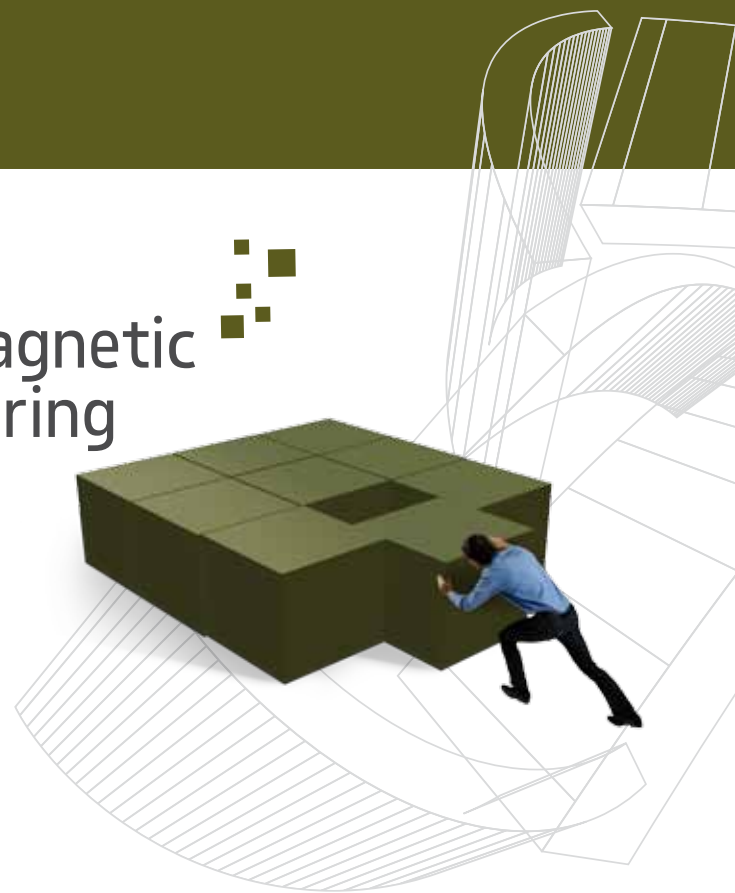


Man-Portable Electromagnetic Surveillance and Monitoring



LS OBSERVER

Portable Monitoring Unit



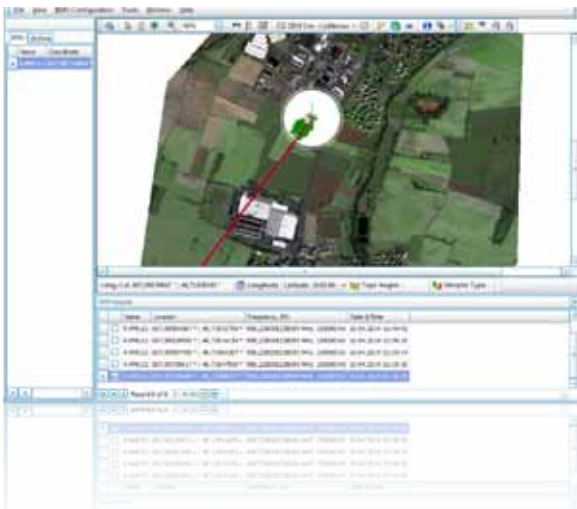
Great Flexibility with the LS OBSERVER PMU (Portable Monitoring Unit)

The LS OBSERVER PMU is the smallest monitoring unit in the LS OBSERVER family of systems. The PMU enables you to obtain, measure, analyse and store collected data within the frequency range 9kHz-4.4GHz or from 100kHz-12.4GHz. The unit can be used as a tactical handheld or mobile sensor or networked to support both the operational and strategic electronic environment picture.

A large screen and a touch screen provides an intuitive interface to control the device. LS OBSERVER small and smart sensors' can be remotely managed, enabling them to run in stand-alone mode 24/7. The ruggedised systems can operate effectively in extreme environmental conditions. LS telcom offers many PMU accessories which include tripods, cables and portable aerials.

Use LS OBSERVER for the following Measurement Applications

- Geo-spatial and temporal spectrum monitoring
- Area of operations (AOO) frequency channel occupation
- Network coverage measurements
- Direction finding to locate illegal or interfering transmitters
- Electromagnetic environment surveillance for operational area, border control and VIP / corporate protection
- Control of critical communications networks
- White space detection
- Tunnel measurements



Direction finding measurement results



Drive test display

A family of 5 different types of Remote Monitoring Units (RMU) is available with LS OBSERVER de

LS OBSERVER TMU Transportable Monitoring Unit

Ideal for temporary mobile and fixed measurements, battery powered.



LS OBSERVER FMU Fixed Monitoring Unit

Ideal for continuous measurement of the operational electromagnetic environment. It provides large area and frequency coverage and geo-location (TDOA) capability.



LS OBSERVER MMU Mobile Monitoring Unit

Integration of LS OBSERVER offers a 'Rapid Reaction' capability including off-road terrain positioning of sensor



Options & Accessories

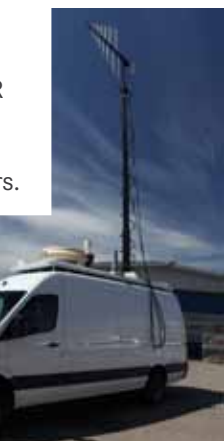


Why the LS OBSERVER PMU?

- Real or near-real time indications and warnings (I&W)
- Real, near-real time or post mission measurement analysis of data
- Tactical to strategic system capability
- Enables comparison of live and archived data for electromagnetic 'trend analysis'
- Scalable capability - individual networked or part of a strategic system

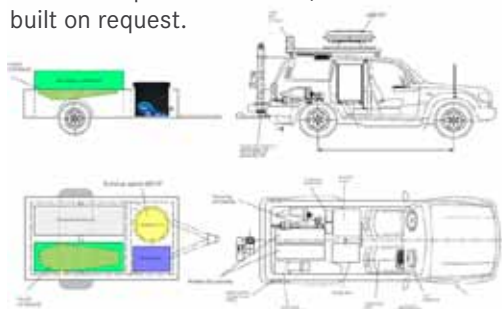


Depending on your needs - for flexible use and a wide range of applications



LS OBSERVER System Integration

Customer specific solutions, built on request.



Airborne Measurement Service Using Remotely Piloted Aircraft (RPA)

RF & antenna pattern measurements, site inspection and very mobile monitoring.



Service offered by **Colibrex**
Member of the LS telecom Group

Technical Details LS OBSERVER PMU

		PMU 100	PMU 160
RF Characteristics			
RF Characteristics	Frequency range	9 kHz to 4.4 GHz	100 kHz to 12.4 GHz
	Scanning speed	up to 140 MHz/s	
	Max. input level	+20 dBm, 0 VDC	
	IQ bandwidth	up to 240 kHz	
	Frequency accuracy	1 ppm	
Connectivity			
Connectivity	RF antenna inputs	1x N-Type	
	External GPS antenna input	yes	
	Wired networking	1x Gigabit-Ethernet	
	Wireless networking	opt. UMTS, opt. LTE	
	Wireless local networking	opt. WiFi (802.11 b/g), opt. Bluetooth	
Geolocation			
Geo-location	Direction Finding (DF)	yes*	
	Power Difference of Arrival (PDoA)	yes	
	Time Difference of Arrival (TDoA)	no	
	GPS receiver	yes	
	Integrated GPS antenna	yes	
Storage			
Storage	Storage time of raw data	up to 30 days	
	Storage time of statistic data	up to 2 years	
Environmental Parameters			
Environmental Parameters	Ruggedised	yes	
	Temperature range	-5°C** to +40°C	-5°C** to +40°C
	Power supply	90-264V, 50-60Hz or 11-32V, DC	
	Power consumption	max. 40 VA	
	Battery runtime (typ.)	2 hours	
	Weight (system unit)	< 5 kg	
	Dimensions in mm (W/H/D)	260 x 230 x 80	
	Humidity (non condensing)	up to 100 %	
	Shock / Vibration	40 g / 11 ms	
	Protection	IP 54	
	Colour	black / silver, custom military colour on request	

*: requires an additional directional antenna

** : startup temp. 0°C

For further information, please visit our website: www.LStelcom.com
or contact us: Info@LStelcom.com.