

TOUGHSAT SP

MOBILE SATELLITE SYSTEM



The TOUGHSAT SP Mobile Satellite Internet System is a consumer grade .98 meter mobile system built on the rugged Toughsat design and able to endure severe environments and provide a high-speed Internet Connection in 3.5 minutes from stowed.

Manufactured For Durability

The Toughsat series of mobile satellite system is third generation of mobile satellite technology. Years of experience is being passed on with a time tested superior product designed designed to take most anything thrown at it.

One-Touch Connectivity

Press a button on the TOUGHSAT SP, and the dish will deploy from a stowed position and lock on satellite automatically. Each system is preconfigured operation requires little or not training. Once the system is online, you are able to connect to the Internet at broad-band speeds. It really is that simple!

Weather Most All Conditions

The Toughsat SP is built to tackle many extreme environments. Aluminum construction, sealed onboard electronics, no-backlash braking. Even strong magnetic distortions have no effect with pointing.

A Cut Above

The TOUGHSAT SP features the ability to operate in high winds up to 50MPH (64 kph), and with a 4 watt transmitter the system can operate most weather. Unlike compass based mobile systems, the satellite acquire routines in the TOUGHSAT SP are not subject to magnetic distortions and can operate unimpeded anywhere.

One Provider

Remote Satellite is experienced with all phases of service from equipment, installation and service. We are your point of contact for all connectivity needs. VOIP, VPN, Streaming Services, Equipment upgrades, Software Upgrades, Remote Satellite does it all.

Premium Satellite Service

The TOUGHSAT SP works with all Ku-band satellites including iDirect service with up to 5Mbps down and 2Mbps upload speeds with a 6 Watt radio upgrade. The Toughsat is not dependent on the satellite modem, so it may connect with any provider that supports a .98 meter dish with a 4 watt radio... globally.

Mobile Hot-Spot

The Toughsat controller has an integrated 802.11 wireless access point, so any wireless computer or device may connect within 100' from the access point.



Customer Service and Support

The most important aspect to any service is the level of support offered by your provider. Remote Satellite has a tradition of offering our clients superior field support for the most demanding requirements. We are there when you need us.



Remote Satellite Systems
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GENERAL 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 transmitter with an optional 6 watt upgrade.
- Can find any liner polarized Ku-Band satellite.
- Modular design - components easily replaced if problems occur.
- Operational in wind speeds up to 50MPH.
- Operational in temperatures of -20 to 140 degrees at 100% humidity.
- No software to install.
- Computer not required
- Remote administration via any web browser.
- Autostow safety features if RV 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 extension allows full operation from vehicle dashboard or other 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 Technical Support for performance tuning and troubleshooting.
- System provides historical log of events for accurate diagnostics and quick correction.

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Simple - Rugged - Reliable - Quick Operation



The TOUGHSAT SP is completely self-contained. No external equipment needs to be connected for it to deploy, lock on satellite, and create a local area network for high-speed Internet access to multiple computers. Included in the system are the Mobile Satellite Dish, and the system controller which includes a wireless router 4 port router to create a wireless "G" hotspot.

Little or no training is necessary to operate the system. One the power is on, simply press the Find Satellite button and the dish will deploy automatically, lock on the satellite and create a high-speed network in about 3.5 minutes.

Optional Items

Case Based SP - The Flyaway Case places a Toughsat mobile system in a reinforced lightweight case under max shipping weight limits. It can be easily handled and setup by one person.

Fly-And-Drive - At no additional cost, the ground mounting brackets double as a fly-and-drive solution. Ship the Flyaway case anywhere, and then mount it on any vehicle roof rack.



Toughsat SP Specifications

BANDWIDTH & NETWORK (iDirect Services)

Download with 4 Watt Radio.....	Up to 3000 Kbps (5000 with 6 Watt Radio)
Upload.....	Up to 1000 Kbps (2000 with 6 Watt Radio)
Public IP Address.....	Included
DHCP.....	Yes. Wireless or 4 port Ethernet
NAT.....	Supported by included router
Firewall.....	Supported by included router
Port Mapping.....	Supported by included router
Networkable clients machines.....	Unlimited
Wi-Fi.....	Cisco Linksys wireless router "G"

SATELLITE DISH

Reflector Type	0.98 square meter effective area
Mount Geometry.....	3 Axis motor drive (elevation, azimuth & skew)
Deployment Sensors.....	GPS & Tilt Sensor +/- 0.1°

MAXIMUM MOUNT ROTATION

Azimuth	410°
Elevation	165°
Polarization	+95°

RF INTERFACE

Transmit Power	4 watts (May be upgraded to 6 Watt)
Receive Frequency	Range 950-1450 mhz

DIMENSIONS OF DISH

Dish Stowing Extended Dimensions	57" L x 39" W x 12" H (145 x 74 x 30.5 cm)
Mounting Plate	22" x 57" (56 x 145 cm)
Base Plate (attached to mounting plate).....	14" x 16" (35.6 x 40.7 cm)
Deployed Height	52" max height (132 cm)
Weight	125 lbs (56.7 kg)
Boom Sweep	53" from center with 5" min. ground clearance

ENVIRONMENT

Wind Deployed	50 mph (81 kph)
Wind Stowed	140 mph (225 kph)
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



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