 dish (loaded) ..	160 lbs (72.57 kg)

DISH & BAG Specifications

Reflector Types	0.98 or 1.2 square meter effective area
External Dimensions .98 Meter Dish.....	39" x 4" depth (99.06 x 10.16 cm)
External Dimensions 1.2 Meter Dish.....	48" x 5" depth (122 x 12.7 cm)
Weight (both systems)98m- 26 lbs (11.79 kg), 1.2m 35 lbs (15.88 kg)

RACKMOUNT CASE (6U)

External Dimensions (same for both .98 and 1.2)	21.75" x 24.75" x 14 (55.24 x 62.86 x 35.56 cm)
Weight	33 lbs (14.97 kg)
Components	Dish Controller, iDirect Router, Power Conditioner
Cable Run	50' (15.3 Meters) Waterproof quick disconnects

BRACKETING & DOLLY BAG

External Dimensions	63" x 8" x 8" (158 x 20 x 20 cm)
Weight	28 lbs (13 kg)
Other Components	Hardware and tools

DISH ROTATION

Azimuth	410°
Elevation	165°
Polarization	+80°

RF INTERFACE

Transmit Power	4 or 6 watts (depending on model)
Receive Frequency	Range 950-1450 mhz

ENVIRONMENT

Max Operational Temperature (at 100% humidity)	Operational -20° F to 140° F (-28° C to 60° C)
Max Survival Temperature (at 100% humidity)	-60° F to 160° F (-51° C to 71° C)

POWER REQUIREMENTS

Dish Controller & Dish Motors (Via 120 VAC).....	15 watts (can be turned off after pointing)
iDirect Modem (via AC120V to DC 24V @ 5 Amp).....	75 watts



SATELLITE NETWORK - iDirect (Flyaway may be used with any Ku-Band provider & satellite router)

Satellite Router (optional).....	iDirect INFINITI 3100 Series Router
Max Download.....	Up to 3000 Kbps (5000 Kbps with 6 Watt BUC)
Max Upload.....	Up to 1000 Kbps (2000 Kbps with 6 Watt BUC)
Public (Static) IP Address.....	Included
DHCP.....	Yes. Wireless or 4 port Ethernet
NAT.....	Supported by included router
Wireless Security.....	WPA (TKIP) WPA2 (AES) + WEP 64 and 128bit
Firewall.....	Supported by included router
Port Mapping & Port Triggers.....	Supported by included router
QoS, ToS, MAC Address Clone, RIP v1 RIP v2.....	Supported by included router
Networkable clients machines.....	Unlimited
Wireless.....	Cisco Linksys wireless router "G"

