



EDD-24T Handheld Non Linear Junction Detector (NLJD)

Detects all types of electronics whether active, passive or even switched off.

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



### **PRODUCT FEATURES**

- Detects all types of electronics whether active, passive or even switched off
- Easy to operate with an intuitive user friendly interface
- 2.4 GHz Transmit up to 4 Watts
- 2nd Harmonic (4.8 GHz) and 3rd Harmonic (7.2 GHz) Receivers
- As powerful and sensitive as much larger so called 'portable' units
- Detected material Indicator 'Silicon' or 'Metal'
- Will even detect the latest NANO SIM cards from up to 20cm
- Audible Tone and Demodulation Function through speaker or earphones
- Battery life up to 4.5 hours
- Weight just 700g
- Machined Aluminium Enclosure with Moulded Plastic Antenna Cover
- Supplied in a compact Military Standard carry Case

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ









The EDD-24T is a compact handheld Non Linear Junction Detector or 'NLJD' designed specifically for professional countermeasures use (TSCM). It will detect the presence of semiconductor circuits that are used in all modern electronic devices such as mobile phones, tracking devices, listening devices, covert cameras, digital voice recorders, SIM cards etc. Importantly, the EDD-24T will detect such devices whether they are switched on and in use, powered on but in standby mode, or even switched off without any power.





JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



Principle of operation:

Semiconductor Electronics are used in all modern electronics and are made using Silicon. When high frequency radio signals are transmitted directly over silicon they produces a strong second harmonic frequency of that radio signal. Other materials such as some bi-metals or oxidised metals can respond with a third harmonic signal.



The EDD-24T transmits a focused directional signal on 2.4 GHz (ISM Band Type B). It receives on 4.8GHz (Second Harmonic) and 7.2GHz (Third Harmonic).

The highly sensitivity receiver will respond to any signals produced on the 2nd Harmonic by even the smallest piece of Silicon such as that used in SIM Cards, Mobile Phones, Bugging Devices, Voice Recorders, Covert Video cameras etc. Importantly those devices do not have to be in use, in standby or even have any power connected to them to be detected.

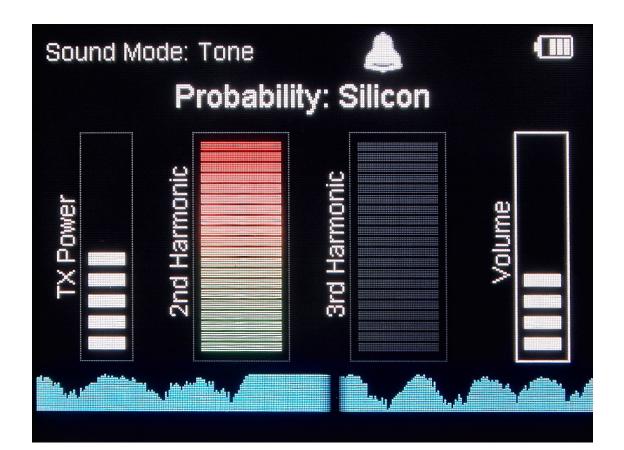
The 3rd Harmonic receiver acts as a valuable confirmation for signals that may be ambiguous or are not a threat such as those in oxidised metals, bi-metals etc.

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



## PROBABILITY INDICATOR

To allow even an inexperienced user to make a quick assessment of a detected signal the EDD-24T uses an intelligent algorithm to analyse the detected signals from both the 2nd and 3rd Harmonic Receivers and evaluate the probability of material being detected as 'Silicon' or 'Metal'.



JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



# AUDIO CONFIRMATION

The EDD-24T Can provide audio confirmation of detected signals in two ways, through the internal loudspeaker or earphones.

TONE Mode can be used to provide an audible tone of a detected signal on the 2nd Harmonic only. This enables the user to search without looking at the display screen. The TONE changes in pitch according to the strength of the detected signal.

DEMOD Mode can be used to listen to an actual demodulated signal of the 2nd Harmonic Receiver. When no signals are detected a random audible 'Click' sound will be heard. In some cases when Silicon is detected the click level will reduce or become completely silent.

The EDD-24T is genuinely portable for handheld use and weighs just 700g. It is encased in a machined aluminium enclosure for ultimate durability with a tough plastic antenna cover. The internal Lithium Polymer battery pack gives up to 4.5 hours of use from one charge. The whole package is supplied in a compact military standard carry case for ultimate protection and portability. Total weight just 2.0 kg.

The EDD-24T Handheld Non-Linear Junction Detector is designed, manufactured and tested in England to highest technical standards.





CHARGE

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



# Supplied in Package:

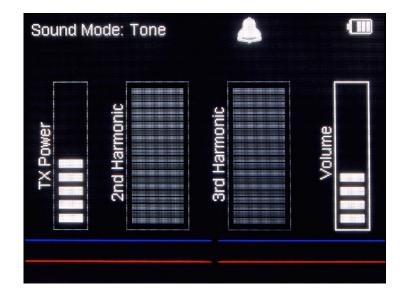
- EDD-24T Handheld Electronic Device Detector
- Charger 110V to 240V AC input (Auto Switching) with International Adaptors Output 5V DC
- Earphones
- High Protection Military Standard Carry Case



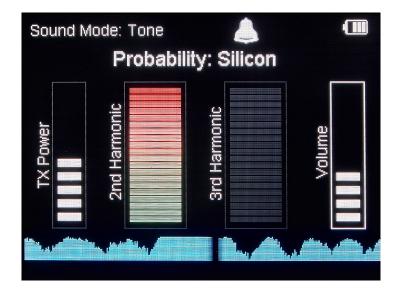
JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



#### **SCREEN IMAGES**



Main Screen with no detected signals



Main Screen with detected signal on 2nd Harmonic

**Probability Silicon** 

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



Sound M	ode: Tone <b>Probak</b>	الله bility: Metal	
TX Power	2nd Harmonic	3rd Harmonic	Volume

Main Screen with detected signal on 3rd Harmonic

**Probability Metal** 



Settings Screen

JJN Electronics Ltd PO Box 11043 Bishops Stortford Herts CM23 9HJ



### TECHNICAL SPECIFICATION

Transmit Frequency	2.400 GHZ to 2.425 GHz (ISM Band Type B)	
Transmit Power Level	up to +30dBm (1 Watt)	
Radiated Power Antenna	up to +36dBm (4 Watts) within allowable limits of ISM band (Type B)	
Display	3.5 inch Colour TFT Daylight Readable	
Receiver Sensitivity	better than -120dBm on 2nd and 3rd harmonics	
Receiver Bandwidth	Approx 10KHz	
Battery	3.7V Lithium Polymer Internal rechargeable	
Battery Life	4.5 Hours (Minimum TX Power) 2.0 Hours (Maximum TX Power)	
DC Charge	Micro USB Socket 5V 1A	
Charger	Input 110/220V Auto-switching - International Adaptors Output 5V DC 2A	
Audio	Internal Loudspeaker or via 3.5mm Earphone Socket	
Operating Temperature	0 to 40 degrees C	
Enclosure	Machined Aluminium Enclosure with Plastic Antenna Cover	
Weight	Main Unit 700g with Carry Case 2.0kg	
Dimensions Main Unit	Height 225mm x Width 118mm x Depth 51mm	
Carry Case	Military Standard 321mm x 229mm x 111mm	

Copyright 2019 JJN Electronics Ltd

JJN Electronics Ltd mail@jjn-electronics.co.uk PO Box 11043 Bishops Stortford Tel: +44 (0) 1279 655 550 Herts CM23 9HJ www.jjndigital.com