FCIA OFFICIAL SPEEDMAP

V20

1-2-2015

Roadmap Subcommittee

Scott Kipp, Chair

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14-376v0

FC

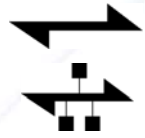| Product Naming	Throughput (Mbytes/s)	Line Rate (Gbaud)	T11 Specification Technically Complete (Year)*	Market Availability (Year)*
1GFC	200	1.0625	1996	1997
2GFC	400	2.125	2000	2001
4GFC	800	4.25	2003	2005
8GFC	1,600	8.5	2006	2008
16GFC	3,200	14.025	2009	2011
32GFC	6,400	28.05	2013	2016
128GFC	25,600	4X28.05	2014	2016
64GFC	12,800	56.1	2017	2019
256GFC	51,200	4X56.1	2017	2019
128GFC	25,600	TBD	2020	Market Demand
256GFC	51,200	TBD	2023	Market Demand
512GFC	102,400	TBD	2026	Market Demand
1TFC	204,800	TBD	2029	Market Demand

"FC" used throughout all applications for Fibre Channel infrastructure and devices, including edge and ISL interconnects. Each speed maintains backward compatibility at least two previous generations (I.e., 8GFC backward compatible to 4GFC and 2GFC)
*Dates: Future dates estimated

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ISL
(Inter-Switch Link)

Product Naming	Throughput (MBytes/s)	Line Rate (Gbaud)**	Standard Technically Complete (Year)*	Market Availability (Year)*
10GFC	2,400	10.52	2003	2009
20GFC	4,800	21.04	N/A	2008
40GFCoE	9,600	41.25	2010	2013
100GFCoE	24,000	10X10.3125	2010	Market Demand
100GFCoE	24,000	4X25.78125	2015	Market Demand
128GFC	25,600	4X28.05	2014	2016
256GFC	51,200	4X56.1	2017	2019
400GFCoE	96,000	8X51.5625	2017	Market Demand
1TFCoE	240,000	TBD	2029	Market Demand

ISLs are usually multi-lane interconnects used for non-edge, core connections, and other high speed applications demanding maximum bandwidth.
ISL's utilize high bit-rates to accommodate the funneling of edge connections. Some ISL solutions are vendor-proprietary.
*Dates: Future dates estimated
**Equivalent Line Rate: Rates listed are equivalent data rates for serial stream methodologies.

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FCoE

Product Naming	Throughput (MBytes/s)	Line Rate (Gbaud)**	IEEE Standard Complete (Year)*	Market Availability (Year)*
10GFCoE	2,400	10.52	2002	2008
40GFCoE	9,600	41.25	2010	2013
100GFCoE	24,000	10X10.3125	2010	Market Demand
100GFCoE	24,000	4X25.78125	2015	Market Demand
400GFCoE	96,000	8X51.5625	2017	Market Demand

Fibre Channel over Ethernet tunnels FC through Ethernet. 10GFCoE was not available until after FC-BB-5, the FCoE protocol standard, was completed in 2007.   For compatibility, all 10GFCoE FCFs and CNAs are expected to use SFP+ devices, allowing the use of all standard and non-standard optical technologies and additionally allowing the use of direct connect cables using the SFP+ electrical interface. FCoE ports otherwise follow Ethernet standards and compatibility guidelines.

*Dates: Future dates estimated

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