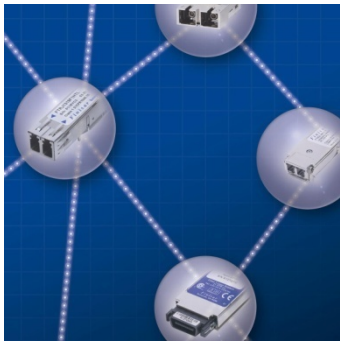


*Finisar*



## Xgig<sup>®</sup> Trace Viewer Support on FCoE

**T11/07-682v0**, December 2007

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# What is Xgig Trace Viewer?

- ▶ Free available Xgig Trace Viewer offered by Finisar
  - ▶ Download: <http://www.finisar.com/xgig/>
- ▶ Multi-Protocol decodes, trace display, quick searches/filters, and protocol analysis
  - ▶ Fibre Channel, Ethernet, SAS/SATA, FCoE, iSCSI, etc.
- ▶ Powerful tool for protocol development and network troubleshooting
- ▶ Reads snoop and other standard trace file formats

# Use Xgig Trace Viewer to Analyze FCoE Traces

- ▶ Show 100% data on the link including MAC PAUSE frames
- ▶ Traceview decodes
  - ▶ Supports multiple FCoE proposals
    - ▶ Draft 07-479v0
    - ▶ Draft 07-303v0
    - ▶ Draft 07-292v3
  - ▶ CRC Calculation and verification
    - ▶ Ethernet CRC
    - ▶ Fibre Channel CRC inside FCoE frame
- ▶ Quickly Search/filter functions valid through FC encapsulations
  - ▶ Able to search FC frames in FCoE
- ▶ Multi-protocol detection and decoding
  - ▶ Can take hybrid traces and display all protocols together

# Xgig Trace Viewer Example

Xgig TraceView Trial Version - C:\traces\FCoE\la\coe.TGP - [View1]

File Edit View Histogram Tools Window Options Help

00:38.056\_598\_212 All Ports

Icon	Boo	mm:ss.ms_us_ns (R)	DT/Port	Port	Count - Type	Count - Type	Protoc	Summary	TCP b	Bytes	Destination [N
FR		00:38.003_705_864		GE_Port 5	1 - FC4Status	1 - FC4Status	FCP	Good Status;		89	564757361 - 00
FR		00:38.056_598_212	2926.425	GE_Port 4	1 - FC4Cmd	1 - FC4Xrdy	FCP	Writer(6); LUN = 0x0000; LBA6 = 0x010000; FCP_DL = 0x00005AB4;		97	F70686965 - 00
FR		00:38.058_182_249	34476.385	GE_Port 5	1 - FC4Data	1 - FC4Data	FCP	DATA_RO = 0x00000000; BURST_LEN = 0x00005AB4;		77	564757361 - 00
FR		00:38.058_387_464	1789.252	GE_Port 4	1 - FC4SData	1 - FC4SData	FC	FC4SData; SCSI FCP; Offset = 0x00000000; Len = 0x840;		2177	F70686965 - 00
FR		00:38.058_407_944	20.480	GE_Port 4	1 - FC4SData	1 - FC4SData	FC	FC4SData; SCSI FCP; Offset = 0x00000840; Len = 0x840;		2177	F70686965 - 00

Tree 10Bit General

- Data Link Control (DLC)
  - Destination = 0x536F70686965
  - Source = 0x4D6564757361
  - EtherType = 0x8906 FCoE
- Fibre Channel over Ethernet (FCoE)
  - Ver = 0x0
  - SOF = 0x2E SOFi3
- Fibre Channel (FC)
  - Rctl = 0x06 FC4Cmd
  - D\_Id = 0x0000E8
  - CS\_CTL = 0x00
  - S\_Id = 0x0000DA
  - Type = 0x08 SCSI FCP
  - F\_Ctl = 0x290000
    - SEQ\_Id = 0x00
    - DF\_Ctl = 0x00
    - SEQ\_Cnt = 0x0000
    - OX\_Id = 0x0491
    - RX\_Id = 0xFFFF
    - PARA = 0x00000000
- FCP\_CMND IU Payload
  - Logical Unit Number = 0x0000
  - Cmd Reference Number = 0x00
  - Priority = 0x0
  - Task Attribute = 0x5 UtTM
  - Task Management Flags = 0x00
  - AddCDBLen = 0
  - RDData = 0x0 Off
  - WRData = 0x1 On
  - CDB Write(6)
    - FCP\_DL = 0x00005AB4
- Fibre Channel over Ethernet (FCoE)
  - FC-CRC = 0x989B4648 (Correct)
  - EOF = 0x42 EOFt
- End Of Frame
  - CRC = 0x00000017 (Correct)
  - GE End = 0xFD /T/

Index	Hex	Ascii
0000	53 6F 70 68 69 65 4D 65 64 75 73 61	SophieMedusak...
0010	00 00 00 00 00 00 00 00 00 00 00 00	.....è
0020	00 00 00 DA 08 29 00 00 00 00 00 00	...Ù.).....
0030	00 00 00 00 00 00 00 00 00 00 00 01	.....
0040	0A 01 00 00 2D 00 00 00 00 00 00 00	.....
0050	00 00 5A B4 98 9B 46 48 42 00 00 00	...Z" >FHB.....
0060	FD	ÿ

Multi-View Formats

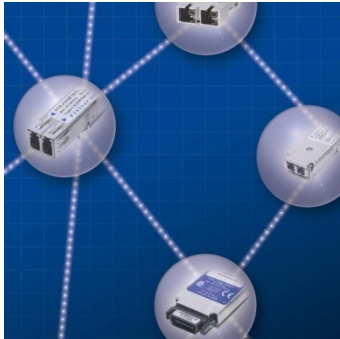
- ▶ 8bit/10bit view
- ▶ Hex/ASCII
- ▶ Frame list
- ▶ Frame tree view
- ▶ Histogram

Ready Filters X OS X QF X RH X Overlap X 1.25 Gbps

# Future Supports

- ▶ Software future releases plan
  - ▶ Xgig Trace Viewer 4.0, Dec' 07
    - ▶ Support enhanced MAC paused frame proposal IEEE 802.1Qau
  - ▶ Xgig Trace Viewer 4.X, 1<sup>st</sup> Half' 08
    - ▶ Continue to support the most recent FCoE and Enhanced Ethernet proposals

*Finisar*



Thank You!