

# Ncompass-Voyager™

## Test Functions

**Intermittence** testing detects and isolates intermittent circuits to less than 50 nanoseconds on every test point simultaneously and continuously. A low-level DC voltage stimulus is injected into each connected and programmed test point, whilst simultaneously monitoring all test points for any changes or anomalies in current flow. No scanning or digital averaging or sampling is used. If a change is detected, the decoding elements of the Ncompass-Voyager™ pinpoint the failing connection or circuit and immediately display the detection result on the screen.

**Continuity** testing uses an internal National Instruments Digital Multi-Meter (DMM) to take ohmic continuity readings and, if programmed, compare with a known 'Gold' reference.

**Auto Map** is a mapping utility to automatically find the nodal configuration in a Unit Under Test (UUT) without the need for detailed analysis of either the UUT or its manufacturer's connectivity schematic data. Auto Map uses the dynamic switching capabilities of the Ncompass-Voyager™ and its internal DMM to automatically test every point to each and every other connected point, while logging all the connectivity information.

**Shorts testing** determines if any of the test points have short circuit paths to any other known nodal clusters outwith their own designated node.

**Log Scope** allows the User to graphically track small resistance changes measured across any two test points, or group of test points, in the UUT to aid in diagnosing which points in a node may be causing a lack of continuity, a shorting condition, or circuit intermittency

**Analyze** testing is a neural version of continuity testing that can be used to verify connection integrity quickly, as well as testing each circuit path for impedance. The results data is compared to a previously stored 'Gold' reference and any differences in impedance displayed as possible circuit problems.

**Distance to Fault** is an optional facility that uses Spread-Spectrum TDR to locate distance-to-fault within 1%.



Revealing Solutions



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# Ncompass-Voyager™

## Technical Specification

### Integral Single Board Computer

- Intel® Core Duo Processor 2.2 GHz performance
- 4 GB DDR3 Memory
- High performance video (Gen 5.0)
- High reliability SSD 60Gb
- Low power (<30 Watts)
- MIL-STD-202G Vibration/High Shock resistant
- Windows 7 OS

### Test Software

- Test Functions listed on previous page accessed through NODES™ GUI
- NODES™ GUI enables management of Unit Under Test details; Test Points data and graphics; quick access to testing and to Test Results Management, with predefined report outputs and the ability to export results data in Excel and PDF formats
- Updates included, downloadable from website

### Integral Screen

- 17" Monitor using latest touch-screen technology – supporting 1280 x 1024 resolution

### External Connections (IP55)

- 128, 256 or 512 Test Point connections via 50-Pin D-Sub connectors
- 2 x power input connectors
- 1 x USB 2.0
- 1 x RG45 Gigabit Ethernet
- 1 x Instrument Connection
- 1 x external digital I/O controller interface
- 1 x HDMI connector to support external monitor – 1600 x 1200 and 1920 x 1080 (1080p)

### VAC Auto Switching Mains power supply

- AC Input Voltage - high tolerance system - 90/132 or 175/264 @ 47–63 Hz auto-switching
- DC Input Voltage - 12 –30 volts

### Enclosure

- Lightweight Strong HPX® Resin
- Four Press & Pull Latches
- Double-layered, Soft-grip Handle
- Two Padlockable Hasps
- Vortex® Valve
- Flush Powerful Hinges

### Size and Weight

- 55.9cm x 43.2cm x 20.3cm
- < 18Kg

### Temperature

- Operating: 0°C to 45°C
- Storage: -20°C to 85°C

### One-year Warranty

- Excludes misuse and operation outside the parameters specified in the User Manual



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