non-linear locators
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About the competitive advantages of non-linear locators LORNET

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Non-linear locator is the only equipment detecting electronic devices disconnected from the power source

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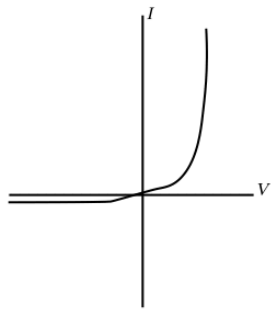
The main function of a non-linear locator is to detect semiconductors and their selection into artificial (electronic components) and natural (metal-oxide-metal)

How it works: the transmitter of a nonlinear locator irradiates the object to be analyzed with a probe signal, and receives the reflected signals of the 2nd and 3rd harmonics, the level of which is indicated and further analyzed by the operator

Artificial semiconductors have a stable quadratic volt-ampere characteristic and feature maximum response at the 2nd harmonic of the reflected probe signal



Natural semiconductors have an unstable symmetric current-voltage characteristic and feature maximum response at the 3rd harmonic of the reflected probe signal

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In practice, search objects are semiconductor elements with unknown detection characteristics

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Scope of application of nonlinear locators

1. Search for tacit information retrieval tools in interior elements and building structures
2. Screening measures to seize electronic devices in places where their use is prohibited (places of detention, closed meetings, vehicles)
3. Remote search and inspection of sites, objects and people to check for any presence of electronics and metal destructing agents

What to look for?

4. Artificial semiconductors: voice recorders, radio transmitters, wired microphones, mobile phones, SIM cards, GPS trackers, explosive electronics
5. Natural semiconductors: damaging elements: screws, nuts, bolts, etc.

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None

of the existing non-linear locators in the world cannot claim 100% efficiency

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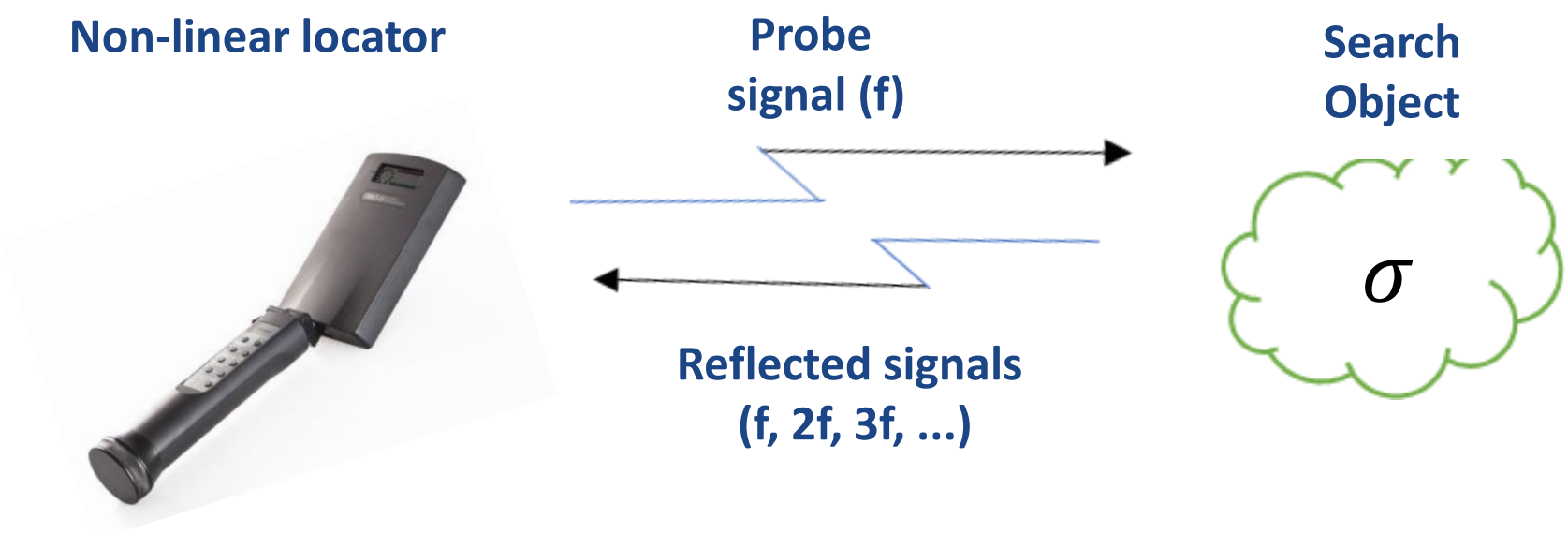
The reflective characteristic of the search object σ

(with the covering surface) in practice has a huge dispersion exceeding 1010, i.e. 10 orders (!), which leads to the need of using various types of nonlinear locators.



Among 4 well-known brands of non-linear locators such as ORION, NR, CAYMAN and LORNET, the latter stands out with the widest range of equipment featuring unique innovative characteristics.

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World's unique characteristics of non-linear locators of the LORNET line

1. **The option of spectrum analyzer provides visual recognition of natural and artificial semiconductors** (Lornet Star // 24c, Lornet Star // 08c)
2. **Narrow antenna pattern in the 3600 MHz range provides spatial selection when searching** (Lornet 36, Lornet 0836, Lornet Star // 36m)
3. **The presence of interchangeable antenna modules of three frequency ranges (800, 2400, 3600 MHz) covers the advantages of each range in one device** (Lornet Star // 08 // 24 // 36m, Lornet Star // 08 // 24c // 36m,Lornet Star // 08s // 24s // 36m)
4. **Minimum overall weight characteristics** (products Lornet 24, Lornet Star // 24, Lornet 0836)
5. **The removable telescopic rod easily turns the search non-linear locator into a search one and vice versa** (the entire Lornet Star product line)

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About misleading numbers

when choosing a nonlinear locator

One can not make choices based on characteristics that the consumer cannot verify

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	ORION 2.4 USA	Lornet Star/24c Russia
		
Sensitivity	- 140 dBm	- 110 dBm
Power	3,3 W = 35 dBm	10 W = 40 dBm

According to the declared parameters, the energy gain of ORION 2.4 before Lornet Star / 24s is as much as 25 dB

However, when working indoors, these products show very similar results in many tests on their detection ability

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Criteria for choosing non-linear locators

When choosing a non-linear locator, the final consumer should first of all rely on three main criteria:

1. The real detection range of their own tests, which should take into account the conditions in which the device will be used (main criterion)
2. Convenience of the operator (a combination of weight and size characteristics and ease of device's control)
3. State authorities' conclusions on energy flux density levels generated by a specific non-linear locator and their compliance with current environmental standards

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Non-linear locator Lornet Star / 24c

today is **the best choice** for checking office premises

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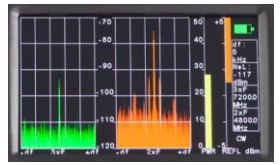
With the advent of the Lornet 24 in 2008, the 2400 MHz band became a classic for office work

NR2000

ORION 2.4

Lornet Star/24c

When operating indoors, these products show similar results in detection ability

Weight	2,2 kg	1,4 kg	1,0 kg 1,4 kg with rod
Harmonic spectrum analysis	no	no	yes 
Upgrading configuration of 3600 MHz module	no	no	yes Lornet Star/24c/36m