

Notes on USB3

- USB3 Specification is not done yet
 - USB3 Definitions are still changing.
- 1394b S800, S1600, and S3200 specifications are final.

Comparison 1394b and USB2 (1Q2008)

	IEEE 1394b-2002	USB 2.0
Bit rate	1000Mbps	480Mbps
Bit Error Rate	10^{-12}	10^{-9}
Transfer rate	92MBps	Less (<22MBps, storage case)
Addressing	64 bit	7 bit
Device ID	Global Unique ID	Left to Host
Transfer	HW arbitrated	Host scheduled
Max size packet	8Kbytes	1KByte
Broadcast	Yes cycle starts	Start of Frame

Comparing 1394b and USB 3.0 (1/3)

	IEEE 1394b-2002	USB 3.0
Bit rate	4Gbps	5Gbps
Bit Error Rt	10^{-12} (same)	Changed to 10^{-12}
Cable Lgth	4.5m (nominal)	Shorter, ~3.0m
Electrical Connection	Dual simplex, 2 TP (same)	Changed to: Dual simplex, 2 TP
Coding	Same	Changed to 8B/10B
Transmitter	DeEmphasis	Added DeEmphasis
Receiver	Added Equilization	Added Equilization
Addressing	64 bit (Same)	Adding 64 bit
Max packet	32Kbytes	1KByte (Same as USB2)