

GEOLUT-600

Search & Rescue Local User Terminal

GEOLUT-600 from Honeywell Global Tracking is a local user terminal (LUT) that processes 406 MHz distress beacon alerts over geo-stationary satellites, and provides rapid notification to SAR authorities worldwide. The GEOLUT-600 is part of an integrated and comprehensive search and rescue (SAR) solution from Honeywell Global Tracking.

Advanced signal processing technology and custom designed software allow the GEOLUT-600 to offer 24-hour automatic monitoring and reporting of distress alerts over large territories. The GEOLUT 600 is fully configurable and exceeds COSPAS-SARSAT data analysis requirements, providing fast ambiguity resolution in emergency situations.

The GEOLUT-600 can be used in conjunction with data from low earth-orbit (LEO) satellites in a dual mode LEO-GEO system that provides unrivalled processing capabilities and reduces SAR response times.

The GEOLUT-600 makes it possible for SAR operators to quickly collect key information about beacons. This initial process can often identify false alarms prior to the retrieval of precise beacon location data from the LEOSAR system, and ensures that SAR resources will only be used for actual emergencies.

Honeywell Global Tracking is a global leader in the development of search and rescue technology, and has been a pioneer in the field for over 30 years.



Features

- **Reliability:** The GEOLUT-600 offers exceptional uptimes, accuracy and reliability, and has been at the heart of worldwide SAR operations for decades
- **Fast Detection:** GEOLUT-600 systems detect emergency alerts within seconds in each coverage area, making it possible to start SAR efforts immediately
- **Advanced Signal Processing:** Using noise-reducing signal processing, GEOLUT systems can minimize alert errors, leading to more efficient use of SAR resources
- **Flexible:** Fully configurable, making it possible to precisely match the needs of customers
- **Standards compliant:** Meets and exceeds the official COSPAS-SARSAT requirements
- **Seamless integration:** Ease-of-integration into existing SAR systems saves time and money

GEOLUT-600 Technical Specifications

Physical	
Width	Standard 19" (48.3 cm) rack enclosure
Height	22U in standard configuration. Custom configurations available.
Satellite Connectivity	
Satellite Type	Geo-stationary
Satellite Frequency	1544.5 MHz downlink signal
Alert Beacon Frequency	406 MHz
Terrestrial Connectivity	
Ethernet	10/100/1000 Mb/s
Data Communication to Mission Control Centre (MCC)	Beacon alerts, status data, including alarm and warning messages, calibration data
Data Communication from MCC	Orbit data, calibration data, operator commands
Servers	
Number of Servers	2 per system. One for data collection and one for signal processing and alert generation
Operating Systems	Windows Server 2003
Processor(s)	Intel Xeon 5500 and 5600 Series
RAM	4 GB in standard configuration. System supports up to 192 GB.
Signal Processing	
Block Down Converter	Convert raw satellite downlink signal to 4.5 MHz intermediate frequency, out-of-band noise filtering
Data Collection	Data input control, phase unwrap and demodulation, spectrum analysis
Decoding	406 MHz beacon signal detection, signal demodulation and decoding, message integration and validation, message archiving
Data Analysis	Spectrum analysis, signal enhancement
Spectrum Data Display	Spectrum plots (power vs frequency at a given time), spectrogram plots (time vs frequency, with amplitude shown as grey-scale density), dot plots (real time and playback)
Status Monitor & Display	Data collection status, data collection environment, system status, snapshot status, environmental data trends
System Monitoring	
Environmental	Rack temperature, room temperature
Security	Rack door open sensors (front and back)
Antenna	
Type	Fixed
Size	Standard antenna: 3.8 m (12.5 ft) diameter. A 5 m (16.4 ft) antenna is also available.
Beamwidth	1.4° degrees (Standard antenna), 1.1° degrees (5 m antenna)
Environmental	Can withstand winds of up to 220 km/h (120 m/h)
Control Unit and Motor Drive	Yes (optional)
Certification	
COSPAS-SARSAT	Yes

For more information:

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