Bahia Europe

Security

RFD 23

NON LINEAR JUNCTION DETECTOR

APPLICATION

The **RFD-23** Hand Held Non-Linear Junction Detector (NLJD) is designed for the search, the detection and the localization of devices containing electronic components, such as:

- electronic fuzes or remote control of explosive devices,
- concealed surveillance devices
  (listening and recording devices, transceiver and receivers…)
- Video and Infrared detectors,

The RFD-23 detects electronic devices regardless of whether they are powered or not.

OPERATING PRINCIPLE

The detector consists of three modules easily assembled: the transmitter, two receivers (2d and 3d harmonics) and display, and the arm handle housing the battery.

The receivers are tuned to the double and triple frequency of the transmitter signal.

The transmitter searching signals cause non-linear (semi conductor) elements of an electronic device to generate signals which are the 2d and 3rd harmonics of the original signal. The signals of the harmonic are re emitted, registered by receivers and evidenced by visible and audible alarms.

A special identification mode allows the operator to distinguish between signals reflected from semiconductor radio electronic devices and signals from natural non linear reflectors. The ratio of the 2d and 3d harmonic signals is also useful for false alarms elimination.

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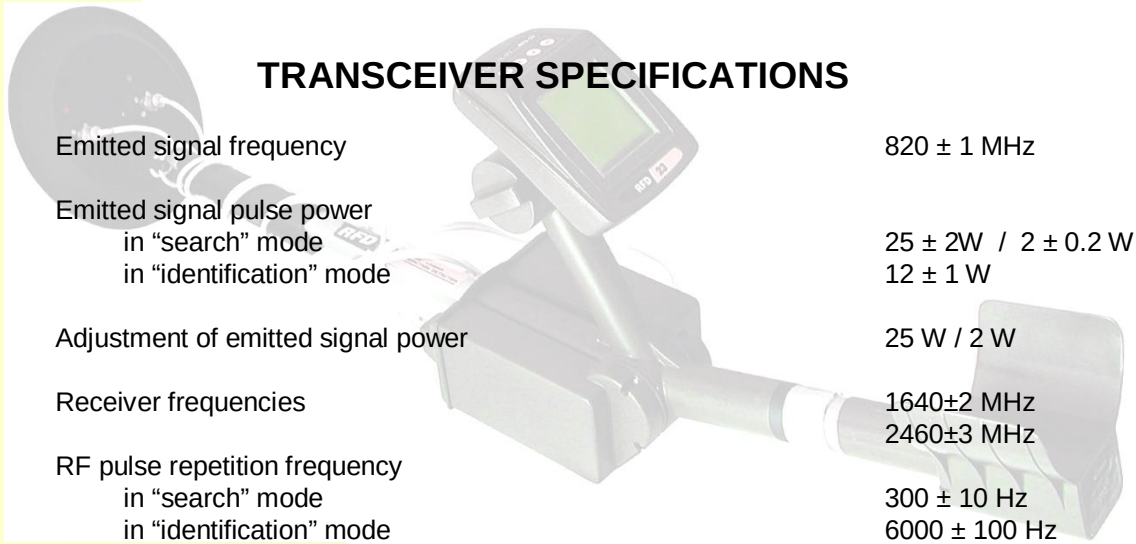
ADVANTAGES

High precision of localization,
Searching signal power amplifier,
Reliable search in hollow parts of building structures,
Simultaneous receiving at both 2d and 3d harmonics,
Special identification mode,
Search in hard to reach cavities.



TRANSCEIVER SPECIFICATIONS

Emitted signal frequency	820 ± 1 MHz
Emitted signal pulse power	
in “search” mode	25 ± 2W / 2 ± 0.2 W
in “identification” mode	12 ± 1 W
Adjustment of emitted signal power	25 W / 2 W
Receiver frequencies	1640±2 MHz 2460±3 MHz
RF pulse repetition frequency	
in “search” mode	300 ± 10 Hz
in “identification” mode	6000 ± 100 Hz
RF pulse duration	
in “search” mode	1.8 ± 0.2 µs
in “identification” mode	1.8 ± 0.2 µs
Receiver sensitivity, S/N = 10 db	-95 dbm
Receiver dynamic range	>30 db

Receiver sensitivity is adjusted manually in five steps of 10 ± 2 db each.

MAIN FEATURES

Power supply	rechargeable battery 7.2 V
Power consumption, no more than	5 VA
Time of continuous operation	4 hours
Alarm signals	visible (LCD) audible (earphones)
Detector weight	3 Kg
Weight of complete set in transportation case	7 Kg
Operating temperatures	0 to + 40 °C