

Also available as a true multi-receiver unit.  
Enabling parallel monitoring, geolocation & analysis.



Radio Monitoring

# Transportable Monitoring

LS OBSERVER

Transportable Monitoring Unit (TMU) 312n



# TECHNICAL DETAILS **LS OBSERVER TMU 312n**

RF Characteristics		
RF Characteristics	<b>Frequency range</b>	100 kHz to 12.4 GHz
	<b>Scanning speed</b>	up to 140 MHz/s
	<b>Max. input level</b>	+16 dBm, 0 VDC
	<b>Instantaneous bandwidth</b>	up to 240 kHz
	<b>Frequency accuracy</b>	1 ppm
Connectivity		
Connectivity	<b>RF antenna input</b>	1x N-Type, opt. 4-to-1 antenna switch or diplexer
	<b>External GPS antenna input</b>	yes
	<b>Wired networking</b>	1x Gigabit-Ethernet
	<b>Wireless networking</b>	UMTS, LTE
	<b>Wireless local networking</b>	opt. WiFi (802.11 b/g/n)
Geolocation		
Geolocation	<b>Direction Finding (DF)</b>	yes, with optional directional antenna
	<b>Gain Ratio of Arrival (GROA+®)<sup>1</sup></b>	yes
	<b>Time Difference of Arrival (TDoA)</b>	no
	<b>GPS receiver</b>	yes
	<b>GPS antenna input</b>	1x SMA, antenna included
Storage		
Storage	<b>Storage time of raw data<sup>2</sup></b>	up to 30 days
	<b>Storage time of statistic data<sup>3</sup></b>	up to 2 years
Environmental Parameters		
Environmental Parameters	<b>Ruggedized</b>	yes
	<b>Temperature range<sup>4</sup></b>	-30°C up to +60°C
	<b>Power supply</b>	10-32 VDC or 100-240 VAC, 50-60 Hz
	<b>Power consumption</b>	typ. 60 W with one receiver (90 W with second receiver) charged, max. 300 W while charging
	<b>Battery runtime</b>	typical 8 hours at 25°C with one receiver, typical 5 hours at 25°C with two receivers
	<b>Weight<sup>5</sup></b>	system unit: 65.5 kg, antennas: 6.5 kg, covers: 10.5 kg
	<b>Dimensions in mm (W/H/D)</b>	system unit: 600 x 700 x 750 mm system unit + covers: 600 x 700 x 900 mm system unit + covers + antennas: 600 x 1300 x 900 mm
	<b>Humidity (non-condensing)</b>	up to 100 %
	<b>Protection<sup>6</sup></b>	IP 54 to IP 67
	<b>Colour</b>	white
<b>Software</b>	LS OBSERVER RMS (Remote Monitoring Software)	

<sup>1</sup> Including option GROA+®

<sup>2</sup> Using LS noise reduced raw data material (not IQ data)

<sup>3</sup> Using LS statistical processed raw data

<sup>4</sup> Including option pre-heating or with startup-temperature greater -20°C

<sup>5</sup> Including batteries (dependent on battery type)

<sup>6</sup> IP 54 with ventilated covers (standard), IP 67 for storage with non ventilated covers and option cooling

For further information, please visit our website [www.LStelcom.com](http://www.LStelcom.com) or contact [Info@LStelcom.com](mailto:Info@LStelcom.com).