

SuperBroom Plus TA ^{(EU type approved)*} Advanced Non-linear Junction Detector (with Dynamic Channel Allocation)

FEATURES

- Frequency hopping utilising Dynamic Channel allocation.
- Fully EU type approved
- Alarms only on electronics - search effort maximised
- Sophisticated Digital Signal Processing (DSP) techniques (patent applied for) for enhanced performance.
- Ergonomic Sweep head combined with extra-long extendable carbon-fibre handle.
- Circularly polarised Rx antennae allow efficient detection of harmonic returns independent of the orientation of the Sweep Antenna head.
- Convenient antenna head displays showing radiated power level and received signal strength.
- Removable, rechargeable Li-ion technology battery-packs give up to 20 hrs continuous operating time.



* Applicable in the following countries:

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|-------------|------------------|-------------------|
| • Austria | • Belgium | • Bulgaria |
| • Croatia | • Czech Republic | • Cyprus |
| • Denmark | • Estonia | • Spain |
| • Finland | • France | • Germany |
| • Hungary | • Iceland | • Italy |
| • Lithuania | • Latvia | • Luxembourg |
| • Norway | • Poland | • The Netherlands |
| • Portugal | • Romania | • Switzerland |
| • Sweden | • United Kingdom | |

SuperBroom Plus TA is a portable EU type approved advanced non-linear junction detector. Radiating a spectrally pure frequency hopping signal SuperBroom Plus TA detects the second and third harmonic return signals from non-linear junctions (NLJs) found in all semiconductors such as diodes and transistors.

Using our unique technology SuperBroom Plus TA compares the two harmonic return signals to provide information for the operator to discriminate between electronic and naturally occurring targets.

Designed for the security professional SuperBroom Plus TA is easy to use. Its user friendly operation enables rapid detection of active, dormant or non-operational electronic devices.

2ND & 3RD HARMONIC RETURNS

By comparing the relative strengths of the 2nd and 3rd harmonics SuperBroom Plus TA gives the operator a clearer indication of the type of reflected signal source.

AUTOMATIC DSP POWER CONTROL

As well as allowing manual control of the power output, in DSP mode SuperBroom Plus TA automatically adjusts power output to prevent saturation of target non-linear junctions. This allows more accurate analysis of the return signals and optimises unit performance.

DYNAMIC CHANNEL ALLOCATION

When SuperBroom is switched on a search algorithm selects 10 RF channels for optimum operation. In EU operation SuperBroom 'hops' between these channels ensuring that potential interfering signals are avoided.



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SPECIFICATIONS

TRANSMITTER SECTION

Frequency	869.4MHz - 869.65MHz
Channel Spacing	12.5KHz
Hop Rate	1 Min per channel
Power	EU Low - up to +13dBm EU High - up to +27dBm Non EU - up to +33dBm
Output Filter	High order combine bandpass filter; 2nd and 3rd harmonic rejection >125dB
Modulation	FM, 1kHz tone, 1kHz deviation (enabled for Non EU operation only).

RECEIVE SECTION

Filtering	High order coaxial bandpass filter.
Frequency	1738.825 - 1739.275 MHz and 2608.2375 - 2608.9125 MHz
IF	21.4MHz and 455KHz dual conversion, FM and AM demodulation.
Sensitivity	-130dBm for visible RSSI LCD bargraph indication. -130dBm for audible Geiger click indication.
Displays	Signal strength LCD bargraph (7-bit resolution) Selected function LEDs

SWEEP ANTENNA HEAD

Antenna	Linear polarised transmit antenna. Microstrip circularly polarised receive antennas. (Circularly polarised receive antennas respond to cross-polarised signals)
Head Display	16-segment LED bargraph for signal strength (4-bit resolution). LCD for power output and other status information.

OUTPUT

Audio	Through internal switched loudspeaker or headphones for: Signal strength given by Geiger type click or Receiver demodulated output.
Output	Maximum 1.8V p/p into 8ohms.

POWER REQUIREMENTS

Battery	Internal Li-Ion rechargeable battery provides between 3 and 20 hours of operation dependent on transmit power.
DC input	External AC/DC adaptor; 14V @ 2.7A, universal input.

ACCESSORIES

Standard	One Antenna Head, extendable Carbon-Fibre handle 470-1510mm, Mains adaptor/charger, Headphones, Test Target, Operators manual, Robust Carrying Case.
Optional	Stand-alone battery charger, additional lithium ion battery packs and ruggedised carrying harness.

DIMENSIONS

Sweep Antenna Head		
	W x D x H	210 x 155 x 60 mm
Handle		470-1510mm
Unit	W x D x H	345 x 245 x 70 mm
Carrying case	W x D x H	650 x 3500 x 235 mm

WEIGHT

Sweep antenna	1.1Kg
Unit	5.2Kg
Carrying Case	10.2Kg

APPROVALS

LVD (safety)	EN 60950:2000
Radio Type Approval	EN 300 220-1 (1997-11)
EMC	ETS 300 683 (June 1997)

ORDER CODES

SuperBroom Plus TA	2-197-869
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WARRANTY

SuperBroom Plus comes with a return-to-base warranty against defective materials and workmanship for a period of 2 years from delivery. With regular authorised maintenance and recalibration of the unit the basic warranty can be extended for a further period. (see local dealer for details).



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