

## Non Linear Junction Detector

MODEL PHJD24  
4W Peak Power  
(Adjustable 18 - 38 dBm)



## General Description

The PHJD24 has been designed for detection of nonlinear junctions.

Nonlinear junctions include a wide variety of components such as diodes, transistors, IC's, etc. The PHJD24 can detect electronic circuits such as hidden transmitters, and tape recorders even though DC source is NOT applied.

Corrosive junctions, hence discards false alarms. Both 2nd & 3rd harmonics The PHJD24 is a state-of-art the Non Linear Junction Detector based on the latest technology and includes DDS and DSP components. The system provides an evaluation of the 2nd and 3rd harmonic.

When the system receives a strong 2nd harmonic, it indicates the presence of electronic components while a strong 3rd harmonic reception indicates false is displayed at the same time.

## Solution components

### 1. Transmitter:

- a. Frequency: 840 – 915 MHz
- b. Output power equal and no more than 4W (continuous)
- c. FM modulation continuous (AM if customer requires)

### 2. Receiver:

- a. 1,680 – 1,830 MHz and 2,520 – 2,745 MHz respectively
- b. Sensitivity -133dBm

### 3. Antennas:

- a. Control function with volume and power selection
- b. All cables and connectors are secured

### 4. Output:

- a. Audio: with and without headphone
- b. Display: visual display distinguishing 2<sup>nd</sup> and 3<sup>rd</sup> harmonics
- c. False alarm rate: lower than 3%

5. Power:

- a. Battery: rechargeable with minimum 3 hours operation on single operation full charge. The battery has protection against reversed polarity.
- b. Battery charger: 180 – 240V

6. Detects and identifies semiconductor and corrosive bimetal junctions

## Technical Advantages

- Fully digital system
- Automatic or manual channel select
- High power transmitter (+38 dBm)
- Excellent receiver sensitivity
- CW or Pulse mode operation

## PHJD24 Advancement

- LED Display with high brightness
- High gain circular antenna
- Minimum setup time
- Robust & lightweight design
- Easy to use
- Rechargeable batteries Li-Polymer

## Technical Specifications

Transmitter	
Output Power-	Adjustable 18 - 38 dBm (Max. 8W)
Frequency Range	840-915 MHz
Signal Source	DDS
Antenna	50 Ohm Directional Antenna
Antenna Gain	4 dBi
Receivers	
Sensitivity	-133 dBm
Frequency Ranges	1,680 – 1,830 MHz 2,520 – 2,745 MHz
Controls	
Channel Select	1 to 825
Output Power	18 – 38 dBm with 1 dB steps
ON/OFF	Touch panel
Mode of Operation	
Channel Select	Manual or Automatic Channel Select
Output Power	Manual or Automatic Output Power
Display	Double row LED display
Mode of Operation	
Operating Temp.	-5°C - +60°C
Humidity	5% - 90%
Physical	
Sensing head	21 cm in diameter
Weight	2.5 Kg

\*Specifications are subject to change without prior notice  
Ver. 1.00.04.17