RPM Systems Corporation
Redmond, Washington USA

USB ■ **USB**
UNIVERSAL SERIAL BUS

USB Test Hosts
for
Manufacturing
Product Development
Quality Assurance

USB 2.0 High Speed Support

RPM Systems Corporation's Root 2 USB test hosts are design specifically for manufacturing test, development and QA testing of USB peripherals and hubs.

Root 2 supports **USB 1.1 and USB 2.0 Low Speed, Full Speed and High Speed** devices and **EHCI** USB traffic patterns. Root 2 provides both EIA-232 and Ethernet 10/100 control ports.

Root2 places all USB operations directly under the control of the test engineer, including:

- **Vbus Voltage Level Control**
- **Vbus power on/off Control**
- **Vbus Current Measurement**
- **Suspend/Resume Control**
- **USB Reset Control**

Root 2 provides a variety of special features including:

- *RootScript* **Scripting Capability**
- *Automatic Mode* **operation**
- **Stand-alone Operation**
- **Field Replaceable USB connectors**
- **Rugged Anodized Aluminum Enclosures**
- **Two external trigger inputs**
- **8-bit general purpose triggered output port**

Root Testers in Manufacturing: Fast. Reliable. Repeatable.

Root testers are fast. A basic USB functional test takes less than 1/2 second.

Root testers are reliable, built to survive in a manufacturing environment, accommodating tens of thousands of test cycles without operator intervention. In manufacturing test, device insertions can measure in the millions of cycles. Root testers provide field replaceable Series A connectors which can be hot-swapped in seconds.

Root tester performance is repeatable, ensuring that each device is subjected to the same precise set of test conditions.

Root Testers in Development: Take Control of the USB

Root testers provide the control to allow you to verify each discrete function of your product design, precluding weeks of trial-and-error debugging. Then you can approach your Windows or Mac O/S integration with a proven functional device.

Root Testers in Design Verification: Cover the Corners

Test your USB design on one, ten or a hundred PC hosts, and you haven't begun to explore the worst-case conditions your design could be expected to face in the real world. Root testers provide the unique capability to generate test conditions which seldom occur in normal operation. **Root testers verify that your design functions properly** across the full range of real-world USB conditions.

USB Test Hosts

Specifications

Root 2		

USB Standards Supported

- ■ USB 1.1
- ■ USB 2.0
- ■ Low Speed
- ■ Full Speed
- ■ High Speed

- ■ UHCI
- ■ OHCI
- ■ EHCI

Vbus Power Supply

   Range — 4.25 - 5.50V
   Current Limiting — 750mA Max.

Vbus Current Measurement

   Measurement Range — 0 - 750mA
   Measurement Resolution — 2.96uA
   Measurement Accuracy — 1% +/- 50uA

Control Port

- ■ EIA-232
- ■ Ethernet 10/100

Advanced Features

- ■ Automatic Mode
- ■ On-demand Suspend/Resume
- ■ Field Replaceable USB Connectors
- ■ On-demand USB Reset
- ■ RootScript Scripting
- ■ External Trigger bus

Support Software

- ■ TapRoot Graphical User Interface
- ■ Function libraries for custom test applications

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