



The Suitcase® IPT LinkWay_{S2} satellite terminal is the latest of combat proven IPT terminals and comes with an integrated LinkWay_{S2} modem. The IPT family is it the most compact and quickest-to-air system on the market today. Easy, one-man operation and exceptional technical performance allow secure broadband transmission. It's tailored for military units, government agencies and rescue organizations.

INBUILT LinkWay_{S2} MODEM

The Suitcase has an integrated ViaSat® LinkWay_{S2} modem, a hubless MF-TDMA VSAT modem that enables you to cost effectively integrate a variety of applications into a single platform in any network topology – mesh, star, or multi-star. The LinkWay_{S2} terminal includes an integrated DVB-S2 receiver/decoder. LinkWay_{S2} uses a revolutionary new mesh TDMA modem design. Turbo coding provides quasi-error-free connections with minimal carrier power requirements. 8PSK modulation provides dramatically improved spectral efficiency. Combined with an improved, shorter TDMA preamble, LinkWay_{S2} is up to 40% more efficient than convolutional-encoded Reed-Solomon systems, increasing throughput, reducing station size, and reducing satellite bandwidth requirements.

EASY TO USE AND QUICK TO AIR

The Suitcase® LinkWay_{S2} is deployed for live satellite transmission using

a unique point & shoot system. The desired satellite is simply selected from a list and inbuilt GPS receiver, compass and a fully motorized antenna then assures trouble-free antenna pointing and auto peaking. Parameter set up, monitoring, antenna and network control is achieved through a web based graphical user interface (GUI) in the browser on your laptop. With its 10/100 base-T port, the system works as an ordinary LAN for email, FTP, VoIP and data streams. As any standard IP traffic this can be encoded. An L-band port is included as back-up. A USB/LAN Port enables simultaneous USB and LAN connection.

COMPACT

Measuring just 70x47x34 cm (27.6x18.5x13.4 in) and with a total weight of approximately 39 kg (86 lbs) the Suitcase® IPT LinkWay_{S2} is scarcely bigger than a hand baggage. It can easily be made compatible with the IATA weight and size concept.

RUGGED AND DEPENDABLE

The Suitcase® IPT LinkWay_{S2} is designed to meet military standards regarding performance, usage and ruggedness. It is fully enclosed in a tough carbon fiber and aluminum carrying case. The IPT terminals are combat proven and have been extensively used during Operation Iraqi Freedom and the Afghanistan conflict.

KEY FEATURES

- Integrated LinkStar S2 modem – any network architecture - easy and flexible network set up
- Quick to air - less than five minutes to deploy
- Portable - suitcase size and compatible with the IATA weight and size concept
- Easy to use - web based GUI, GPS, electronic compass, auto peaking and fully motorized antenna
- LAN standard - LAN 10/100 base-T interface
- Combat proven and rugged - meets mil standards

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SPECIFICATIONS: SWE-DISH® IPT SUITCASE LinkWay_{S2}

ANTENNA PERFORMANCE

Antenna Type	Gregorian offset segmented into four pieces
Sidelobe performance	29-25 log θ dBi in azimuth
Antenna Aperture	0.90 x 0.66m (35.4 x 26.0 in)
Polarization	Linear
Rx Frequency	10.95-12.75 GHz.
G/T	19.3 dB/K @ 11.0 GHz 20° elevation
Tx Frequency	13.75-14.5 GHz
EIRP Capability	Up to 54 dBW
Antenna Positioning and inclinometer	Motorized positioning through GPS, electronic compass
Azimuth Range	±30° in 0.1° steps
Elevation Range	5°-90° in 0.1° steps
Polarization Range	190° (-30° to 160°) in 0.1° steps
Transmit gain at midband	38.4 dBi
Receive gain at midband	38.2 dBi
3dB beamwidth in azimuth	1.53° @ 14.25 GHz
First sidelobe level	-21 dB @ 2.4° relative to mainlobe peak in azimuth
Polarization performance	XPD > 30 dB within 1 dB cone

OPERATIONAL CONDITIONS

Operational Temperature	-30°C to +50° C (-22°F to +122°F)
Operational Humidity	95% non-condensing
Operational Wind Speed	20 m/s (45 mph), anchored unit
Operational Altitude	Max 3,000 m (9,850 ft)
Rainfall	Max 100 mm (4 in) rain per hour
Storage Temperature	-40°C to +70°C (-40°F to +158°F)
Sealing Class	IP65, including Power Supply Unit
Deployment and Set-up	< 5 minutes

MECHANICS

Physical Size	70x47x34 cm (27.6x18.5x13.4 in) when stowed for transportation
Weight Approximately	39 kg (86 lb) depending on options. IATA compatible

POWER SUPPLY UNIT

AC Supply	100-240 V, AC 50-400 Hz, 750 W
DC Supply	21-32 V DC, 750 W
Output	26 V DC, max 27 A
UPS (optional)	up to 30 min usage on UPS integrated with power supply

ENVIRONMENTAL STANDARDS & TEST

IEC 68-2-14	Change of temperature, -40°C to +70°C (-40°F to 158°F)
IEC 60068-2-64	Fdb Random vibration broadband
IEC 60068-2-27	Ea Shock
IEC 60068-2-29	Eb Bump
IEC 60068-2-31	Ec Drop and topple
IEC 60068-2-32	Ed Free fall
IEC 60-2-52	Salt mist
IEC 60068-2-68	Sand and dust

Continuous Operation	>10,000 antenna and polarization motion cycles during 15 days continuous operation
Type Approvals	FCC license (E030197), Eutelsat (EA-V042), Intelsat (IA097AA0), EuropeStar (ES-ME-39), Hispasat (HIS-ET-96221-10026-SWE) IPStar, Shin Satellite and AsiaSat

INTERFACES, TRANSMIT, RECEIVE AND CODING MODES

Inbuilt LinkWay _{S2} modem	
TCP/IP LAN	10/100 base-T. MIL-C-26482 series 1 connector IP gateway for applications like video streaming, Internet connection, E-mail (SMTP/POP) and ftp file transfer
L-band interface	Included
USB interface	Included



SSPA AND LNB PERFORMANCE

SSPA extended Ku-Band	13.75-14.50 GHz
Output Power	Psat / P1dB: 45.4/44.5 dBm (35/28 W)
Gain Flatness	±1.0 dB full band
Gain Slope	+0.3 dB per 40 MHz
Gain Variation	±1.0 dB at -30°C to +55°C (-22°F to + 131°F)
Gain Adjustment	10 dB, 0.1 dB resolution
Noise Figure	8 dB at max gain

	LNB1*	LNB2	LNB3
RF Frequency GHz	10.95-11.70 GHz	11.70-12.20 GHz	12.25-12.75
IF Frequency	950-1.700 MHz	950-1.450 MHz	950-1.450 MHz
Local Frequency	10.00 GHz	10.75 GHz	11.30 GHz

*Three different LNBs are delivered as standard together with the military IPT Mil Suitcases. LNB1 is mounted as standard from factory. It is easy to change LNBs in the field.

Local Stability	±3 ppm
Noise Figure	0.8 dB typical at 25° C (77° F)
Conversion Gain	60 dB typical at 25° C (77° F)
Conversion Gain Variation	Max 2dB in any 50 MHz segment over the frequency band

Specifications are subject to change without notice, and this datasheet will not form part of any contract.