



# QNImits

## Key Features :

- Unique Trouble-shooting Tool
- Nodal Impedance Test
- Save & Compare Facility
- Data Transfer to PC through USB Port
- In-built Color LCD TFT Screen
- Truly Portable Unit

## Ideal for :

- Electronics Repair Shops
- Field Engineers & Technicians
- In-house or Third Party Service Centres
- Recovery of Failed Boards in Manufacturing Process





Today's PCBs are so complex in nature and with more of proprietary devices. In most cases the schematics and internal functional details are unavailable for third party maintenance personnel. Thus diagnosing faults in such PCBs are difficult task using conventional test instruments such as multimeter or oscilloscope that are normally found in repair shops.

Advancements in Semi-conductor technology and reliability has resulted in very few or nil failures in silicon wafers and if even they fail, it is only attributed to external forces which damages the I/O pins of such devices thus causing a board fault.

QNIimits is an innovative hand held test instrument which uses the industry's proven V-I Trace technique of learn and compare of Nodal impedances. Using this technique the technician only requires a known good board for comparison with a faulty one without having the need of schematics and functional details of such PCBs. The known good board's VI traces can be learnt and stored for future reference as well.

QNIimits uses probe – reference (usually Ground) to either on-line (side by side) comparison of each node or alternatively uses external MUX switch and clips / adapters for multi-pin learn and compare.

QNIimits, displays the test results as VI trace which shows the current against applied voltage in most commonly used graphical view. These trace formats help the user to easily understand the nodal behavior and interpret the results for quick diagnostics.

Using V-I curve traces one can detect a change in devices' pin characteristics due to aging or damage caused by external forces such as lightning, static discharge or short circuit / over current damages.

QSM VI mode uses all pins of the device as reference and hence able to detect leakages between pins as well.

Alongwith QNIimits the user can order the optional test clips/ test interface accessories as required and learn the analog VI traces of all the pins (without having to know the circuit diagram) of an IC on a Known Good Board and then compare with a bad board.. This test technique works most of the time, because most of the failing devices shows a different response to VI trace unless there is no terminal failure.

The USB interface which comes as optional with QNIimits helps in connecting to PC/AT or Lap top so that signature information learnt from Known Good Board can be saved for further verification and analysis.

The Qmax QNIimits will be an invaluable tool in any electronic service Center.

## Specifications

Fully user programmable VI trace drive patterns (Optional)  
(Sine, Square, Saw-tooth and User defined patterns)

Frequency from 20 Hz to 10 KHz

Source Impedance 100  $\Omega$ , 1K $\Omega$ , 10K $\Omega$  and 100K $\Omega$ .

Voltage selection : 1.5V, 3V, 7V and 13V

USB 2.0 interface to transfer data to host system (Optional)

Optional external interface to test semi-con devices

Hand-held with 3.2" TFT Screen (320 X 240 pixels)

User-friendly keypad

Power : Battery operated or through AC adapter



Qmax reserves the right to change the specifications without prior notice.



*- where standards are set; not matched.*

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