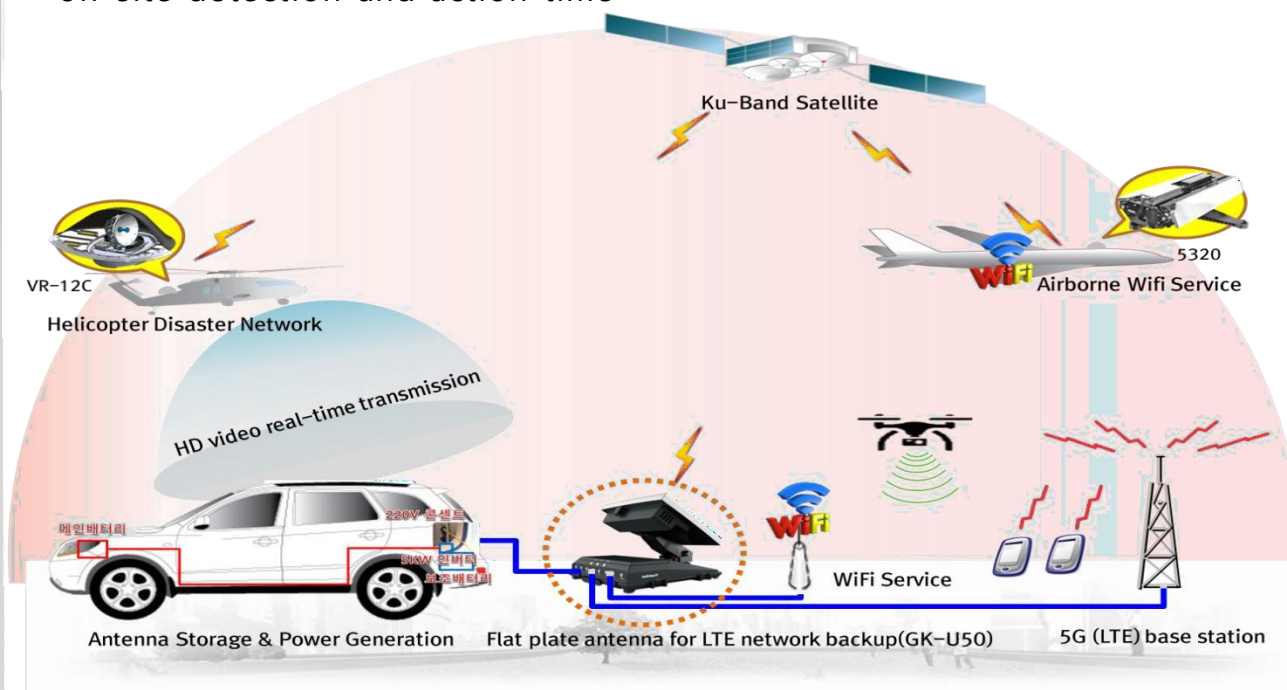


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Small (50cm) Flat Automatic Pointing Carrier Antenna(U50KR) & Disaster and Disaster Network (PS-LTE) satellite backup solution

Provide emergency WiFi service through satellite communication in case of LTE disaster and transmit HD video through HD camera to real-time on-site detection and action time



► Flat Antenna Satellite solution(FASS) system configuration

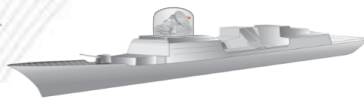
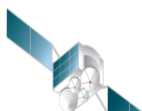
Small Flat Array Antenna U50KR



- Ku-band all Satellite support
- One-button automatic pointing
- HD video can be transmitted at 8Mbps
- One-box configuration without assembly
- Used for DSNG, VSAT, P2P, P2MP satellite communication network
- Ground command post disaster situation and the real-time task can interchange

ternal structure





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Small (50cm) Flat Automatic Pointing Carrier Antenna(U50KR) & Disaster and Disaster Network (PS-LTE) satellite backup solution

Model: U50KR

Item	Description
Antenna type	Waveguide horn array planar satellite antenna, supporting dual frequency, dual polarization
Antenna plate size	Falt Array : 500x500mm
Frequency	TX: 14.00 ~ 14.50GHz RX: 12.25 ~ 12.75GHz
Gain	RX: $\geq 36.5\text{dBi}$ TX: $\geq 37.5\text{dBi}$
G/T	$\geq 12.7\text{dB/K}$ (10° elevation , 80°K, clear sky)
The first side lobe	$\leq -22\text{dB}$
Polarization	Linear polarization
Polarization isolation	$\geq 37\text{dB}$ axial direction
VSWR	$\leq 1.25:1$
Acquisition mode	One button automatic or manually accurate operation
Alignment accuracy	$\leq 0.2\text{dB}$
Control terminal	Mobile Phone, PC or special handset
Acquisition time	≤ 3 minutes (from opening the cover to locking in satellite)
Angle range	Azimuth: $\pm 90^\circ$ Elevation: $0^\circ - 90^\circ$ Polarization: $\pm 90^\circ$
Water / Dust proof	IP65
Wind speed	18 meter/sec
Body Material	Carbon fiber
Carry weight	$\leq 35\text{Kg}$
Carry Dimensions	642mm(L)x580mm(W)x340mm(H)
Carry cage	25inch Carborn Carrer 1 Box
Working temperature	$-40^\circ\text{C} \sim +55^\circ\text{C}$
Relatively humidity	$\leq 98\%$
Built-in BUC	8/16/40W (Ku-Band)
Power supply	220VAC $\pm 10\%$, 60Hz
Max. power consumption	350W (full-power operation with 40W power amplifier)

U50KR Portable Flat Panel Antenna



U50KR portable high-integration flat panel satellite antenna provides high-speed data communications for video, voice and data transmission in Ku-Band, and it can be widely applied in the situation of earthquake relief, power line rescue, flood control and drought relief, public security, fire fight, news gathering and so on.

The satellite communication link can be setup in time based on the one button auto-acquisition solution, that enables the antenna deploy in short time and finish the satellite alignment rapidly. During satellite pointing, the errors caused by antenna heading and tilting can also be automatically corrected.

Industrial standard design with high reliability lets the antenna meet the needs of professional satellite communications.

U50KR antenna is designed to be packed/carried in a wheeled hard case, and it is easy for users to carry it and arrive at the destination quickly.

U50KR flat antenna chasis has enough room for installation of some additional communication base-band cards to extent its functions. As MODEM card, CODEC card and other user needed cards are added in the chasis, the device will be upgraded to an integrated satellite communication terminal.

Features

- Small size, high gain, low loss, low noise and RX/TX sharing the same plate
- High integration, including LNB & BUC
- Compact, portable and rapid deployment
- No installation and assembly required, only one-button-push for satellite acquisition
- Integrated Modem (Optional)
- Locking on DVB-S/S₂, dedicated carrier or beacon for auto tracking
- Memory capacity of satellite parameters
- Little or no user training needed
- User-friendly interface; Compatible with:
 - Mobile phone and tablet computer
 - Laptop computer
 - Special Handset controller

Detailed Product Description

Antenna:	Flat Panel Antenna	Type:	Fly Away, Auto Acquiring Satellite,Mobile Phone Control
Material:	Carbon Fiber, Black		

Flat array antenna is mainly used as military radar antenna with high power amplifier, especially in the mobile field, such as air-bone radar, ship-bone radar and sat-on-the-drive radar. It can either be used as supplementary station for telecommunication and TV program receiving. Taken waveguide horn as the basic unit, the antenna support dual directions communication in same panel. Apply it into satellite communication is rather creative event and features the following innovations.

(1)Highly integrated structure design

The communication terminal integrated satellite antenna, servo system, BUC, LNB in one portable case. The user just need one touch initiation after open the case when using it. And it can be taken away manually when the antenna stored. No reflector assembly and disassembly work necessary. Integrated structure design simplified operation, makes compact, mini-size, intelligent features a reality.

(2)Advanced technology and excellent performance

Flat panel array antenna adopts new gain acquiring mode based on the principle of electromagnetic wave diffraction and interferometry. Taken waveguide horn and ortho-mode coupler as the basic unit of the antenna, it can perform dual frequency, dual polarization, and Tx/Rx in the same horn function. It support full duplex communication with compacted design. All the waveguide horns on the flat panel direct to the satellite and No reverse radiation generated.

Except waveguide horn and coupler, antenna feed network adopts waveguide transmission either. Satellite amplifier and LNB connect the antenna with hard waveguide. All the radio sections of the antenna are constituted by waveguide which highly improve efficiency and decrease insert loss. The improvement of antenna efficiency means the increase of antenna gain and realize higher transmission rate with the same aperture. The antenna aperture is 500mm×500mm, receive gain no less than 36.5dBi and Tx gain no less than 37.5dBi, equal to 0.7m ordinary parabolic antenna. High power amplifier bearing waveguide and low side lobe, ≤ -22dB, flat panel array design make the antenna meets satellite communication requirements.

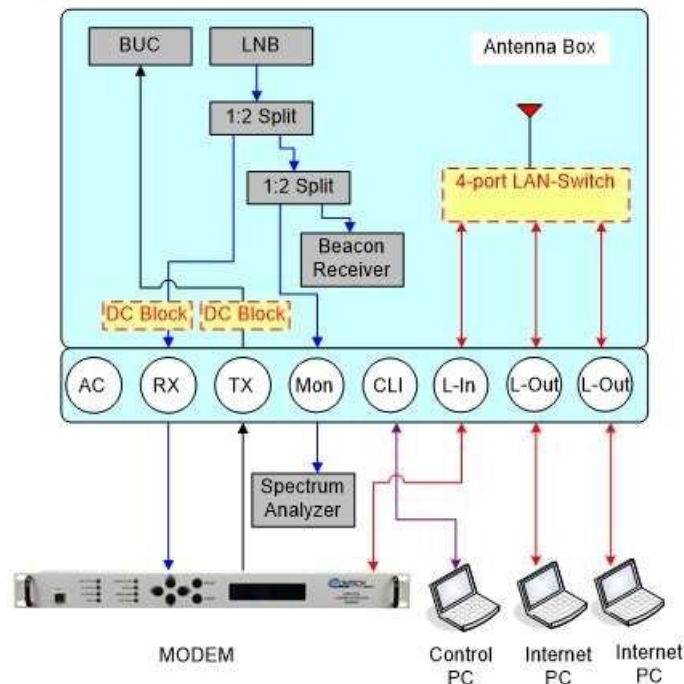
(3)One touch sat-acquiring operation



Built-in servo system makes the satellite acquiring operation completed by just touching one button.

From opening the portable case to point the satellite accurately, it takes only 3 minutes and vice versa. Automation simplified the antenna deployment and storage procedure. During the satellite acquiring process, the antenna can calibrate the initial azimuth and title error automatically and decrease requirements of special skills to the user.

(4) System Extend to Satellite Communication Terminal.



User can integrate satellite communication baseband cards such as MODEM card, CODEC card to extend the system into Satellite Communication Integrated Terminal according to their requirements. They can also realize the business communication only by connecting customer business terminal with customer data interfaces.

(5) New Materials, Lighter Weight

The carrying weight for the flat panel antenna is 31.5kg as its structure and cover are made of carbon fiber, this is designed to ensure antenna reinforced structure, but also easy carrying.

(6) Graphical User Interface On Mobile Phone

The flat panel antenna is designed to use mobile phone APP to complete whole operation. The mobile phone APP user-friendly graphical interface design (GUI) makes the antenna operation process easier and simpler. The mobile phone APP can store 256 satellite parameters. Generally, the flat panel antenna is a new satellite communication equipment featuring its compact, lightweight, high power, faster deployment, auto-pointing and easy carry away. The flat panel antenna is combination of various innovative technologies.

Specifications

Item	Description
Antenna type	Waveguide horn array planar satellite antenna, supporting dual frequency, dual polarization
Antenna plate size	500x500mm
Frequency	TX: 14.00~14.50GHz 9 (Extended Options) RX: 12.25~12.75GHz (Extended Options)
Gain	RX: $\geq 36.5\text{dBi}$ TX: $\geq 37.5\text{dBi}$
G/T	$\geq 12.7\text{dB/K}$ (10° elevation, 80°K, clear sky)
The first side lobe	$\leq -22\text{dB}$
Polarization	Linear polarization
Polarization isolation	$\geq 37\text{dB}$ axial direction

VSWR	≤1.25:1
Acquisition mode	One button automatic or manually accurate operation
Alignment accuracy	≤ 0.2dB
Control terminal	Mobile Phone, PC or special handset
Acquisition time	≤ 3 minutes (from opening the cover to locking in satellite)
Angle range	Azimuth: ±90°
	Elevation: 0° - 90°
	Polarization: ±90°
Body Material	Carbon fiber
Carry weight	≤ 35Kg
Carry Dimensions	642mm(L)x580mm(W)x340mm(H)
Carry cage	1
Working temperature	-40°C ~+55°C
Relatively humidity	≤98%
Built-in BUC	8/16/40W (Ku-Band)
High Performance LNB	PLL 65dB Gain LNB
Power supply	220VAC±10%, 60Hz
Max. power consumption	350W (full-power operation with 40W power amplifier)
Warranty	2 years



On The Move Mobile Antenna

T720 0.72m Ku Band Land Mobile Antenn

- Automatically collect and output carrier position and attitude information
- Storage of more than 10 satellite position parameter
- Terminal One-key start, antenna tracking the satellite automatically
- Polarization direction automatically adjust
- Power-down memory and protection
- Device detection and status checking
- Power-on self test and fault alarming
- Maximum communication speed 300Km/h



MODEL	T720	
Stabilization	2 axis stable and 4 axis tracking	
Antenna Type	Panel waveguide horn array	
Dimension	Φ1350mm×350mm	
Weight	75kg	
Frequency Range	RX : 12.25 ~ 12.75GHz TX : 14.00 ~ 14.50GHz	
Gain	RX≥36.5dBi (12.50GHz) TX≥37.4dBi (14.25GHz)	
Polarization	Linear	
Cross Pol Isolation	> 30dB	
Antenna Motion Range	Azimuth : 360°continuous rotation	Elevation : 0° ~ 90°
	Roll: ~	Pol: 360°continuous rotation
Track Mode	INS measurement and signal tracking	
Tracking Accuracy	0.2°RMS	
Initial Acquisition	≤120s	
Re-Acquisition	block time ≤10 minutes, acquisition immediately	
	10 minutes < block time ≤30 minutes · acquisition ≤5s	
	block time > 30minutes · acquisition ≤10s	
Input Power	AC220V 60Hz , standard power consumption 200W	
Operating Temperature	-40°C ~ 65°C	