Starwin Flat Pannel Ku-Band
(Auto Point) VSAT Antenna

Description

The uSat terminal deploys cutting-edge flat array antenna system, which features flat shape and high gain. This is a completely new and novel antenna system designed and produced for a new generation of flat-type fully integrated satellite communication terminals. All components – antenna system, RF units, satellite router, WiFi devices and power supply are integrated into a flat compact terminal enclosure in subtle ways.

The uSat has completely changed the form of traditional VSAT terminals that normally uses the parabolic antenna systems for tens of years, providing users of satellite communication with a new, unique system that is both easy to deploy and operate. It aims to replace parabolic-shape antenna products that have been characterized by discrete type of installation, operation, debugging and maintenance.

Due to fast, simple and easy deployment, the uSat flat portable terminals are suitable for applications such as emergency services, disaster recovery, military, security, government and enterprise communication. Portable uSat terminals can be deployed within a very short time to achieve reliable data, voice and video transmission services in areas without terrestrial networks or in places where a temporary communication is required

Features:

* All-in-One, fully integrated: flat panel antenna, Modem, BUC, LNB, WiFi, Power Supply
* Higher gain, Higher antenna efficiency
* Small Size, Light weight for backpack
* One Key Ease of operation
* Secure satellite lock in 3 min with mobile APP connected to terminal via Bluetooth
* 3.1 in. OLED display for quicker pointing satellite and checking real-time working status

Specification:

Antenna		
Model No.		FL60P-E
Antenna Type		Slotted waveguide array antenna
Equivalent to parabolic antenna size		0.6m
RF Performance		
Frequency Range	Tx	13.75~14.50GHz
	Rx	10.95~12.75GHz
Polarization		Linear Horizontal / Vertical
Rx Gain		≥35dBi
Tx Gain		≥36dBi
G/T		13dB/K
EIRP		43dBW (6W BUC)
First Sidelobe		≤15dB
Power And RF Performance		
AC Power Supply		85~264VAC
DC Supply Adapter		12~24VDC,160W (Optional)
Typical Satellite Modem[1]		Any Modem whose size is below 200mmx280mm
Typical BUC		3W / 6W /16W
Typical LNB		PLL LNB 30K for TDMA systems PLL LNB 5K for SCPC systems
Power Consumption[2]	3W BUC	45W (Manual Searching Satellite)
		120W (Auto Searching Satellite)
		65W (Access Network)
	6W BUC	45W (Manual Searching Satellite) /
		120W (Auto Searching Satellite)
		85W (Access Network)
	16W BUC	45W (Manual Searching Satellite) /

		120W (Auto Searching Satellite)
		155W (Access Network)
Mechanical Performance		
Satellite Acquisition	Automatically pointing to satellite, level error<0.2°	
Azimuth Range	Unlimited, fine tune ±70°	
Elevation Range	7°~ 90°	
Polarization	±88°	
Terminal Dimensions (Excluding cables and backpack)	L 26.77 × W 25.59× H 9.45 in. L 680× W 650× H 240 mm	
Terminal Weight (Excluding cables and backpack)	≤18 Kg 39.7 lb. (Max)	
Environmental Performance		
Operational Wind	13.5m/s (49km/h)	
Operational Temperature	-25°C to +50°C	
Ingress Protection	IP66	
Humidity	0 ~ 95%	
96h Salt Fog Test	GJB 150.11A-2009	
Low Pressure (Altitude) Test	GJB 150.2A-2009	
High / Low Temperature Test	GJB 150.3A-2009/GJB 150.4A-2009	
Temperature Shock Test	GJB 150.5A-2009	
Vibration Test	GJB 150.16A-2009	
Interfaces		
Power	AC Power SP/SD13-3 Cores waterproof aviation connector	
Tx[3]	BUC IN F-Type Connector	
Rx[4]	LNB OUT F-Type Connector	
LAN	1× RJ45 10/100/1000	
	1× RJ45 Modem Debug[5]	
Debug[6]	SP/SD13-7 Cores waterproof aviation connector	
Other Function		
Wireless Router	IEEE 802.11b/g/n at 2.4GHz Access number: 30 Coverage (Unobstructed):50~100m	
Bluetooth Device	V4.2	
GNSS Device Supports	GPS/GLONASS/BeiDou-2/Galileo	
Batteries	3~15hours working time (3W BUC) [7]	
Color	PANTONE P 168-12 U	

Accessories	
Power Supply	5m (196.86 in.)
Network Cable	5m (196.86 in.)
Approval	
FCC	
Intelsat Approval	
CE	

1. According to customer's requirements.
2. The Terminal's power consumption is related to the Terminal model, Modem and BUC. This document takes the iDirect IQ200 Modem as an example to illustrate the Terminal's power consumption.
3. External modem connection, or switch between internal and external modem.
4. Downlink spectrum monitoring, or switching internal and external modem.
5. Modem upgrade/update interface.
6. ACU upgrade/update interface.
7. It can provide users with a variety of battery capacity configuration options. Due to different installation methods (Internal and External) and capacities, the power supply duration is different.
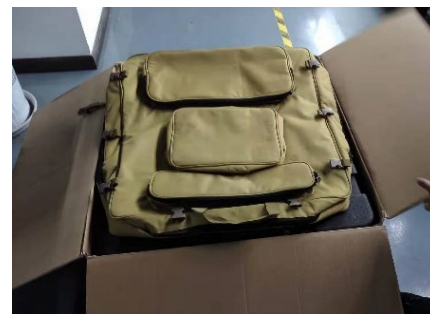
Terminal Dimensions:
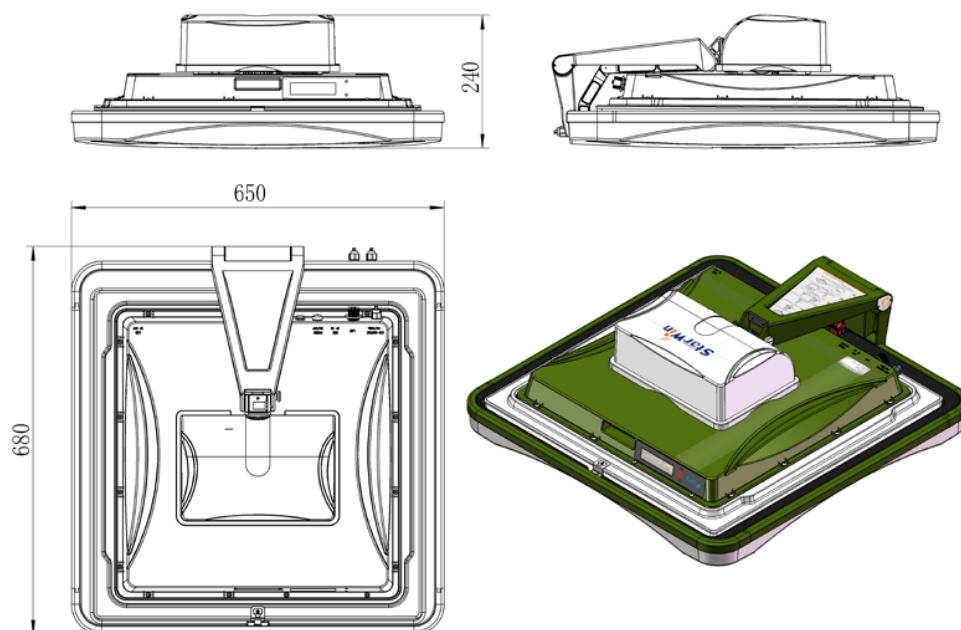
Terminal Package:

EPP Case

Backpack and Final package

Flat-Panel Portable Auto Terminal Packing List

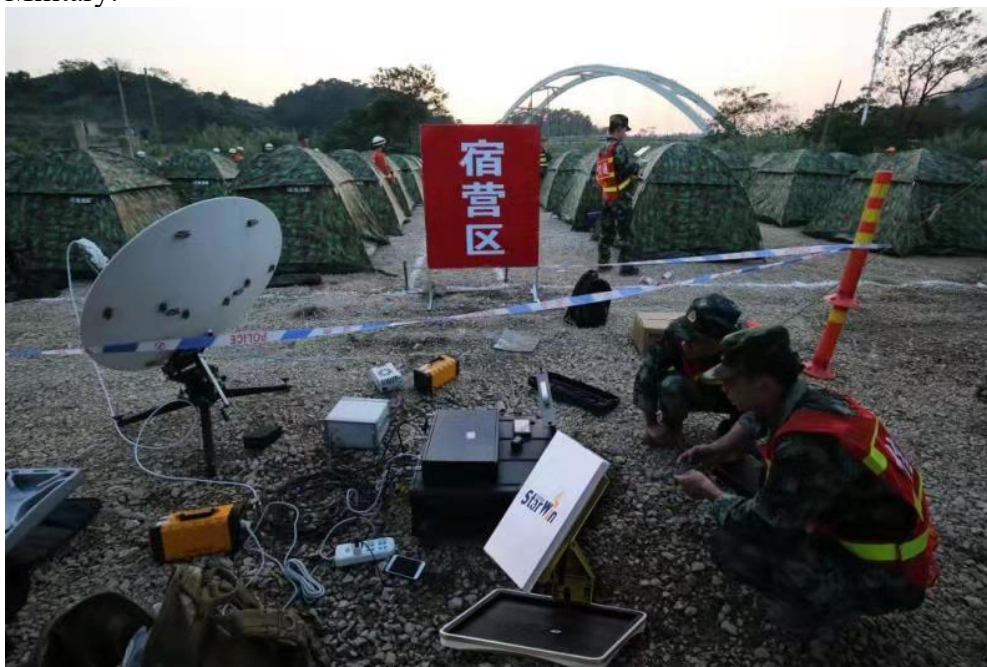| Item	Description	L (mm)	W (mm)	H (mm)	Vol. (m³)	N.W. (kg)	G.W. (kg)	Qty	Pkg Form
1	Flat-Panel Portable Auto Terminal FL60P-E	820	780	345	0.22	20.00	29.35	1	Carton Case
TOTAL					0.22	20.00	29.35	1	
Total Package: 1		**Total Vol.: 0.22cbm**			**Total N.W.: 20.00kgs**		**Total G.W.: 29.35kgs**		

Application Case:

Emergency rescue:

Military:

Outdoor adventure

Communication:

Personal application: