

# LEOLUT-600

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## Search & Rescue Local User Terminal

LEOLUT-600 from Honeywell Global Tracking is a local user terminal that processes 406 MHz distress beacon alerts over Low Earth Orbit (LEO) satellites and automatically provides notification to SAR authorities worldwide. The LEOLUT-600 is part of an integrated and comprehensive search and rescue (SAR) solution from Honeywell Global Tracking.

The LEOLUT-600 automatically monitors alerts coming from LEO satellites orbiting the earth. Using triangulation and advanced Doppler processing, the LEOLUT-600 can pinpoint the location of an alert signal in its coverage zone, even if the beacon is not equipped with Global Positioning System (GPS).

The LEOLUT 600 is fully configurable and exceeds COSPAS-SARSAT data analysis requirements, providing fast ambiguity resolution in distress situations.

The LEOLUT-600 can be used in conjunction with data from geostationary (GEO) satellites in a dual mode LEO-GEO system that provides unrivalled processing capabilities, optimizes beacon location accuracy and reduces SAR response times.

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

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- **Reliability:** The LEOLUT-600 offers exceptional uptimes, accuracy and reliability, and has been at the heart of worldwide SAR operations for decades
- **Advanced Signal Processing:** Using sophisticated Doppler-based signal processing, LEOLUT systems can pinpoint the location of alert beacons not equipped with GPS, enabling coordinated SAR operations
- **Efficient:** Provides fast ambiguity resolution of alert beacon signals, especially in geographies where fewer satellites may be seen, 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

# LEOLUT-600 Technical Specifications

Physical	
Width	Standard 19" (48.3 cm) rack enclosure
Height	22U in standard configuration. Custom configurations available.
Satellite Connectivity	
Satellite Type	Low Earth Orbit (LEO)
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)	Located and unlocated incident solution data, beacon message data (for combined LEO-GEO processing), status data, including alarm and warning messages, calibration data
Data Communication from MCC	Orbit data, calibration data, pass schedule data, operator commands
Servers	
Number of Servers	2 per system. One for data collection and one for beacon localization and alerting
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	
Low Noise Amplifier/Down Converter (LNA/DC)	Converts raw satellite downlink signal to 4.5 MHz intermediate frequency, out-of-band noise filtering Can transmit a received satellite signal with no loss in RF performance over long distances
Data Collection	Data input control, phase unwrap and demodulation, spectrum analysis
Beacon Signal Decoding	406 MHz beacon signal detection, signal demodulation, message validation, message archiving
Data Stream Decoding	Bit synchronization, frame synchronization, message extraction, message formatting
406 MHz Data Validation	Time, frequency, beacon message
Data Analysis	Spectrum analysis, signal enhancement
Orbit & Pass Scheduling	Automatically updates satellite orbit data after every satellite pass
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)
Power	Rack power supply sensor
Antenna	
Type	Phased array with radome
Size	1.4 m (4.6 ft) diameter.
Beamwidth	7.9° degrees
Environmental	Can withstand winds of up to 240 km/h (150 m/h)
Control Unit and Motor Drive	Yes
Antenna Control Software	Antenna device control, positioning the antenna, tracking a satellite pass, antenna diagnostics
Certification	
COSPAS-SARSAT	Yes

## For more information:

[www.gt.honeywell.com](http://www.gt.honeywell.com)

## Honeywell Global Tracking

400 Maple Grove Rd.  
Ottawa, ON  
K2V 1B8, Canada  
[www.honeywell.com](http://www.honeywell.com)



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