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Premininary Data Sheet

Packet-Master USB-PET Protocol and Electrical Tester

The **Packet-Master USB-PET** is a Protocol and Electrical Tester capable of performing the suite of tests defined in the '*Battery Charging, USB On-The-Go and Embedded Host Automated Compliance Plan'*. It comes complete with our Windows application **GraphicUSB** for generating the test reports, and also analyser-style captures.



OTG Compliance Testing

The USB-PET provides automated compliance testing of both the data protocol and the electrical and timing requirements of the 'On-The-Go and Embedded Host Supplement to the USB Revision 2.0 Specification'.

All aspects of On-The-Go and Embedded Hosts are tested, including VBUS voltage and current performance, and SRP, HNP and ADP protocols.

Battery Charging Compliance Testing

Additionally the USB-PET can carry out the compliance testing required by the USB Charging Port Compliance Plan, including tests on Charging Ports, Portable Devices, and Accessory Charger Adapters.

Analyser Functionality

As well as compliance testing, the Packet-Master USB-PET has the valuable capability of being able to capture an analysis of the activity on the bus during the compliance test, in the same format as produced by our range of analysers. This allows rapid investigation of protocol-based test failures.



Control of Testing

Usually tests are carried out as a suite for a particular type of Unit-Under-Test (UUT). However if is simple to select individual tests from the suite, in order to investigate the cause of a failure.

Additionally, because the tester is script-driven, users can write their own test scripts as a part of a more in-depth investigation, for example changing parameters from the standard tests, in order to determine behaviour of a UUT.

High Speed Electrical Test Modes

Single click operations allow the initiation of any of the High Speed Electrical Test modes defined in the supplement and the core USB specification.

Calibration Check

The basic calibration of the USB-PET can be checked using a simple function.

OPT2 - USB OTG/EH/BC Tester - VO.91 Test Selection | Test Results | Unit Under Test Options OTG-A Do Analyser Capture IA_VBUS_RATED: 100 Embedded Host Supports Sessions TPWRUP_RDY 30 SRP Downstream 🔽 SBP Unstream sec TA_BFAIL_SSEND 10 HNP Downstream 🔽 HNP Upstream [bMaxPower 100 mA ☐ Debug ADP Downstream 🔽 ADP Upstream Test Selection Current Directory: C:\Documents and Settings\Administrator\Application Data\GraphicUSB\OPT Scripts\ Available Tests Description AVailable Lests CT_B_HNP.mpro CT_B_ADP.mpro CT_B_LKG.mpro CT_B_DevNoRes.mpro CT_B_UnsupDev.mpro CT_B_NoResHnp.mpro HsEtm_0101.mpro HsEtm_0103.mpro HsEtm_0104.mpro HsEtm_0104.mpro B-HILLT HNP B-UUT HNP B-UUT Leakage B-UUT Device No Response B-UUT Device No Response B-UUT Unsupported Device B-UUT Dev No Resp for HNP En Test_SED_NAK (Host) Test_(Host) Test_Packet (Host) Remove All Selected Tests Description CT_A_PUT.mpro CT_A_VBUS.mpro CT_A_CAP.mpro CT_A_SRP.mpro CT_A_HNP.mpro CT_A_ADP.mpro CT_A_LKG.mpro A-UUT Power-Up Tests A-UUT Vous Voltage and Current Measurement A-UUT Bypass Capacitance A-UUT SRP A-UUT HNP A_DevNoRes.mpro A-UUT Device No Response High-speed Electrical Test Modes (Host) High-speed Electrical Test Modes (Dev) - Calibration SEO_NAK J SEO_NAK Check Cal Suspend Dev_Desc Dev_Desc_Data Test Packet Run Cancel

Architecture

The Packet-Master USB-PET is connected to a host PC using a High-Speed USB connection, and controlled using the GraphicUSB application software.

The front panel carries a micro-AB receptacle and a D-type connector for connection of a Unit-Under-Test, using the special cable provided.

The rear-panel allows the connection of a meter or an oscilloscope for monitoring, for example, VBUS voltage.

Physical Specifications

Weight: 500 g

Dimensions: 190 x 140 x 52 mm

Temperature: 0°C - 40°C

Humidity: 20% - 80% non condensing

For further information contact:

MQP Electronics, Park Road Centre, Malmesbury, Wilts, SN16 0BX, UK

Tel: +44 1666 825 666 Fax: +44 1666 825 141 email: sales@mqp.com

web site: http://www.mqp.com