FA-100 Antenna

COMPACT AND LIGHTWEIGHT, RAPID DEPLOY, 1m MANPACK TERMINAL

Features

- Available in X, Ku & Ka bands
- Embedded or external modem
- Full auto acquired one button operation
- Robust carry case with backpack option
- SkyNet certified
- MIL-STD-810G compliant
- AC or DC powered
- Flyaway antennas available from 0.23m to 3.7m diameter

Overview

The FA-100 is a fully automated integrated satellite terminal providing the user with high capacity bandwidth in a simple to use simultaneous 3-axis motorised VSAT terminal.

The all carbon fibre construction FA-100 terminal meets today's most stringent Size, Weight and Power (SWaP) requirements.

Ultra's terminals are specially designed for use in high-pressure environments, where reliable access to secure communications is critical to protecting the safety of soldiers and assets as they carry out their missions.

Specifically designed for worldwide operations where mobility and rapid deployment are essential. The rugged FA-100 can be effortlessly deployed with a one-button operation that means the user can be on-air in minutes, in the harshest of environments, ensuring the operator has easy access to communications without impacting their ability to carry out their mission.

The terminal is designed to be modem agnostic, accommodating a range of integrated options including, but not limited to: iDirect e150mp, iDirect e850mp, iDirect 950mp, Comtech DMD1050, Paradise Q-Lite, Viasat CBM-400.

Users can also bypass or omit an internal modem and connect an external modem using the L-band interfaces.

Constructed from high strength carbon fibre, the FA-100 is lightweight and easily transportable whilst still maintaining its ability to withstand the rigours of multiple deployments in challenging environments. Requiring minimal in-field operational training, the terminal has been designed to deliver maximum connectivity without placing undue strain on operations, logistics and users.

A number of packaging options are available depending upon customer requirements, and the terminal has the option to be placed into a 'Stealth' mode whereby speed of acquisition is traded off with motor noise, thus making the terminal almost silent in operation, whilst still acquiring the satellite in minutes.

Technical specification

General

Antenna Type	Parabolic (Segmented), centre fed
Diameter	1.0m
Polarisation	Linear Orthogonal for Ku-band, optional for Ka-band RHCP, switchable to LHCP, for X-band and Ka-band

Transmit

Transmit Bands	FA-100/70 FA-100/140 FA-100/300	7.9 to 8.4GHz 13.75 to 14.5GHz 27.5 to 31GHz
Transmit Gain	FA-100/70 FA-100/140 FA-100/300	36.4dBi 41.2dBi 47.7dBi
Transmit EIRP (PSat)	FA-100/70 FA-100/140 FA-100/300	52.9dBW (50W BUC) 58.0dBW (55W BUC) 61.1dBW (25W BUC)
Transmit EIRP (PLin)	FA-100/70 FA-100/140 FA-100/300	50.9dBW (50W BUC) 56.0dBW (55W BUC) 59.1dBW (25W BUC)

Higher EIRPs are possible using larger BUC and external power supply

Receive

Receive Bands	FA-100/70 FA-100/140 FA-100/300	7.25 to 7.75GHz 10.7 to 12.75GHz 17.7 to 22.2GHz
Receive G/T	FA-100/70 FA-100/140 FA-100/300	15.2dB/K 18.6dB/K 21.1dB/K
Receive Gain	FA-100/70 FA-100/140 FA-100/300	35.7dBi 39.5dBi 44.3dBi

Interfaces

DC Power Input (11 to 36V)	4 pin chassis plug (TVP00ZN-15-04PN)
RJ45 Ethernet (Data)	RJ45 Socket (RJFTV72N00)
RJ45 Ethernet (Management Port)	RJ45 Socket (RJFTV72N00)
L-band Monitor	N-Type Socket
L-band BUC Input	N-Type Socket

Power

Power Requirement	90 to 264V AC Power Supply +24VDC 'Hot swappable' MIL batteries (option)
Power Consumption	100W to 280W

Environmental

Temperature	Transportation & Storage	-40 to +70°C
	Operational	-40 to +55°C
Humidity	1 to 100%	
Wind Rating	Operational	50km/h with gusts to 72km/h
	Survival (stowed)	100km/h
Altitude	3,000m @ -10°C	

Physical

Packed Size	0.70 x 0.40 x 0.37m Size above is for a baseline configuration
Weight	19kgs Weight above is for a baseline configuration
Packaging	Any packaging is possible: • Hard case • Semi-hard case • Rucksacks

Multiple FA-100's

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