



FIELD TELLURIC STATION LEMI-419E

Main features:

- 8 telluric field channels
- Frequency range (DC...100) Hz
- Satellite synchronization
- Low noise level
- Special software for real-time data acquisition and visualization
- Digital interface

Main application area:

- Exploration of different mineral deposits

Composition (left to right):

- Electronic unit
- Cable Plug 97-3106A-24-28S
- USB to RS-422 converter MOXA
- GPS antenna
- Power supply cable 1.8m
- Interface cable 6m



Telluric station for electric measurements LEMI-419E (further – TSE) is intended for the study of electric field fluctuations in the frequency band DC – 100 Hz in field or laboratory conditions. The TSE is providing the measurements and recording in automatic mode of natural and controlled source electric field variations and also visualization at

external PC display of 8 electric channels ($E_1 – E_8$). A filter-free technology is used in input stages (it means “without high-pass filters”) to allow registration of super-long period signals. Automatic compensation circuits independent for every electric channel are implemented in the TSE to avoid the channels saturation in case of too high DC input voltage.

Number of electric channels:	8
Frequency band:	DC...100 Hz
Measured ranges of electric signal (for each component)	$\pm 10, \pm 1, \pm 0.1V$
Automated offset compensation range	± 5000 mV
Resolution of electric meter	0.1 μV
Noise of electric meter at the frequency 1 Hz	< 0.3 μV rms
Electric meter input impedance	> 100 MOhm
Sample rate:	500 per s
ADC resolution	24 bits
Digital output interface (UART 921.6kb/sec)	RS-422
GPS timing, geographical coordinates and altitude determination	
GPS timing error	< 10 μ sec
Operating temperature range	Minus 20 to $+50^{\circ}C$
DC power supply voltage (12V)	9...18 V
Power consumption	< 5 W
Weight of LEMI-419E electronic unit	2.5 kg

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