

2014 USB3.1, *SUPERSPEED+*, Solutions In Amphenol-Taiwan



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20140210

Amphenol TCS

Your global connection for innovative technologies



AMTA – USB *SUPER SPEED* + Solutions

USB 3.1 Product Overview

Delivers 10 Gbps USB data rate

* 2x SuperSpeed USB 5Gbps data rate

Improved efficient data transfer and I/O power efficiency

Works and Backward compatible with existing USB 3.0 and USB2.0

Fast Sync-N-Go

Structures & Materials change can meet 10Gbps request.

Below models pass SI testing.

•DUT Samples:

Plug:

STD-A

STD-A SMT Type (Fixture Rev.C)

Receptacle:

STD-A R/A (Fixture Rev.C)

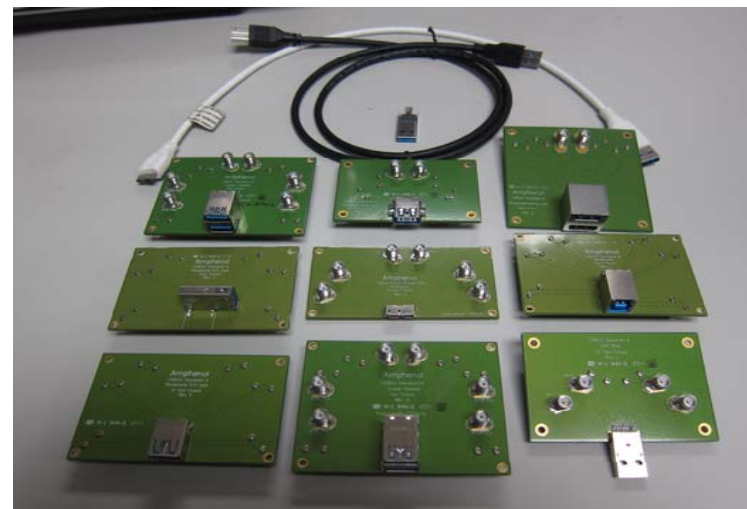
STD-A V/T -(R/A Fixture Rev.C)

STD-A Stacked (Fixture Rev.A)

STD-A Up Right (Fixture Rev.C)

STD-B (Fixture Rev.C)

Micro-B High Rise (Fixture Rev.B)



Amphenol-Taiwan higher-rate SuperSpeed Action:

➤ Terminal design and Housing structure improvement and optimization.

➤ Changing housing material and plating treatment to meet the factors of super high speed plastics requirements.

➤ **USB3.1 parts in Amphenol Taiwan can pass 10 Gbps and respect to USB 3.1 Industrial Standard.**

USB 3.1 – Markets Application / Products Outline

NAS



Telepresence Device

Mobile storage



Tablet PC

Automotive /GPS &AV



Health care

Smart TV



Game Console

Sever Storage



Mobile Phone



POS System



Portable media player



USB Products

Universal Serial Bus was developed to integrate a variety of existing PC I/O ports into a single interface with hot-plugging, automatic configuration capabilities and increased bandwidth to enhance serial I/O throughput for a wide range of peripherals.



DSC



Set Top Boxes



Amphenol Provides the solutions including:

The standard 'A' and reverse Series of receptacles are available in right angle, Upright, Sink, single and stacked dual-port through hole versions. The range of standard Series 'B' connectors, includes both vertical and right angle and cable plug version receptacles

The range of micro USB 'B' connectors includes right angle SMT, shell through hole option, and High-rise(stand off) for customers' variable design.



Industrial PC



AMTA- USB 3.1 Product Overview

SUPER SPEED + A Receptacle Typical Types SI Verification

Features & Benefits *Halogen Free*

- USB3.0 A type Compatible with USB3.0 & 2.0, and both
- Existing 5 Gbps USB3.0 and new 10 Gbps USB3.1 specification compliance.
- 5 metal friction lock grounding fingers and Polarization plastic
- Design ensure plug retention.
- Rugged Gold-plated leaf contact withstand up to 5000 cycles.
- High temperature plastic for SMT process and Halogen Free solution.
- Full metal shielding for EMI / RFI / ESD protection.

RoHS Compliance

Standard A



GSB411131HR

A Up Right



GSB4116311HR

A RVS Sink



GSB411B34EU

A Vertical



GSB412137CHR

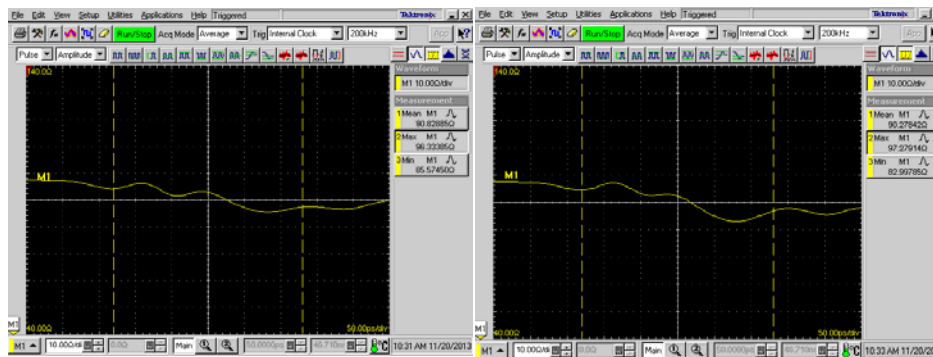
STACK A



GSB411231HR

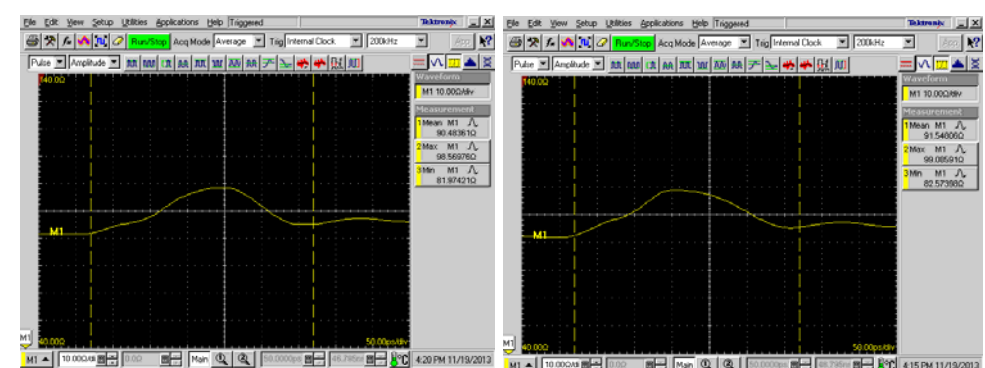
Receptacle A SS TX - Passed

SS RX - Passed



Receptacle A Stack SS TX - Passed

SS RX - Passed



AMTA- USB 3.1 Product Overview

USB SUPERSPEED PLUS A plug Typical Types SI Verification

Features & Benefits Halogen Free

- Fully compliant with USB2.0 & 3.0 specification
- Rugged Gold-plated leaf contact withstand up to 5000 cycles .
- process and Halogen Free solution.
- High temperature plastic for SMT process and Halogen Free solution.
- Full metal shielding for EMI / RFI / ESD protection.
- Application for Board to Board and wire to Board use

RoHS Compliance

Plug A SMT



GSB416445CHR

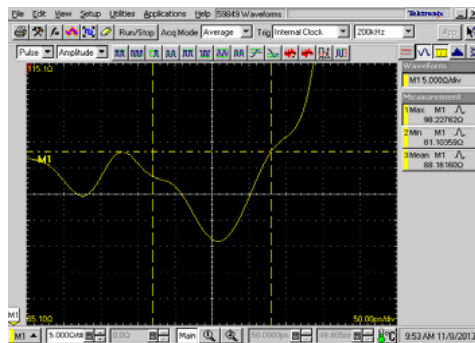
Plug A Cable



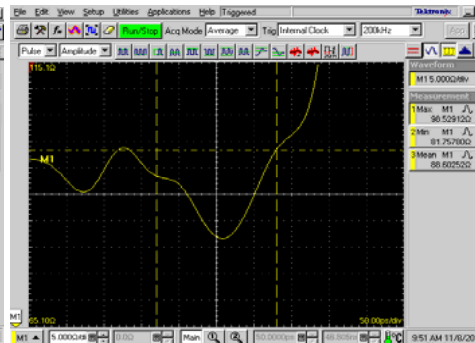
GSB417131HR

A Plug

SS TX - Passed

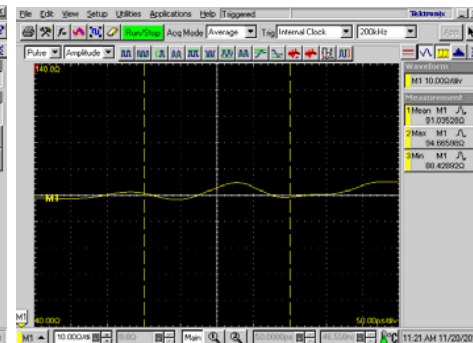


SS RX - Passed

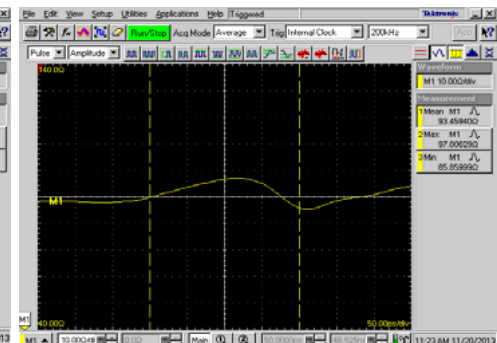


A Plug SMT

SS TX - Passed



SS RX - Passed



AMTA- USB 3.1 Product Overview

SUPER SPEED + B Receptacle Typical Types SI Verification

Features & Benefits *Halogen Free*

- USB3.0, B type Compatible with USB3.0 & 2.0, and both
- Existing 5 Gbps USB3.0 and new 10 Gbps USB3.1 specification compliance.
- 5 metal friction lock grounding fingers and Polarization plastic
- Design ensure plug retention.
- Rugged Gold-plated leaf contact withstand up to 5000 cycles.
- High temperature plastic for SMT process and Halogen Free solution.
- Full metal shielding for EMI / RFI / ESD protection.

RoHS Compliance

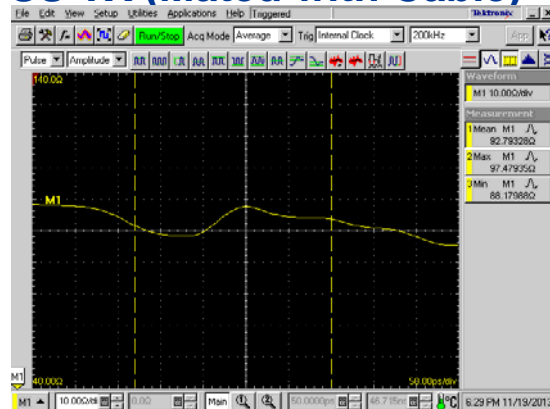
Standard B



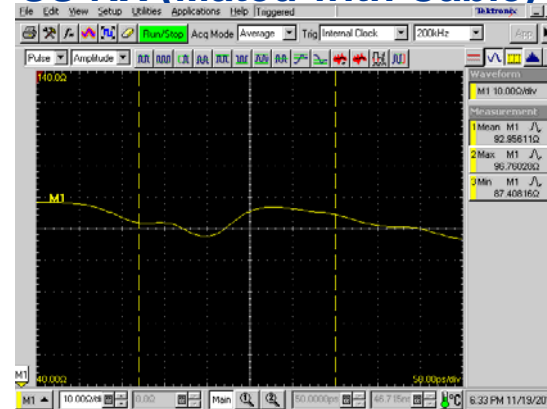
GSB4211311WEU

Receptacle B

SS TX (Mated with Cable) - Passed



SS RX (Mated with Cable) - Passed



AMTA- USB 3.1 Product Overview

SUPERSPEED + microB Receptacle Typical Types SI Verification

Features & Benefits **Halogen Free**

- USB3.1 Micro B type- Up to 10 Gbps data rate with USB3.1 standard compliance. Compatible with USB3.0 & 2.0.
- Stable signal transmission.
- Materials use for lead-free reflow process, Halogen Free , and RoHS.
- 6 Soldered Pads at shell ensure No Damage when: Peel Strength 150N Min applied. Wrenching Strength 25N Max applied .
- Greater real estate space savings.
- Reliable Co-planarity within a 0.08mm.
- Full metal shielding for EMI / RFI / ESD protection.
- Rugged Gold-plated leaf contact withstand up to 10,000 cycles.

RoHS Compliance

Micro B High Rise



GSB443T33HR

Plug A SMT

Micro B type Shell SMT / DIP



GSB443133HR

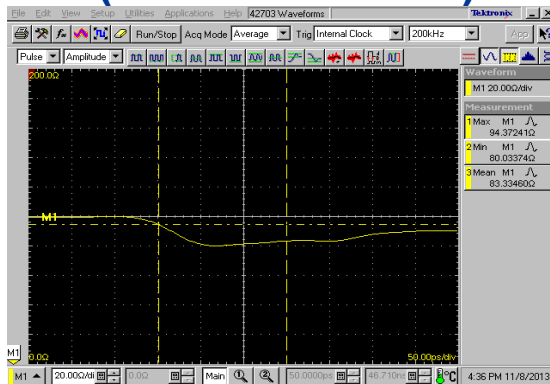
Plug A Cable



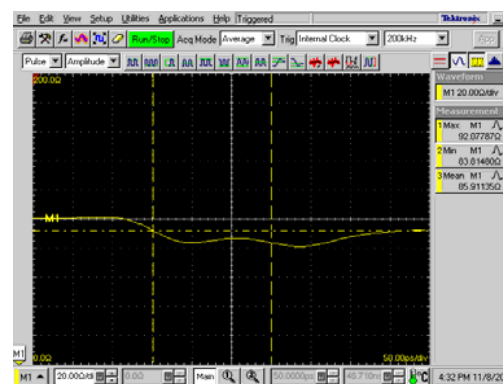
GSB443K33XHR

Plug B Cable

Receptacle MicroB SS TX (Mated with Cable) – Passed



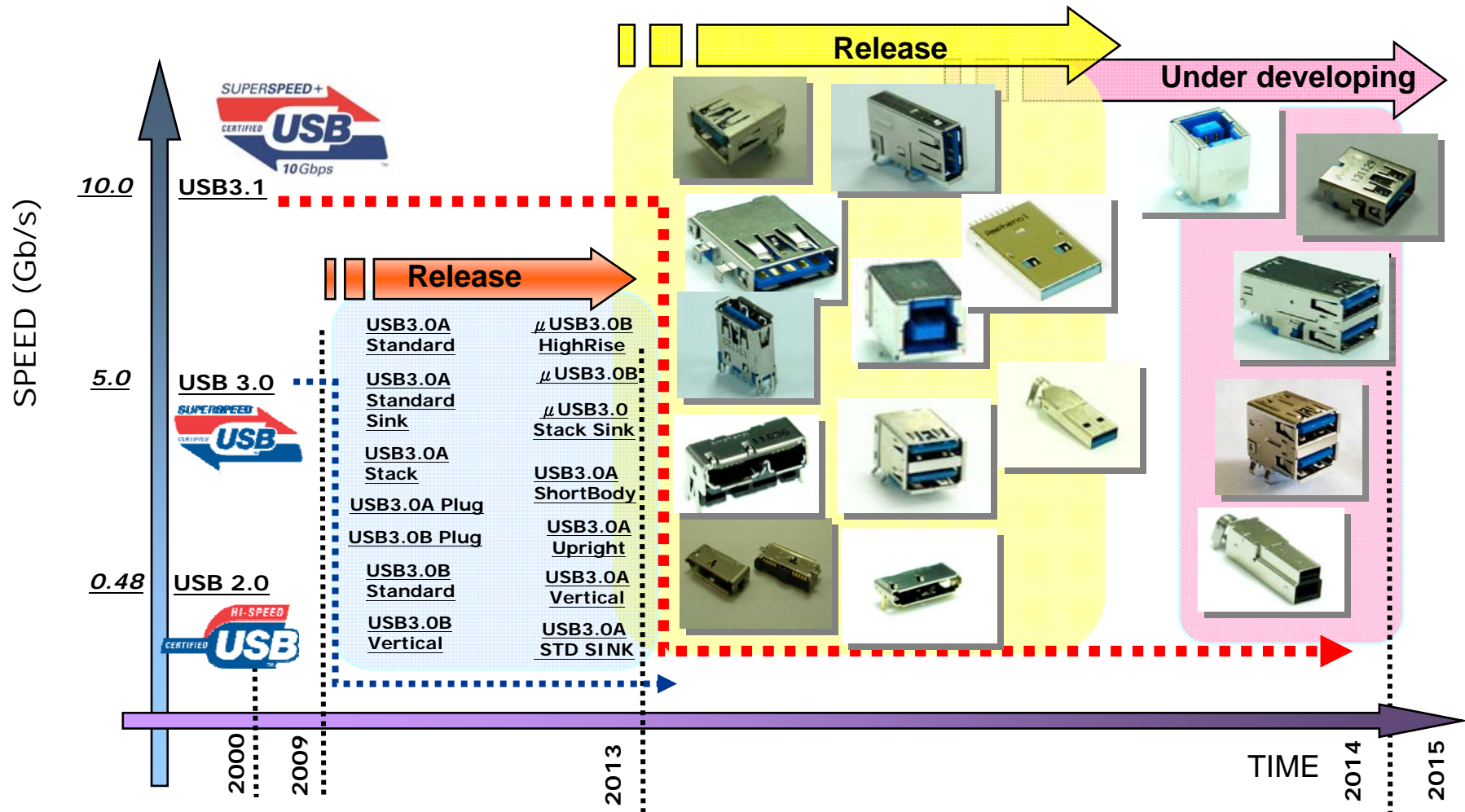
SS RX (Mated with Cable) - Passed



USB3.1, SUPERSPEED+, Road Map

Part no: GSB4X Series

USB Certification milestone , and AMTA 2014 developing Plan.



Thank you for the attention