



SuperSpeed USB: The Latest Iteration of USB

CES 2012

Jeff Ravencraft, USB-IF - President & COO

Agenda



- SuperSpeed USB Key Messages
- Announcements
- Market Overview
- USB TechZone Exhibitors

SuperSpeed USB

Key Messages



- Delivers effortless audio/video streaming, music and photos to your home, office, car and anywhere in between-
 - Across TVs, Set-top Boxes, PCs, Phones, Cars
 - Up to 10x faster than Hi-Speed USB
- End-to-end solutions available to consumers worldwide
 - **360+** certified products
- USB is the universal charger – one cable charges them all
 - Delivers almost 2x the power of Hi-Speed USB (900 vs. 500 milliamps)
- SuperSpeed USB extends battery life
 - USB 3.0 uses 1/3 the power of USB 2.0 to move the same amount of data
- SuperSpeed USB works with all USB products
 - It's backward compatible with USB 2.0

Support for SuperSpeed USB



- Intel Chipset Achieves SuperSpeed USB Certification, December 2011
 - Intel 7 Series Chipset and C216 Chipset Families



"Intel is excited to integrate SuperSpeed USB technology into our upcoming chipsets."
- Ahmad Zaidi, General Manager, Intel Corporation Chipset and SoCIP Group

- Microsoft Announced Windows 8 Support for USB 3.0, August 2011



"One of the important roles Windows plays as part of a broad ecosystem is developing support for new hardware. This is a pretty involved process and so for this post we wanted to take a look at supporting USB 3.0, something we know everyone is anxious to be using because of the improvements it brings."
- Steven Sinofsky, President of the Windows Division at Microsoft

- AMD announced first certified SuperSpeed USB chipsets, April 2011
 - A75 and A70M FCH chipsets



"The integration of SuperSpeed USB...demonstrates AMD's commitment to providing the industry's latest, most innovative connectivity technologies."
- Chris Cloran, AMD Corporate Vice-President and General Manager, Client Group

USB Specification Developments



- **Audio/Video Device Class Specification**
 - Supports transfer of A/V data over USB for cell phones, cameras, pico projectors, webcams, large HD displays, TVs
 - Enables device manufacturers to develop single-cable devices, which provide both power & display over one USB cable
 - Provides consumers with solution that supplies data transfer, A/V capabilities, power, mass storage & more
- **Mobile Broadband Interface Model Specification**
 - Supports multiple IP connections per a single USB interface
 - Enables flexible, efficient, low-cost, low-power device implementations
 - Minimizes overhead, improves data transfer efficiency by sending raw IP frames, eliminating the need for Ethernet headers
- **Power Delivery Specification**
 - Enables high voltage and current in order to deliver power up to 100W
 - Compatible with existing cables and connectors
 - Enables voltage and current values to be negotiated over the USB power pins
 - Switchable source of power delivery without changing cable direction
- **SSIC Specification**
 - Defines chip-to-chip USB-based interconnect optimized for mobile device internal use
 - Spec will bring MIPI PHY's high bandwidth and low power & performance enhancements of SuperSpeed USB

Announcements



USB-IF Announces Intel® 7 Series Chipset and Intel® C216 Chipset Family SuperSpeed USB Certification Achievement

Intel integrated SuperSpeed USB host silicon paves the road for SuperSpeed USB mass adoption

BEAVERTON, Ore. – December 12, 2011 – The USB Implementers Forum ([USB-IF](#)) today announced the upcoming Intel® 7 Series Chipset and Intel® C216 Chipset Family host silicon has achieved SuperSpeed USB certification by the USB-IF.

USB-IF Announces New USB Audio/Video Device Class Specification

Addition of A/V Capabilities Enable Comprehensive USB Solutions

BEAVERTON, Ore. – December 8, 2011 – The USB-IF today announced its release of the USB-IF Audio/Video Device Class Specification.

USB-IF Announces Availability of Mobile Broadband Interface Model Specification

MBIM 1.0 specification expands consumer control of USB mobile devices

BEAVERTON, Ore. – November 17, 2011 – The USB-IF today announced its release of the Mobile Broadband Interface Model (MBIM) 1.0 Specification.

USB-IF Announces VIA Labs 4-Port Host Controller Certification

Latest certified SuperSpeed USB host controller to help drive industry expansion

SAN FRANCISCO, Calif. – September 13, 2011 – The USB Implementers Forum ([USB-IF](#)) today announced that the VIA Labs VL800 4-port SuperSpeed USB host controller has gained USB-IF certification.

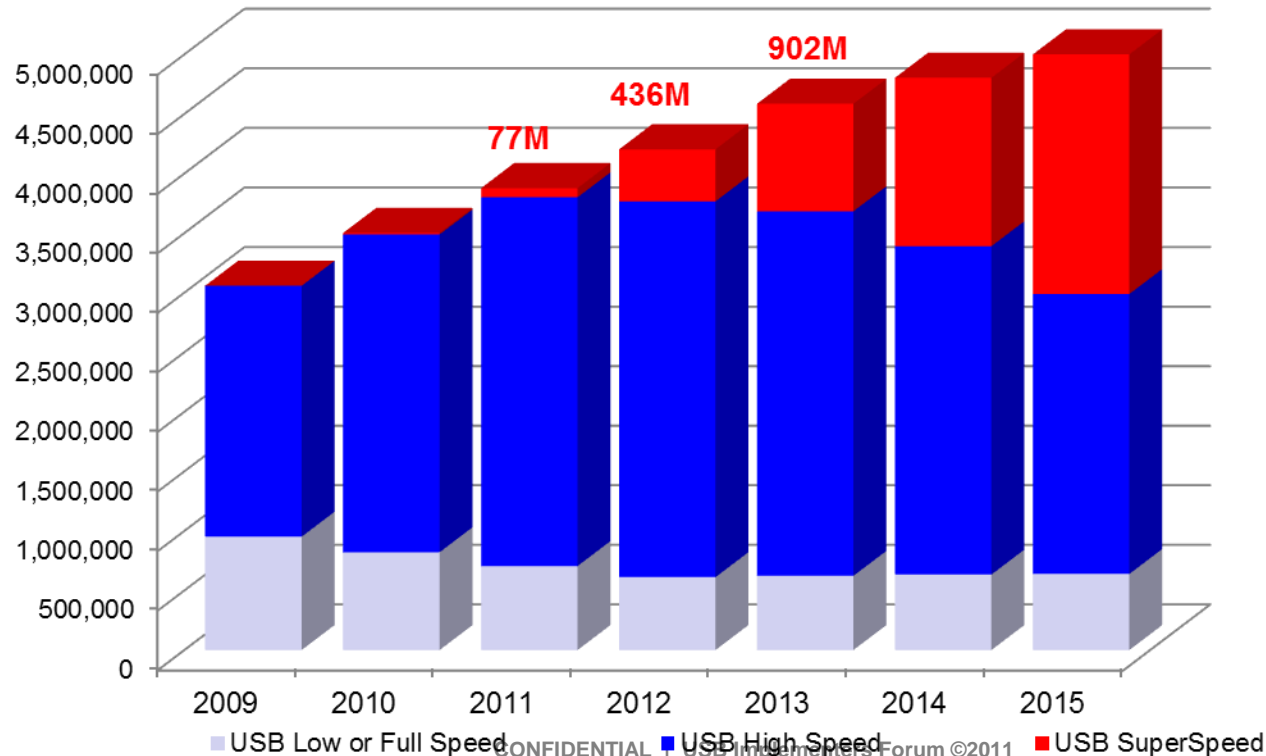
Worldwide Shipment of USB-enabled Devices



- USB is the most successful interface in the history of PC
- Device charging over USB has become a major consumer feature
- USB installed base is 10+ billion units and growing at 3+ billion units a year
- Adoption is virtually 100% in PC and peripheral categories

USB-enabled Device Shipments and Forecast: 2009 - 2015

Units in Thousands



CONFIDENTIAL | USB Implementers Forum ©2011

Questions?



- Press kit available at:
 - www.usb.org/press/presskit
- Follow-up:
 - Mary Slonske
press@usb.org
503.720.9042



Back-Up

EU Adopts Micro-USB for Universal Charging Requirements



One Charger for All EU Video

- <http://www.youtube.com/watch?v=E07ReXG4ims>

Market Acceptance



USB 3.0 | 2011:

- ASUS shipped 2 million USB 3.0 motherboards in Q1'11
- GIGABYTE on track to ship 7.5 million USB 3.0 motherboards by end of 2011
- Renesas announced 30 million USB 3.0 host controllers shipped through May 2011
- Renesas increased production to 6 million USB 3.0 host controllers per month in June 2011
 - Renesas on track to ship 72+ million USB 3.0 host controllers by end of 2011
- Certified USB 3.0 host controllers now available from 8 companies
 - AMD, ASMedia, Etron, Fresco Logic, Intel, Renesas, Texas Instruments and VIA Labs
- AMD announced first certified SuperSpeed USB chipset at IDF Beijing 2011
- Intel announced support for USB 3.0 integration into Ivy Bridge chipset at IDF Beijing 2011
- VIA Labs announced certified SuperSpeed USB host controller at IDF 2011
- Intel announced certified SuperSpeed USB chipset in December 2011

Certified SuperSpeed USB Products



Need for SuperSpeed USB



- Flash-based peripherals requiring much higher data rates
 - Digital cameras and camcorders
 - Flash memory drives (USB thumb sticks, and cards)
 - Flash-based digital MP3 and video players
 - PC, Mobile, Handheld PCs and smart phones (SSDs)
- User wait time requirement, 90 seconds to synchronize
- Interface performance sets the requirement

	Song / Pic	256 Flash	USB Flash	SD-Movie	USB Flash	HD-Movie
	4 MB	256 MB	1 GB	6 GB	16 GB	25 GB
USB 1.0	5.3 sec	5.7 min	22 min	2.2 hr	5.9 hr	9.3 hr
USB 2.0	0.1 sec	8.5 sec	33 sec	3.3 min	8.9 min	13.9 min
USB 3.0	0.01 sec	0.8 sec	3.3 sec	20 sec	53.3 sec	70 sec

**Your Connectivity Is Only As
Fast As Your Memory**