GISS
Global Infrastructure & Security Solutions

SMART

Wide range of different antenna size.

Easily transportable.

SMART by GISS is a compete FlyAway VSAT terminal, offering a wide range of configurations suited to each customer's requirements. It comes with motorized antenna of aperture of the customer's choice and Antenna Pointing Unit with auto-pointing feature as a standard, and can be equipped with Fiber Optic module, conventional IDU section, or No-IDU Modem Module with various modems. It is possible to intergrate network devices, UPS, and other required accessories.
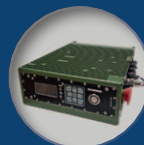
Advantages:

- Flexible configuration according to the customer's needs.

- Wide range of different antenna size.

- Bespoke IDU with Integrated Terminal Controller (ZKT) or No-IDU option.

- Fiber Optic modules with L-Band signals transmission available.

- In-field, tool-less switching of the working band by changing only RF module.

- Motorizing and dedicated ACU with automated pointing feature as a standard.

- Intuitive local GUI and WEB interface.

- Powered from AC (mains) with UPS option.

- Packed with dedicated hard-case system.

SMART Technical specification

Selection of SMART modules

Conventional SMART architecture with IDU	SMART No-IDU architecture
Antenna of chosen aperture (motorized)	Antenna of chosen aperture (motorized)
RF modules for chosen bands	RF modules for chosen bands
ACU (Antenna Control Unit)	ACU (Antenna Control Unit)
Bespoke IDU with ZKT	SMART No-IDU Modem Module
Fiber Optic modules	Relevant cabling assembly (optional FO drum for distant network devices connection)
Relevant copper or optic cabling assembly (including drums for IDU – ODU interconnection)	Power supply system
Power supply system	Hard-case packing system
Hard-case packing system	

Antenna

Series	Carbon Fiber
Aperture	1.2 m, 1.5 m, **1.8 m**, 2.0 m, 2.4 m
Working band	C, **X**, **Ku**, Ka
Movement range	±180° (Azimuth) / +5° - +90° (Elevation) / ±90° (Polarization)
Control option	**Motorized** (as a standard) / Manual (as an option)

RF module

	X	Ku	Ka
Transmit frequency	7.90 GHz to 8.40 GHz	13.75 GHz to 14.50 GHz	30.0 GHz to 31.0 GHz
Receive frequency	7.25 GHz to 7.75 GHz	10.95 GHz to 12.75 GHz	20.2 GHz to 21.20 GHz
Polarization type	RCP / LCP	Linear	RCP / LCP
BUC	50 W, **100 W**, 150 W		
LNB	Single- or Multi-Band, depending on the configuration chosen		

ACU

Automated pointing options	Possible with use of DVB-S2, Beacon Receiver or integrated modem signal
Antenna control	Electronic adjustment of antenna position
Remote control	M&C provided for: BUC, LNB, IDU (or Modem Module in No-IDU version), FO
Local GUI	Display + Keyboard + LEDs and WEB interface
Power	Comes with dedicated AC power supply.

No-IDU Modem module

Functionality	A wide range of modems of the customer's choice and Ethernet switch. FO conversion available.
Local GUI	Fully configurable via ACU by GISS and modem WEB interface
Installation	In-field environment installation on the top of ACU module (tool-less).

IDU

Modems	A wide range of rack-mounted modems of the customer's choice.
Network devices	Selection of rack-mounted network equipment, PacStar 400 series as a standard (other network devices as an option).
ZKT	Provides intuitive interface for crucial IDU devices management, provides communication with ODU, allows the whole VSAT control from IDU.
User interface	Display + Keyboard + LEDs and WEB
Power Supply	AC (mains), with UPS option
Packing	In one or two rugged cases, depending on the configuration chosen.

FO modules

Transmitted signals	2x L-Band (Rx and Tx)	1x 10MHz reference	Up to 2x Gigabit Ethernet
Working distance	Up to 10 km		
Cabling	Single-mode, dual-fiber cable on a drum		
User interface	Controlled via ACU (ODU unit) or ZKT (IDU unit)		

Environmental

Standard compliance	MIL-STD 810
Operating temperature range	-30 °C to 50 °C (-22 °F to 122 °F)
Storage temperature range	-40 °C to 60 °C (-40 °F to 140 °F)
Operational wind speed	45 km/h (28 mph), gusting to 72 km/h (45 mph)
IP rating	IP65