

U6 Universal Monitoring All-in-One Machine

U6 is a universal GNSS receiver independently developed and designed by Toknav, and it is suitable for geological disaster monitoring and early warning. With self-developed built-in high precision and low power consumption module, the host adopts a small and integrated design meanwhile easy to install and maintain, the ultra-low power consumption design lowers the requirements for system configuration battery capacity and solar panel power, which helps reducing site construction and operating costs.



Characteristic

Linux intelligent system

Linux + Qualcomm Cortex-A7 Intelligent system platform, bringing users efficient computing and infinite expansion of functions.

High-precision and low-power GNSS module

The host integrates a high-precision and low-power positioning module, which supports BDS B1I/B2I/B3I/B1C/B2a, GPS L1/L2/L5, GLONASS L1/L2, Galileo E1/E5a/E5b, QZSS L1/L2/L5 multi-satellite solution.

4G Full Network

4G full Netcom solution based on Linux platform, fully supports 2/3/4G network, better compatibility, stronger signal, and more stable connection.

High-precision sensor

The host has a built-in high-precision three-axis accelerometer and barometer, combined with brand new designed fusion algorithm engine, which effectively eliminates false alarms and supports medium and long-term early warning.

Cloud service function

The host can regularly report its status such as device location, network condition, signal strength, and satellite reception condition etc., and supports cloud platform operations such as restarting, setting, and upgrading of remote devices.

ITEM		SPECIFICATION	REMARKS
HARDWARE PLATFORM		Qualcomm Cortex-A7	
SOFTWARE PLATFORM		Linux	
GNSS	GPS	L1/L2/L5	
	GLONASS	L1/L2	
	BDS	B1I/B2I/B3I/B1C/B2a	
	GALILEO	E1/E5a/E5b	



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	QZSS	L1/L2/L5	
	Positioning Data	NMEA-0183	
	Correction I/O protocol	RTCM3.X	
	Fixed convergence time	≤10s	
POSITIONING ACCURACY	Single (RMS)	Horizontal: 1.5m Vertical : 2.5m	
	RTK (RMS)	Horizontal: 8mm+1ppm Vertical: 15mm+1ppm	
	Static Accuracy	Horizontal: 2.5mm Vertical :5mm	
ACCELERATION MEASUREMENT	Measuring Range	±6g	
	Measuring Accuracy	±1mg	
	Sampling Interval	0s~24h	
	Upload Interval	0s~72h	
INCLINATION MEASUREMENT	Measuring Range	±90°	
	Measuring Accuracy	±1°	
	Sampling Interval	0s~24h	
	Upload Interval	0s~72h	
SYSTEM PLATFORM	Network Communications	FULL NETCOM LTE FDD: B1/B3/B5/B8 LTE TDD: B38/B39/B40/B41 TD-SCDMA: B34/B39 CDMA: BCO WCDMA: B1/B8 GSM: 900/1800MHz	
	Bluetooth	V2.1+EDR/V4.0 dual mode	
	WIFI	802.11 b/g/n	
	Lora Spread Spectrum Wireless Transmission	Frequency: 410.125~493.125MHz Transmit Power: 30dBm Communication Distance: 10km (open conditions)	
	Storage	32GB	
	SIM	External SIM , Full NETCOM	
	Custom Working Mode	Automatic Adjustment & Manual Adjustment	
INDICATOR	Power Indicator	Lights up when powered on	
	RTK Mode Indicator	Base Station: The base station starts up normally - always on Rover Station: Fixed solution - always on Single point/Differential/Floating point solution - flashing	
	SD Data Indicator	In the state of storing data, it flashes once every time 4K is written	
	4G Network Indicator	Lights up when the connection is successful	
	Sensor Indicator	Lights up when there is a sensor data connection	
ENVIRONMENT	Operating Temperature	-40℃~+85℃	
	Storage Temperature	-40℃~+85℃	
	Anti-seismic Grade	IEC60068-2-6	
	Protection	IP68	
ELECTRICAL CHARACTERISTICS	Voltage Input	9~36V DC	
	Power Consumption	1.8W	
	Interface	RS232*1 RS485*1	RS485 supports



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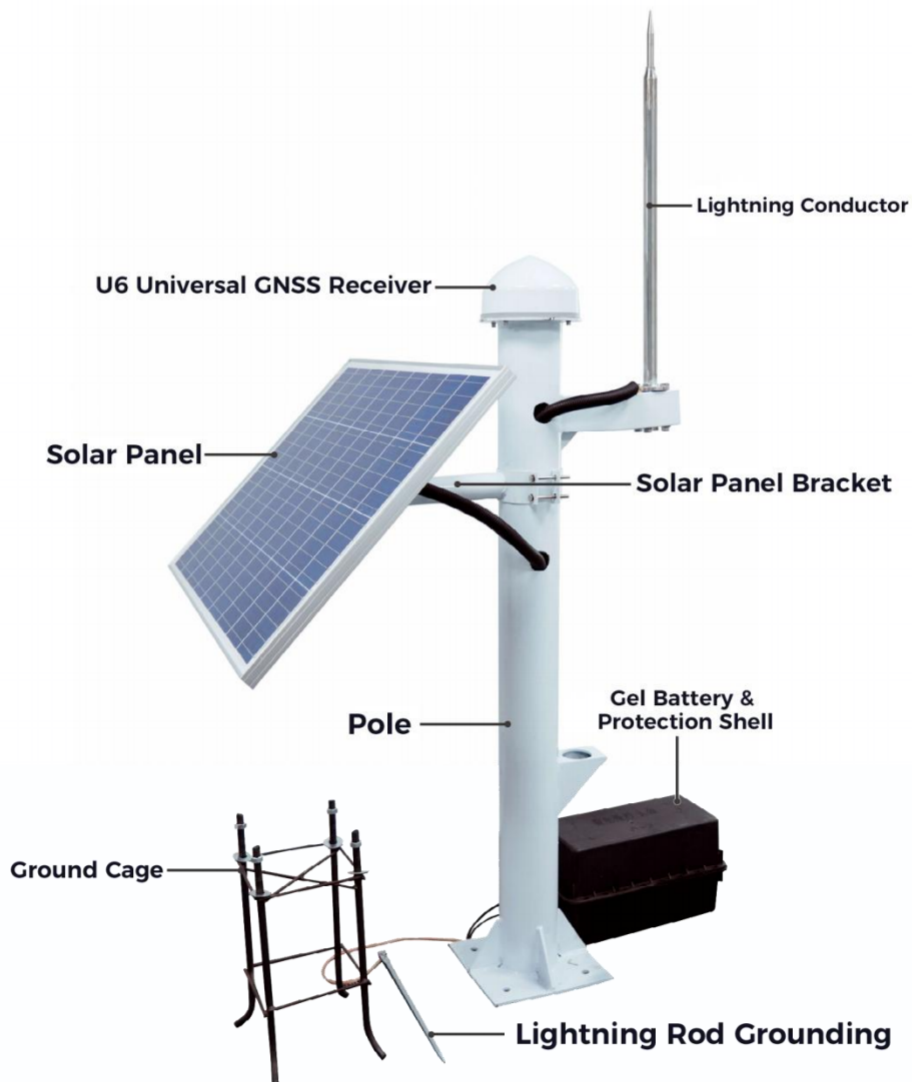
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			standard Modbus protocol
PHYSICAL	Material	PC+ABS+ Aluminum Alloy	
	Dimension	Φ213x136 (mm)	
	Weight	≤2.1kg	
A FULL SET	U6 Host	1 SET	
	Power supply line	1 PCS	

▲ Manufacturers may update parameters at any time, please refer to the latest product information.

- Equipped with electronic fence system, Toknav's product have area code restrictions. Any issue please contact Toknav or local dealers to verify the specific details.

Scheme final assembly diagram



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