### LORNET STAR The world's only non-linear junction detector featuring

- integrated spectrum analyzer of 2nd and 3rd harmonics and
- interchangeable ransmitter-receiver modules of 3 frequency bands: 800 MHz, 2400 MHz and 3600 MHz.



Telescopic rod

#### Main Competitive Advantages:

- Facilitates decision-making on the separation of corrosive and artificial semiconductors
- there is a built-in module measuring the reflected power of the probing signal from the research object, which allows it to estimate the extent of the reflecting surface of the object
- automatic protection system against centered jamming by criterion of a minimum noise in the receiver path of the 2nd harmonic
- electromagnetic radiation towards the operator is many times less than one set by the Regulator

# Lornet Star delivery set can include up to 3 interchangeable antenna modules from 5 available:

Lornet Star //08 - with antenna module for 800 MHz (all-weather and relatively low attenuation of signals in dense medium (brick, concrete, etc.))
Lornet Star //08c - with antenna module for 800 MHz with spectrum analyzer
Lornet Star //24 - with antenna module for 2400 MHz (opportunity to detect SIM cards and small (about 1 cm <sup>2</sup> ) semiconductor devices) or
Lornet Star //24s - with antenna module for 2400 MHz with spectrum analyzer
Lornet Star //36m - with antenna module for 3600 MHz (provides spatial selection, which facilitates search operations in premises containing legal electronic devices)

#### Lornet Star features:



Combination of operating options in absorbing medium with high humidity; detection of small (less than 1cm2) semiconductor elements and the remote detection with spatial target selection

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

## Int %

Integrated spectrum analyzer of 2nd and 3rd harmonics, that can significantly improve the identification of semiconductor elements (for 800 MHz and 2400 MHz antennas)



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



**Graphical LED pannel** 

Spectrum of re-emitted signal of 2nd harmonic

Level of probing signal power in dBm

Level of probing signal re-emitted by the object in dBm

#### **Technical characteristics:**

Spectrum of re-emitted signal of 3rd harmonic

Antenna module	08	08c	24	24s	36m	
Frequency of probing signal in the range	800 MHz	800 MHz	2400 MHz	2400 MHz	3600 MHz	
The maximum power of the probing signal (max. // average):						
Pulse mode	10W//230mW	10W//230mW	10W//230mW	10W//230mW	18W//112mW	
Continuous mode	300mW	300mW	300mW	300mW	-	
Pulse mode with low off-duty factor (CW)	-	-	-	-	6W//375mW	
Receiver sensitivity	-110dBm(-140dBmW)					
Probing signal power adjustment range			20dBm			
Receiving path dynamic range			24dBm			
Battery life at maximum power in a pulse	3,0h	2,5h	3,0h	2,5h	2,5h	
(continuous) mode	(1,5h)	(1,5h)	(1,5h)	(1,5h)	(1,5h)	
Module dimensions	40x20x7cm	40x20x7cm	40x20x7cm	40x20x7cm	40x20x20cm	
Telescopic rod sizes	54x4x4 (86x4x4)cm					

