

# PCB Tester

## 9332

PCB

### Features

- 0.1% basic accuracy
- 64 test channels
- Test 32 sets of inductive impedance (Ls/Rs/DCR/Q)
- Can be used with pneumatic composite fixtures to perform multi-board (panel) tests
- Supports multi-board test modes and LCR value measurement mode



### Application

- NFC antenna board
- Wireless charging coil board
- Layout the coil on PCB/FPC

### Accessories / Fixtures

- |               |                    |
|---------------|--------------------|
| Standard      | Option             |
| - Power cord  | - PC Link software |
| - Kelvin Clip | - Handler Box      |
| - F9332       | - RS-232 Cable     |

### Specification

Model Name		9332	
Test Frequency	10Hz-200kHz		
Channel	64		
Frequency trimming resolution	5 Digits		
Frequency output accuracy	±0.01%		
Output Impedance	100Ω		
AC Drive Level	10mV to 2Vrms (1m Vrms resolution)		
Parameters Measurement			
Z 、θ、R、L、Q、DCR、C			
Ranges and Accuracy			
Parameters	Ranges	Basic Accuracy (AC 1kHz)	Test Speed
L	0.1nH ~ 9999.99H	0.1%	25ms
C	0.00001pF ~ 999.99mF	0.1%	25ms
Q	0.00001 ~ 99999	0.0005	25ms
Z,R	0.00001Ω ~ 99.9999MΩ	0.1%	25ms
DCR	0.01mΩ ~ 99.999MΩ	0.1%	25ms

### General

ESR	Series/Parallel
Measurement mode	Meter Mode/List Mode
Calibration	Open Circuit/ Short Circuit
Built-in storage	testing files 128 sets
Operation	Auto、Manual、Remote Trigger
Interface	RS-232、Handler、LAN、USB Host、EXT. I/O
Power Supply	Voltage 98Vac-132Vac or 195Vac-264Vac Frequency 47-63Hz
Power Consumption	200VA
Display	800*480 Color Screen, 7" TFT
Environment	Temperature : 10°C-40°C、Humidity : 20-90%RH
Dimension (W*H*D)	344x145x343 mm
Weight	8.4Kg

## Key Features

### A Why Wireless Charging efficiency became worse?



Wireless Charging Coil

#### Capacitance become bigger

- Etching process not enough, distance between wires will become large.

#### Resistance become bigger

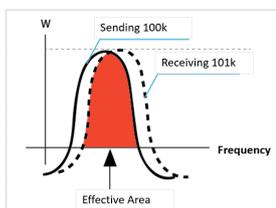
- Etching process not well, wires will become slender.

#### Quality of coil is also a key factor effect resonance frequency

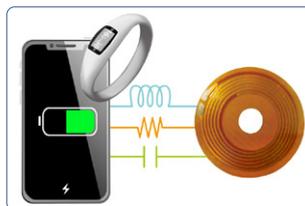
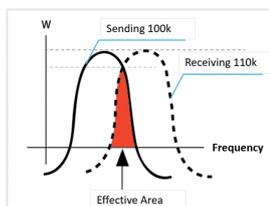
- Diameter of coil wire
- Diameter and number of turns of coil
- Material of magnetic component (increase induction intensity)



### B The closer of working frequency and resonance point, the better transmission efficiency.



Poor processes will result in the resistance value of the copper foil circuit to increase as well as the parasitic capacitance; these will all cause high levels of losses to the inductance. Inductance offset causes a direct impact to the resonance frequency that is the key for wireless charging; once the resonance frequency curve has been offset, it may result in the risk of NG for products delivered to the module factory to test their functionalities.



### C 1-to-32 LCR super-capacity electrical measurement artifact 9332.



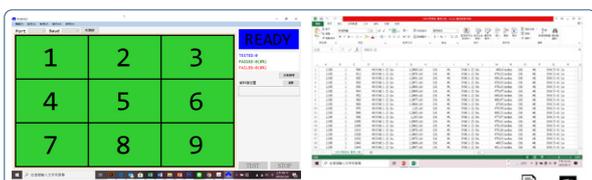
PC control

Using LCR Meter to check Inductor Impedance characteristics of FPC Coil.



Can be used with pneumatic composite fixtures

Provides coil boards with the function to test multiple sets of measurements at once (Ls/ACR/DCR/Q)



Data saving teh test report (SSV→EXCEL)

- Multi-Step Setting (List Mode)
- PASS / FAIL ( Panel multi-board electrical test)
- Operators have intuitive and simple layout screen