



non-linear detectors

LORNET 

 ELVIRA

ELVIRA – ELECTRONIC HIGH TECHNOLOGIES DEVELOPMENT

LORNET IS A FAMILY OF NON-LINEAR DETECTORS FROM RUSSIA'S LEADING EXPERT IN THE FIELD OF RADIO EQUIPMENT.

Lornet devices fulfil a wide range of tasks in information security and its characteristics are highly competitive to the best examples of the world's leading manufacturers.

OUR DEVELOPMENTS CREATE THE TECHNOLOGICAL TRENDS IN THE WORLD MARKET OF NON-LINEAR DETECTORS

- 2015 the world's first non-linear detector featuring a spectrum analyzer – LORNET Star
- 2013 the world's first dual-frequency non-linear detector – LORNET 836
- 2009 the world's first non-linear detector featuring a spatial selection – LORNET 36
- 2008 the world's first non-linear detector featuring a probing signal 2400 MHz – LORNET 24

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LORNET STAR



The world only one multifunctional non-linear detector featuring an integrated spectrum analyzer of 2nd and 3rd harmonics and interchangeable antenna unit of 3 frequency bands: 800 MHz, 2400 MHz and 3600 MHz



Offers the combination of operating options in absorbing medium with high humidity, the detection of small (less than 1 cm^2) semiconductor elements and the remote detection with spatial target selection.



Integrated spectrum analyzer of 2nd and 3rd harmonics can significantly improve the identification of semiconductor elements. The availability of interchangeable antenna units delivers the benefit of all three frequency range.



Universal control knob with interchangeable antenna units and universal telescopic rod can easily convert the detector from discover to inspection mode and back.



Reliable detection of the SIM-card at a distance of 15 cm (2400 MHz) and 60 cm (3600 MHz).

APPLICATION

INDOOR USE

Performing indoor search works by taking advantage of all 3 bands

DURING INSPECTIONS

Procedure Effective at inspection work

ON OPEN TERRAIN

The narrow beam of the antenna pattern at 16 degrees and the availability of laser illumination provide convenient search works on the area



WORKING WITH THE DEVICE

An automatic system of protection against centered jamming

Continuous mode for effective analyze of the nature of semiconductor

Non effect level of electromagnetic radiation towards the operator

CONTROL

Vivid and explicit indication in operating mode

User-friendly button control



SUPPLY PACKAGE

- Control knob Lornet Star
- Universal telescopic rod Lornet Star
- 2 removable (LI-ION) rechargeable batteries (12V),
- Battery charging container
- Battery charging adaptor (220V)
- Lornet Start Package can include up to 3 Interchangeable Antenna Unit (IAU) from 4 options:
 - IAU Lornet Star 08, 800Mhz (option)
 - IAU Lornet Star 24, 2400Mhz (option)
 - IAU Lornet Star 24s, 2400Mhz with spectrum analyzer
 - IAU Lornet Star 36m, 3600Mhz (option)
- Transportation bag
- Documentation (user manual, certificate)

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LORNET

24

Ultracompact and lightweight
non-linear detector with 2400
MHz probe frequency



Signal range detects the ultra-small
<math>< 1 \text{ cm}^2</math> semiconductor elements



Folding, ultra-compact and
lightweight — only 700 grams



Reliable detection of the SIM card at a
distance of 10-15 cm



APPLICATION

INDOOR USE

Lornet 24 is suitable for indoors scouting, perfect in business trips

IN TRANSPORT

Lornet 24 is uniquely suited for search works in confined spaces, for instance in cars

DURING INSPECTIONS

Resemblance to the metal detector makes Lornet 24 good for inspections

WORK WITH THE DEVICE

An automatic system of protection against centered jamming

Continuous mode for effective analyze of the nature of semiconductor

Non effect level of electromagnetic radiation towards the operator

CONTROL

Vivid and explicit indication in operating mode

User-friendly button controller

Automatic and manual mode of power control

PACKAGE

Compact, lightweight and inconspicuous transportation bag

Wireless headset for comfortable work



SUPPLY PACKAGE

- R-T unit with a telescopic rod and a control knob
- 2 removable (LI-ION) rechargeable batteries (3.6V)
- Battery charging container
- Battery charging adaptor (220V)
- Wireless headset and receiver
- AC adaptor for the receiving device (220V)
- Transportation bag
- Documentation (user manual, certificate)

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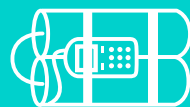
LORNET

36

Exclusive non-linear detector with the probing signal of 3600 MHz and the possibility of remote detection of semiconductor elements with a spatial target selection



Range of the probing signal and the antenna design enable you to perform during the scouting works remotely spatial selection of location of semiconductor elements



Remote analysis of suspicious objects for the presence of electronic components at a safe distance of 3-5 meters



Reliable detection of the SIM-card at a distance of 1 meter

APPLICATION

INDOOR USE

Holding search works in areas with a high density of objects containing electronic components

ON OPEN TERRAIN

The narrow beam of the antenna pattern at 16 degrees and the availability of laser illumination provide convenient search works on the area



WORK WITH THE DEVICE

An automatic system of protection against centered jamming

CW mode (analog 20K mode) for effective analyze of the nature of semiconductor

Non effect level of electromagnetic radiation towards the operator

CONTROL

Vivid and explicit indication in operating mode

User-friendly button controller

Automatic and manual mode of power control

PACKAGE

Wireless headset for comfortable work

SUPPLY PACKAGE

- R-T unit with a control knob
- 2 removable (LI-ION) rechargeable batteries (3.6V),
- Battery charging container
- Battery charging adaptor (220V)
- Wireless headset and receiver
- AC adapter for the receiving device (220V)
- Transportation bag
- Documentation (user manual, certificate)



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LORNET

836

The world only non-linear detector operating simultaneously in two frequency ranges: 800 MHz and 3600 MHz



Combines the advantages:

- the low-frequency range (800 MHz) — the work in absorbing medium with high humidity
- high frequency range (3600 MHz) — spatial selection of semiconductor elements location



Compact device, the weight is 1,000 grams



Reliable detection of the SIM-card at a distance of 80 centimeters



APPLICATION

ON OPEN TERRAIN

Efficient discovering algorithm: Fast detection of suspicious semiconductor elements (800Mhz) with their further spatial selection (3600Mhz)

WORK WITH THE DEVICE

An automatic system of protection against centered jamming

CW mode (analog 20K mode) for effective analyze of the nature of semiconductor

Non effect level of electromagnetic radiation towards the operator

CONTROL

Vivid and explicit indication in operating mode

User-friendly button controller

Automatic and manual mode of power control

PACKAGE

Wireless headset for comfortable work

Very compact and ultra-lightweight in its class



SUPPLY PACKAGE

- R-T unit with a control knob
- 2 removable (LI-ION) rechargeable batteries (3.6V),
- Battery charging container
- Battery charging adaptor (220V)
- Wireless headset and receiver
- AC adapter for the receiving device (220V)
- Transportation bag
- Documentation (user manual, certificate)

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LORNET

Reliable, simple to operate and inexpensive non-linear detector in classical performance with the probing frequency of 900 MHz



Lornet provide the means for the detection of semiconductor elements through obstacles with high damping (eg, concrete) and in humid environments



Lornet is equipped with an automatic system of protection against centered jamming by criterion of a minimum noise in the receiver path of the 2nd harmonic



The telescopic handle and thin structure of the antenna unit (18mm) enable to operate in hard to reach places



APPLICATION

INDOOR USE

Lornet is suitable for indoors search operations

WORK WITH THE DEVICE

Record-breaking low weight in its class

Non-effect level of electromagnetic radiation towards the operator

CONTROL

Vivid and explicit indication in operating mode

User-friendly button controller

Automatic and manual mode of power control

PACKAGE

Compact size and telescopic rod

Wireless headset for comfortable work

SUPPLY PACKAGE



- R-T unit with a control knob
- 2 removable (LI-ION) rechargeable batteries (3.6V),
- Battery charging container,
- Battery charging adaptor (220V)
- Wireless headset and receiver
- AC adapter for the receiving device (220V)
- Transportation bag
- Documentation (user manual, certificate)

TECHNICAL CHARACTERISTICS

LORNET STAR

Interchangeable antenna unit:	//08	//24	//24c	//36M
The frequency of the probing signal in the range	800MHz	2400MHz	2400MHz	3600MHz
The maximum power of the probing signal (max. // average):				
Pulse mode	10W//230mW			18W//112mW
Continuous mode	//300mW			---
Pulse mode with small duty cycle (CW)	---	---	---	6W//375mW
Receiver delicacy	-110dBm (-140BmW)			
The adjustment range of the probing signal power	20Bm			
The dynamic range of the receive path	24Bm			
Battery life at maximum power in a pulsed (continuous) mode	3,0 h (1,5 h)		2,5 h (1,5 h)	
Device dimension	40x20x7cm			40x20x20cm
Telescopic rob size	54x4x4 cm(86x4x4cm)			
The full weight of the item in active status without rob	1 kg			
Telescopic rob weight	0,2 kg			
The bag dimensions	65x30x20cm			
Maximum weight of the devices in the bag	8 kg			
The operating temperature range	from +5 to +40° C			

LORNET 24

The frequency of the probing signal in the range	2400MHz +/-
The maximum power of the probing signal (max. // average):	
Pulse mode	10W//230mW
Pulse mode with small duty cycle (CW)	200mW
Receiver sensitivity, not worse than	-110dBm(-140BmW)
The adjustment range of the probing signal power	20Bm
The dynamic range of the receive path	24Bm
Battery life at maximum power in a pulsed (continuous) mode	3 h (1,5 h)
Device dimension	39x10x6 (22x11x7)cm
The full weight of the item in active status	0,7 kg
The full weight of the item in a bag	1,7 kg
The operating temperature range	from +5 to +40° C

LORNET 36

The frequency of the probing signal in the range	3600MHz +/-
The maximum power of the probing signal (max. // average):	
Pulse mode	18W//112mW
Pulse mode with small duty cycle (CW)	12W//600mW
Receiver sensitivity, not worse than	-110dBm(-140BmW)
The adjustment range of the probing signal power	20Bm
The dynamic range of the receive path	24Bm
Battery life at maximum power in a pulsed (continuous) mode	3 h (1,5 h)
Device dimension	47x32x19 (32x32x22)cm
The full weight of the item in active status	1,5 kg
The bag dimensions	44x30x35 cm
The full weight of the item in a bag	3,6 kg
The operating temperature range	from +5 to +40° C

LORNET 836

The frequency of the probing signal in the range	800MHz+/- / 3600MHz +/-
The maximum power of the probing signal (max. // average):	
Pulse mode	18W//64mW
Pulse mode with small duty cycle (CW)	6W//375mW
Receiver sensitivity, not worse than	-110dBm (-140BmW)
The adjustment range of the probing signal power	20Bm
The dynamic range of the receive path	24Bm
Battery life at maximum power in a pulsed (continuous) mode	2,5 h (1,5 h)
Device dimension	31x31x28 cm
The full weight of the item in active status	1 kg
The bag dimensions	44x30x35 cm
The full weight of the item in a bag	4,5 kg
The operating temperature range	from +5 to +40° C

LORNET

The frequency of the probing signal in the range	900MHz +/-
The maximum power of the probing signal (max. // average):	
Pulse mode	10W//230mW
Pulse mode with small duty cycle (CW)	300v
Receiver sensitivity, not worse than	-110dBm (-140BmW)
The adjustment range of the probing signal power	2Bm
The dynamic range of the receive path	24Bm
Battery life at maximum power in a pulsed (continuous) mode	3 h (1,5 h)
Device dimension	102x16x6 (54x16x7) cm
The full weight of the item in active status	1 kg
The bag dimensions	63x22x11 cm
The full weight of the item in a bag	3,1 kg
The operating temperature range	from +5 to +40° C



www.lornet-elvira.com

Lornet Export is the official exporter of the Lornet Series Non-linear junction detectors