



InfiniBand Trade Association

Compliance Integrators' List

May 2025 - Plugfest



IBTA Compliance Integrators' List

PlugFest 42 May 2025



Manufacturer	Description	Model	Type	Speed	FW	SW
Nvidia	ConnectX-7 200GbE NDR200 IB, Dual-port QSFP112 , PCIe 5.0 x16	MCX755106AC- HEAT	HCA and RNIC	200 GbE	32.40.100	MLNX-OS 24.01-0.3.3.1
Nvidia	BlueField-3 B3140H 400GbE/NDR IB, Single-port QSFP112	900-9D3D4-00EN-HA0	HCA and RNIC	400 GbE	32.40.100	
Nvidia	ConnectX-7 400GbE/ NDR IB, Single-port QSFP112	MCX715105AS- WEAT	HCA and RNIC	400 GbE	28.45.1020	
Nvidia	ConnectX-7 400GbE/NDR IB Single-port OSFP	MCX75310AAS- NEAT	HCA and RNIC	400 GbE	28.45.1020	
Nvidia	ConnectX-7 400Gb/s NDR IB , Single-port OSFP, PCIe 5.0 x16 Centaur	MCX 75510 AAS- NEAT	HCA and RNIC	400 GbE	28.45.1020	
Nvidia	Spectrum-3 32 QSFPDD ports Supports 10 to 400GbE Onyx OS	MSN4700-WS2F	Switch	400 GbE	30.2010.4208	Onyx 3.10.4206
Nvidia	Quantum 2 based NDR InfiniBand Switch; 64 NDR ports; 32 OSFP ports; switching capacity of 51.2Tbps; Managed ;	MQM9700-NS2F	Switch	400 GbE	30.2010.4208	
Nvidia	Spectrum-4 64 OSFP ports and 2 SFP28 ports 800GbE 2U	SN5610	Switch	800 GbE	1.9.3	

Software	Versions
Operating System	Rocky Linux 9.5
INBOX IB Support	Rocky Linux 9.5
Mellanox OFED	doca-host-3.1.0-091000_25.07_rhel95.x86_64.rpm
Open MPI	openmpi-5.0.7.tar.gz
Benchmark	Intel MPI Benchmarks 2021.16.1
Benchmark Docs	Intel MPI Benchmarks Documentation
Test Plan	Software Forge RoCE Interoperability MOI



IBTA RoCE Transport Compliance Plugfest 42 May 2025



Manufacturer	Product Description	Model	FW	SW	Transport
NVIDIA	NVIDIA ConnectX-7 HHHL Adapter Card, 400GbE/NDR IB, Single-port QSFP112	MCX715105AS- WEAT	28.40.1000	DOCA-Host-3.1.0-091000_25.07 rhel95.x86_64.rpm	✓
NVIDIA	NVIDIA ConnectX-7 HHHL Adapter Card, 400GbE/NDR IB, Single-port OSFP	MCX75310AAS- NEAT	28.40.1000	DOCA-Host-3.1.0-091000_25.07 rhel95.x86_64.rpm	✓
NVIDIA	NVIDIA ConnectX-7 HHHL Adapter Card, 400GbE/NDR IB, Single-port OSFP	MCX755106AC- HEAT	28.45.1020	DOCA-Host-3.1.0-091000_25.07 rhel95.x86_64.rpm	✓
NVIDIA	Nvidia BlueField -3 B3140H E-series HHHL SuperNIC, 400GbE/NDR IB, Single-port QSFP112	900-9D3D4-00EN-HA0	32.40.1000	DOCA-Host-3.1.0-091000_25.07 rhel95.x86_64.rpm	✓

NVIDIA HCAs and NICs		Model	MCX715105AS-WEAT	MCX75310AAS-NEAT	MCX755106AC-HEAT	900-9D3D4-00EN-HA0
		Date	2024-05-31-01	2024-05-31-01	2025-05-20-01	2024-05-31-03
		Firmware Version	28.40.1000	28.40.1000	28.45.1020	32.40.1000
		Overall Results	Pass	Pass	Pass	Pass
Test Class	Name	Number	Results	Results	Results	Results
Transport Layer	RC RDMA Send Only after RDMA Read	C09_027_01	Pass	Pass	Pass	Pass
	RC RDMA Write Only after RDMA Read	C09_027_02	Pass	Pass	Pass	Pass
	RC RDMARead Only after RDMA Read	C09_027_03	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after RDMA Read	C09_027_04	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after RDMA Read	C09_027_05	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after Atomic CompSwap	C09_027_06	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after Atomic CompSwap	C09_027_07	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after Atomic FetchAdd	C09_027_08	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after Atomic FetchAdd	C09_027_09	Pass	Pass	Pass	Pass
	RC RDMA Send Only after Atomic CompSwap	C09_027_10	Pass	Pass	Pass	Pass
	RC RDMA Write Only after Atomic CompSwap	C09_027_11	Pass	Pass	Pass	Pass
	RC RDMA Send Only after Atomic FetchAdd	C09_027_12	Pass	Pass	Pass	Pass
	RC RDMA Write Only after Atomic Fetch Add	C09_027_13	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Send Case	C09_060_01	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Send Case (inverted)	C09_060_01_01	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Write Case	C09_060_03	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Write Case (inverted)	C09_060_03_01	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Read Case	C09_060_05	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Read Case (inverted)	C09_060_05_01	Pass	Pass	Pass	Pass
	Completion Rules - Atomic FetchAdd Case	C09_060_07	Pass	Pass	Pass	Pass
	Completion Rules - Atomic FetchAdd Case (inverted)	C09_060_07_01	Pass	Pass	Pass	Pass
	Completion Rules - Atomic CompSwap Case	C09_060_09	Pass	Pass	Pass	Pass
	Completion Rules - Atomic CompSwap Case (inverted)	C09_060_09_01	Pass	Pass	Pass	Pass
	Requester/Responder RNR NAK Behavior	C09_130_01	Pass	Pass	Pass	Pass
	Outstanding Request Timeout	C09_142_01	Pass	Pass	Pass	Pass



IBTA InfiniBand Compliance Host Channel Adapters (HCAs) Plugfest 42 May 2025



Nvidia HCAs			Model	900-9D3D4-00EN-HA0-BF3	MCX715105AS-WEAT	MCX75310AAS-NEAT	MCX75510AAS-NEAT
			Date	2025-05-19-01	2025-05-19-01	2025-05-19-01	2025-05-19-01
			Firmware Version	32.40.100	28.45.1020	28.45.1020	28.45.1020
			Overall Results	Pass	Pass	Pass	Pass
Test Class	Name	Number	Results	Results	Results	Results	Results
Management	ResponseTimeValue	C13-013	Pass	Pass	Pass	Pass	Pass
	ResponseTimeValue - Single Packet	C13-014_01	Pass	Pass	Pass	Pass	Pass
Subnet Management	No M_Key Checking	C14-015	Pass	Pass	Pass	Pass	Pass
	M_Key Checking - SubnGet	C14-016_Get	Pass	Pass	Pass	Pass	Pass
	M_Key Checking - SubnSet	C-14-016_Set	Pass	Pass	Pass	Pass	Pass
	M_Key Lease Period Timer - Part 1	C-14-017	Pass	Pass	Pass	Pass	Pass
	M_Key Lease Period Timer - Part 2		Pass	Pass	Pass	Pass	Pass
	M_Key Lease Period Timer - Part 3		Pass	Pass	Pass	Pass	Pass
	M_Key Lease Period Timer - Part 4		Pass	Pass	Pass	Pass	Pass
	M_Key Lease Period Timer - Part 5		Pass	Pass	Pass	Pass	Pass
	M_Key Violation Counter	C14-018	Pass	Pass	Pass	Pass	Pass
	M_Key Components in NVRAM	C14-023	Pass	Pass	Pass	Pass	Pass
	Node Description	C14-024#02	Pass	Pass	Pass	Pass	Pass
	NodeInfo	C14-024#03	Pass	Pass	Pass	Pass	Pass
	GUIDInfo	C14-024#05	Pass	Pass	Pass	Pass	Pass
	PortInfo xCA - Part 1	C14-024#06_CA_01	Pass	Pass	Pass	Pass	Pass
	PortInfo xCA - Part 2	C14-024#06_CA_02	Pass	Pass	Pass	Pass	Pass
	PortInfo xCA - Part 3	C14-024#06_CA_03	Pass	Pass	Pass	Pass	Pass
	PortInfo xCA - Part 4	C14-024#06_CA_04	N/A	N/A	N/A	N/A	N/A
	PortInfo xCA - Part 5	C14-024#06_CA_05	N/A	N/A	N/A	N/A	N/A
	PortInfo xCA - Part 6	C14-024#06_CA_06	Pass	Pass	Pass	Pass	Pass
	PortInfo LocalPortNum	C14_024_06_LocalPortNum	Pass	Pass	Pass	Pass	Pass
	P_Key - Part 1	C14-024#07_01	Pass	Pass	Pass	Pass	Pass
	SLToVL Mapping - Part 1	C14-024#08_01	Pass	Pass	Pass	Pass	Pass
	SLToVL Mapping - Part 2	C14-024#08_02	N/A	N/A	N/A	N/A	N/A
	VLArbitation - CA	C14-024#09_xCA	Pass	Pass	Pass	Pass	Pass
	LedInfo	C14-024#15	Pass	Pass	Pass	Pass	Pass



IBTA InfiniBand Compliance Host Channel Adapters (HCAs) Plugfest 42 May 2025



Subnet Manager	SMInfo - Supported	C14-024#13-01	Pass	Pass	Pass	Pass
	SMInfo - Unsupported	C14-024#13-03	N/A	N/A	N/A	N/A
	SM Yield - Part 1	C14-041.1.1-1	Not-imp	Not-imp	Not-imp	Not-imp
Subnet Administration	SubnAdminGet(PathRecord)	C15-0.1-012#17.01	Pass	Pass	Pass	Pass
	SubnAdminGet(PathRecord) - Part 1	C15-0.1-012#17.02 - Part 1	Pass	Pass	Pass	Pass
	SubnAdminGet(PathRecord) - Part 2	C15-0.1-012#17.02 - Part 2	Pass	Pass	Pass	Pass
	SubnAdminGet(PathRecord) - Part 3	C15-0.1-012#17.02 - Part 3	Pass	Pass	Pass	Pass
	SM-SA Validation	SM-SA Validation	Pass	Pass	Pass	Pass



IBTA InfiniBand Compliance Switch Results

Plugfest 42 May 2025



Nvidia Switches		Model	MQM9700-NS2F
		Date	2024-04-19-01
		Firmware Version	31.2010.6102
		Overall Results	Pass
Test Class	Name	Number	Results
Management	ResponseTimeValue	C13-013	Pass
	ResponseTimeValue - Single Packet	C13-014_01	Pass
Subnet Management	No M_Key Checking	C14-015	Pass
	M_Key Checking - SubnGet	C14-016_Get	Pass
	M_Key Checking - SubnSet	C-14-016_Set	Pass
	M_Key Lease Period Timer - Part 1	C-14-017	Pass
	M_Key Lease Period Timer - Part 2		Pass
	M_Key Lease Period Timer - Part 3		Pass
	M_Key Lease Period Timer - Part 4		Pass
	M_Key Lease Period Timer - Part 5		Pass
	M_Key Violation Counter	C14-018	Pass
	M_Key Components in NVRAM	C14-023	Pass
	Node Description	C14-024#02	Pass
	NodeInfo	C14-024#03	Pass
	SwitchInfo - RO	C14-024#04_SW_01	Pass
	SwitchInfo - Part 1	C14-024#04_SW_02	Pass
	SwitchInfo - Part 2	C14-024#04_SW_03	Pass
	GUIDInfo	C14-024#05	Pass
	PortInfo Switch - Part 1	C14-024#06_SW_01	Pass
	PortInfo Switch - Part 2	C14-024#06_SW_02	Pass
	PortInfo Switch - Part 3	C14-024#06_SW_03	N/A
	PortInfo Switch - Part 4	C14-024#06_SW_04	Pass
	PortInfo Switch - Part 5	C14-024#06_SW_05	Pass
	PortInfo Switch - Part 6	C14-024#06_SW_06	Pass
	PortInfo Switch - Part 7	C14-024#06_SW_07	Pass
	PortInfo LocalPortNum	C14_024_06_LocalPortNum	Pass



IBTA InfiniBand Compliance Switch Results

Plugfest 42 May 2025



Nvidia Switches		Model	MQM9700-NS2F
		Date	2024-04-19-01
		Firmware Version	31.2010.6102
		Overall Results	Pass
Subnet Management	P_Key - Part 1	C14-024#07_01	Pass
	P_Key - Part 2	C14-024#07_02	N/A
	P_Key - Part 3	C14-024#07_03	Pass
	P_Key - Part 4	C14-024#07_04	Pass
	P_Key - Part 5	C14-024#07_05	Pass
	SLToVL Mapping - Part 3	C14-024#08_03	Pass
	SLToVL Mapping - Part 4	C14-024#08_04	N/A
	SLToVL Mapping - Part 5	C14-024#08_05	Pass
	VLArbitration - SW	C14-024#09_SW	Pass
	LFT - Unsupported	C14-024#10_01	N/A
	LFT Supported - Valid Ports	C14-024#10_02	Pass
	LFT Supported - Invalid Ports	C14-024#10_03	Pass
	Random Forwarding Table	C14-024#11	Pass
	Mcast Forwarding Table	C14-024#12	Pass
	LedInfo	C14-024#15	Pass
Subnet Manager Subnet Administration	SMInfo - Supported	C14-024#13-01	Pass
	SMInfo - Unsupported	C14-024#13-03	N/A
	SubnAdminGet(ServiceRecord)	C15-0.1.012#15	Pass
	SubnAdminGet(PathRecord)	C15-0.1.012#17.01	Pass
	SubnAdminGet(PathRecord) - Part 1	C15-0.1-012#17.02 - Part 1	Not-imp
	SubnAdminGet(PathRecord) - Part 2	C15-0.1-012#17.02 - Part 2	Not-imp
	SubnAdminGet(PathRecord) - Part 3	C15-0.1-012#17.02 - Part 3	Not-imp
	SM-SA Validation	SM-SA Validation	Pass



May 2025 IBTA Plugfest 42

Active NDR

Compliant Cables



Company Info		Cable Information								
Company	Part Number	Width	Max Speed	Max Len (m)	AWG	Connector Type	Cable Type	Connector Type Side A	Connector Type Side B	NDR Results
Amphenol	OP27PD8-10D	8x	800	500	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Amphenol	OP13PD8-005D	8x	800	500	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Amphenol	OP13PD8-005D-3	8x	800	10000	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
AOI	A8SNANQ8EDLA1714	8x	800	500	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
AOI	A8SLBCQ8EDLA1485	8x	800	2000	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
AOI	A8SA9N30ADLA1628	8x	800	30	N/A	1 to 1	AOC	OSFP-IHS-Open	OSFP-IHS-Open	Pass *
AOI	A8SA9N30ADLA1628	8x	800	30	N/A	1 to 1	AOC	OSFP-IHS-Open	OSFP-IHS-Open	Pass *
Cisco Systems	M850D19A-xxx	8x	800	2000	N/A	1 to 1	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
CONNPRO,Ind.	AINCF7F7L50TT1	4x	400	50	N/A	1 to 1	AOC	QSFP112	QSFP112	Pass *
CONNPRO,Ind.	AINCF9FBL50TT1	8x	800	50	N/A	1 to 2	AOC	OSFP-IHS-Closed	OSFP-RHS	Pass *
CONNPRO,Ind.	AINCF9FCL50TT1	8x	800	50	N/A	1 to 2	AOC	OSFP-IHS-Closed	QSFP112	Pass *
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Credo	CAC83X321A1B-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC83X321A1B-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	1 to 2	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	1 to 2	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	1 to 2	AEC	OSFP-IHS-Closed	QSFP112	Pass *
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	1 to 2	AEC	OSFP-IHS-Closed	QSFP112	Pass *
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-IHS-Closed	Pass
Credo	CAC83X321A1B-C2-HW	8x	800	3	32	1 to 1	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	1 to 2	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *



May 2025 IBTA Plugfest 42

Active NDR

Compliant Cables



Company Info		Cable Information								
Company	Part Number	Width	Max Speed	Max Len (m)	AWG	Connector Type	Cable Type	Connector Type Side A	Connector Type Side B	NDR Results
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	1 to 2	AEC	OSFP-IHS-Closed	OSFP-RHS	Pass *
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	1 to 2	AEC	OSFP-IHS-Closed	QSFP112	Pass *
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	1 to 2	AEC	OSFP-IHS-Closed	QSFP112	Pass *
Infraeo	O-100N-O-SR8	8x	800	50	N/A	1 to 1	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open	Pass
Infraeo	O-100-O-SR8	8x	800	50	N/A	1 to 1	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open	Pass
Infraeo	O-100-O-2OR-050	8x	800	50	N/A	1 to 2	AOC	OSFP-IHS-Open	OSFP-RHS	Pass *
Nvidia	980-9I510-00NS00MMA4Z00-NS	8x	800	50	N/A	1 to 1	AOC	OSFP-IHS-Open	OSFP-IHS-Open	Pass
TE Connectivity	2476103-1	8x	800	1	32	1 to 1	Copper - Full Active	OSFP-IHS-Open	OSFP-IHS-Open	Pass
TE Connectivity	2420142-5	8x	800	10	N/A	1 to 2	Transceiver	OSFP-IHS-Closed	QSFP112	Pass *
The Siemon Company	F1F112E02.0-8ZB	8x	800	2	30	1 to 1	Copper - Full Active	OSFP-IHS-Open	OSFP-IHS-Open	Pass
The Siemon Company	F1F112X10.0-3YQ	8x	800	10	N/A	1 to 1	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open	Pass
The Siemon Company	D1D112X05.0-3VQ	8x	800	5	N/A	1 to 1	Transceiver	QSFP-DD	QSFP-DD	Pass
The Siemon Company	D2Q112X05.0-3VQ	8x	800	5	N/A	1 to 2	Transceiver	QSFP-DD	QSFP112	Pass

Tested for both Tx and Rx **Pass**
Tested for Tx **Pass ***



May 2025 IBTA Plugfest 42

VNA NDR Results

Active and Passive Cables



Company Info		Cable Information							
Company	Part Number	Width	MAX Speed	Len (m)	AWG	Type	Equalization	Side A	Side B
Amphenol	OP27PD8-10D	8x	800	500	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
Amphenol	OP13PD8-005D	8x	800	500	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
Amphenol	OP13PD8-005D-3	8x	800	10000	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
Amphenol	NJMMRU-0001	8x	800	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
AOI	A8SMDN85ADLA1637	8x	800	50	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
AOI	A8SNANQ8EDLA1714	8x	800	500	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
AOI	A8SLBCQ8EDLA1485	8x	800	2000	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
AOI	ALQMANQ4DDLA1733	8x	400	500	N/A	Transceiver	Transceiver	QSFP-DD	QSFP-DD
AOI	ALQLBCQ4EDLA1577	8x	400	2000	N/A	Transceiver	Transceiver	QSFP-DD	QSFP-DD
AOI	ALQA9N30ADLA1580	8x	400	30	N/A	AOC	Fiber - Active	QSFP-DD	QSFP-DD
AOI	ALQA9N30ADLA1741	8x	400	30	N/A	AOC	Fiber - Active	QSFP-DD	QSFP-DD
AOI	A8SA9N03ADLA1628	8x	800	3	N/A	AOC	Fiber - Active	OSFP-IHS-Open	OSFP-IHS-Open
AOI	ALQA9N03ADLA1741	8x	400	3	N/A	AOC	Fiber - Active	QSFP-DD	QSFP-DD
BizLink	L45593-D880-C10	4x	400	1	28	DAC	Copper - Unequalized	QSFP112	QSFP112
BizLink	L45593-L887-C20	8x	800	2	28	DAC	Copper - Unequalized	OSFP-RHS	OSFP-RHS
BizLink	L45593-K881-C15	8x	800	1.5	28	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD
BizLink	L45593-L887-C15	8x	800	1.5	28	DAC	Copper - Unequalized	OSFP-RHS	OSFP-RHS
BizLink	L45593-M883-C15	8x	800	1.5	28	DAC	Copper - Unequalized	QSFP-DD	OSFP-RHS
BizLink	L45593-L880-B20	8x	800	2	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
BizLink	L45593-L800-BKS1	8x	800	2	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
BizLink	L45593-M882-C10	8x	800	1	28	DAC	Copper - Unequalized	QSFP-DD	OSFP-IHS-Open
BizLink	L45593-D880-C10	4x	400	1	28	DAC	Copper - Unequalized	QSFP112	QSFP112
BizLink	L45593-L887-C20	8x	800	2	28	DAC	Copper - Unequalized	OSFP-RHS	OSFP-RHS
BizLink	L45593-K881-C15	8x	800	1.5	28	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD



May 2025 IBTA Plugfest 42

VNA NDR Results

Active and Passive Cables



Company Info		Cable Information							
Company	Part Number	Width	MAX Speed	Len (m)	AWG	Type	Equalization	Side A	Side B
BizLink	L45593-M881-C20	8x	800	2	28	DAC	Copper - Unequalized	QSFP-DD	OSFP-RHS
BizLink	L45593-L887-C15	8x	800	1.5	28	DAC	Copper - Unequalized	OSFP-RHS	OSFP-RHS
BizLink	L45593-M883-C15	8x	800	1.5	28	DAC	Copper - Unequalized	QSFP-DD	OSFP-RHS
BizLink	L45593-M883-C10	8x	800	1	28	DAC	Copper - Unequalized	QSFP-DD	OSFP-RHS
BizLink	L45593-L880-B15	8x	800	2	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
BizLink	L45593-L1600-BFR1	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
BizLink	L45593-L1600-BKS1	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
Cisco Systems	M850P1AA-xxx	8x	800	2000	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
Cisco Systems	M850P1CA-xxx	8x	800	2000	N/A	Transceiver	Transceiver	OSFP-RHS	OSFP-RHS
Cisco Systems	M425P1DA-xxx	4x	400	2000	N/A	Transceiver	Transceiver	QSFP112	QSFP112
Cisco Systems	M850D19A-xxx	8x	800	2000	N/A	Transceiver	Transceiver	OSFP-IHS-Closed	OSFP-IHS-Closed
CONNPRO,Ind.	RINF7TF7T10002	4x	400	1	28	DAC	Copper - Unequalized	QSFP112	QSFP112
CONNPRO,Ind.	AINC7F7L50TT1	4x	400	50	N/A	AOC	Fiber - Active	QSFP112	QSFP112
CONNPRO,Ind.	AINC9FBL50TT1	8x	800	50	N/A	AOC	Fiber - Active	OSFP-IHS-Closed	OSFP-RHS
CONNPRO,Ind.	AINC9FCL50TT1	8x	800	50	N/A	AOC	Fiber - Active	OSFP-IHS-Closed	QSFP112
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-IHS-Closed
Credo	CAC83X321A1B-C2-HW	8x	800	3	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-RHS
Credo	CAC83X321A1A-C2-HW	8x	800	3	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-IHS-Closed
Credo	CAC83X321A1B-C2-HW	8x	800	3	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-RHS
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-RHS
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	AEC	Copper - Full Active	OSFP-IHS-Closed	QSFP112
Credo	CAC827321A2B-C1-HW	8x	800	2.7	32	AEC	Copper - Full Active	OSFP-IHS-Closed	OSFP-RHS
Credo	CAC825321A2N-C1-HW	8x	800	2.5	32	AEC	Copper - Full Active	OSFP-IHS-Closed	QSFP112
FIT Electronics	CUKKP82-AZZ1B-EF	8x	1600	0.5	28	DAC	Copper - Unequalized	OSFP-IHS-Closed	OSFP-IHS-Closed



May 2025 IBTA Plugfest 42

VNA NDR Results

Active and Passive Cables



Company Info		Cable Information							
Company	Part Number	Width	MAX Speed	Len (m)	AWG	Type	Equalization	Side A	Side B
FIT Electronics	CUKKP82-1ZZ1B-EF	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Closed	OSFP-IHS-Closed
FIT Electronics	CUKKP82-BZZ1C-EF	8x	1600	1.2	26	DAC	Copper - Unequalized	OSFP-IHS-Closed	OSFP-IHS-Closed
FIT Electronics	CUKKP82-BZZ1B-EF	8x	1600	1.5	26	DAC	Copper - Unequalized	OSFP-IHS-Closed	OSFP-IHS-Closed
FIT Electronics	CUKKP75-1ZZ10-EF	8x	800	1	32	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
FIT Electronics	CUKKP72-2ZZ10-EF	8x	800	2	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
FIT Electronics	CUKKP72-CZZ11-EF	8x	800	2.2	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
FIT Electronics	CUKKP72-CZZ10-EF	8x	800	2.5	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
FIT Electronics	CU4EP75-01000-EF	8x	800	1	32	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD
FIT Electronics	CURDP74-AZZ01-EF	4x	400	1	30	DAC	Copper - Unequalized	QSFP112	QSFP112
FIT Electronics	CURDP72-BZZ01-EF	4x	400	2	26	DAC	Copper - Unequalized	QSFP112	QSFP112
FIT Electronics	CURDP72-CZZ00-EF	4x	400	2.5	26	DAC	Copper - Unequalized	QSFP112	QSFP112
Infraeo	A-100N-OC-OC-030B	8x	800	3	28	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	P-200X-OC-OC-010B	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	O-100N-O-SR8	8x	800	50	N/A	Transceiver	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	A-200X-OC-OC-030B	8x	1600	3	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP
Infraeo	OL-100N-Q-SR4	4x	400	50	N/A	Transceiver	Transceiver	QSFP112	QSFP112
Infraeo	O-100N-O-2OR-050	8x	400	50	N/A	AOC	Fiber - Active	OSFP-IHS-Open	OSFP-RHS
Infraeo	A-200-OC-OC-020B	8x	1600	2	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	A-100-OC-OC-030B	8x	800	3	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	P-200-OC-OC-010B	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	P-100-QD-QD-015B	8x	800	1.5	26	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD
Infraeo	O-100-O-SR8	8x	800	50	N/A	Transceiver	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	E1-100-O-O-030B	8x	800	3	30	AEC	Copper - Limiting Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	E1-100-O-O-050B	8x	800	5	28	AEC	Copper - Limiting Active	OSFP-IHS-Open	OSFP-IHS-Open



May 2025 IBTA Plugfest 42

VNA NDR Results

Active and Passive Cables



Company Info		Cable Information							
Company	Part Number	Width	MAX Speed	Len (m)	AWG	Type	Equalization	Side A	Side B
Infraeo	A-200-OC-OC-030B	8x	800	3	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	A-100-OC-OC-040B	8x	800	4	25	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
Infraeo	P-100-QD-QD-020B	8x	800	2	26	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD
Infraeo	P-100-OC-2Q-020B	8x	800	2	25	DAC	Copper - Unequalized	OSFP-IHS-Open	QSFP112
Infraeo	O-100-O-2OR-050	8x	800	50	N/A	AOC	Fiber - Active	OSFP-IHS-Open	OSFP-RHS
Nvidia	980-9I30G-00NM00MMS4X00-NM	8x	800	500	N/A	AOC	Fiber - Active	OSFP-IHS-Open	OSFP-IHS-Open
Nvidia	980-9I510-00NS00MMA4Z00-NS	8x	800	50	N/A	AOC	Fiber - Active	OSFP-IHS-Open	OSFP-IHS-Open
Nvidia	980-9I693-F4NS00MMA1Z00-NS400-T	4x	400	50	N/A	AOC	Fiber - Active	QSFP112	QSFP112
Nvidia	980-9I51S-00NS00MMA4Z00-NS400	8x	400	5	N/A	Transceiver	Transceiver	OSFP-RHS	OSFP-RHS
Nvidia	MMS4X00-NS400	8x	400	100	N/A	Transceiver	Transceiver	OSFP-RHS	OSFP-RHS
Nvidia	MCA4K00	8x	1600	1.1	26	ACC	Copper - Linear Active	OSFP-RHS	OSFP-RHS
OPTOMIND Inc	T88D8EFN000DZZ	8x	800	500	N/A	Transceiver	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open
OPTOMIND Inc	T8E8NHFN100DZZ	8x	800	50	N/A	Transceiver	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open
OPTOMIND Inc	T4Y4N8GA000AZZ	4x	400	50	N/A	Transceiver	Transceiver	QSFP112	QSFP112
OPTOMIND Inc	T8E4NHFN000SZZ	4x	400	50	N/A	Transceiver	Transceiver	OSFP-RHS	OSFP-RHS
TE Connectivity	2490721-5	8x	800	1.2	30	DAC	Copper - Unequalized	QSFP-DD	QSFP-DD
TE Connectivity	2453447-7	8x	800	1	32	AEC	Copper - Full Active	QSFP-DD	QSFP-DD
TE Connectivity	2493882-2	8x	1600	1.5	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2493882-1	8x	1600	1	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2404508-2	8x	800	1.5	N/A	DAC	Copper - Unequalized	Hybrid - OSFP-QSFP-DD	Hybrid - OSFP-QSFP-DD
TE Connectivity	2448085-3	8x	800	2	27	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2448084-4	8x	800	2	28	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2476103-1	8x	800	1	32	AEC	Copper - Full Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	980-9IAL3-00X001	8x	1600	1	26	DAC	Copper - Unequalized	OSFP-IHS-Open	OSFP-IHS-Open



May 2025 IBTA Plugfest 42

VNA NDR Results

Active and Passive Cables



Company Info		Cable Information							
Company	Part Number	Width	MAX Speed	Len (m)	AWG	Type	Equalization	Side A	Side B
TE Connectivity	2485332-3	8x	1600	2	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2485332-4	8x	1600	2.5	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2485332-6	8x	1600	3.5	26	ACC	Copper - Linear Active	OSFP-IHS-Open	OSFP-IHS-Open
TE Connectivity	2420142-5	8x	800	10	N/A	AOC	Transceiver	OSFP-IHS-Closed	QSFP112
TE Connectivity	2409709-2	8x	800	1.5	28	DAC	Copper - Unequalized	QSFP-DD	QSFP112
TE Connectivity	2475571-4	8x	800	2	26	DAC	Copper - Unequalized	OSFP-IHS-Closed	QSFP112
The Siemon Company	F1F112E02.0-8ZB	8x	800	2	30	AEC	Copper - Full Active	OSFP-IHS-Open	OSFP-IHS-Open
The Siemon Company	F1F112E05.0-8ZB	8x	800	5	25	AEC	Copper - Full Active	OSFP-IHS-Open	OSFP-IHS-Open
The Siemon Company	Q1Q112P02.0-8ZB	4x	400	2	26	DAC	Copper - Unequalized	QSFP112	QSFP112
The Siemon Company	F1F112X10.0-3YQ	8x	800	10	N/A	Transceiver	Transceiver	OSFP-IHS-Open	OSFP-IHS-Open
The Siemon Company	D1D112X05.0-3VQ	8x	800	5	N/A	Transceiver	Transceiver	QSFP-DD	QSFP-DD
The Siemon Company	F2R112E04.0-8ZB	8x	800	4	25	AEC	Copper - Full Active	OSFP-IHS-Open	OSFP-RHS
The Siemon Company	D2Q112X05.0-3VQ	8x	800	5	N/A	Transceiver	Transceiver	QSFP-DD	QSFP112

InfiniBand Trade Association

Plugfest 42 Test Equipment Providers

The **IBTA** wishes to thank **Anritsu, Keysight, Software Forge** and **Wilder Technologies** for providing the following test equipment and software for the IBTA Plugfests. All this equipment is provided free of charge for the benefit of the InfiniBand community and the IBTA Plugfests would not be possible without this equipment.

Anritsu - Signal Quality Analyzer MP1900A

The MP1900A Signal Quality Analyzer is an expandable modular NRZ and PAM4 BERT supporting wideband bit rates from 2.4Gb/s to 128Gb/s for versatile signal integrity analysis applications. Supports IBTA and IEEE rates such as HDR (PAM4 26.56Gbaud x4), EDR (NRZ 25.78Gb/s x4). Supports all 200G/400G PAM4 and NRZ rates defined by IBTA, IEEE, OIF-CEI, Fiber Channel standards.

MP1900A System Features:

- Pulse Pattern Generator supports output of high-quality / low jitter NRZ and PAM4 waveforms. Integrated emphasis and flexible pattern generation for PAM4 applications.
- Error Detector with high input sensitivity and integrated clock recovery. Includes signal analysis tools such as Bathtub, Jitter Decomposition, and Eye Contour. Integrated real-time PAM4 decoding for BER/SER and powerful jitter tolerance applications.
- Integrated Jitter Modulation for SJ/RJ/BUJ/SSC generation and supporting Jitter Tolerance tests.
- Integrated Noise injection to address standards-based stressed signal requirements. (CM, DM, White)

IBTA Application:

- Supports HDR, EDR, FDR, QDR Active Cable Time Domain Testing (ATD).
- Multi-channel PPG to create victim and aggressor traffic.
- Jitter Modulation Source to inject jitter onto the victim channel to create stressed conditions.
- Multi-Channel error detection for BER analysis during stressed receiver testing.

MP1900A Literature: (hyperlink)

[Signal Quality Analyzer-R MP1900A - 32G/64G NRZ/PAM4 Signal Integrity Test Solution](#)

[Signal Quality Analyzer-R MP1900A - PCIe/USB/Thunderbolt Test Solutions](#)



Anritsu – MP2110A- BERTWave

The MP2110A BERTWave supports simultaneous 4 channel pattern generation and BER measurements with sampling scope eye pattern analysis for evaluating optical and electrical signals. Enhanced sampling scope measurements available with Jitter Analysis and PAM4 Analysis software.

IBTA Application:

- Aggressor traffic for HDR, EDR, FDR, QDR ATD Testing
- Simultaneous 4 channel BER measurements for EDR, FDR, QDR ATD Testing
- 40GHz BW Sampling Scope with Jitter Analysis and Precision Trigger
- Eye Mask functions for DUT measurements
- Jitter Decomposition (TJ, DJ, J2, J9, DDWPS) for DUT measurements

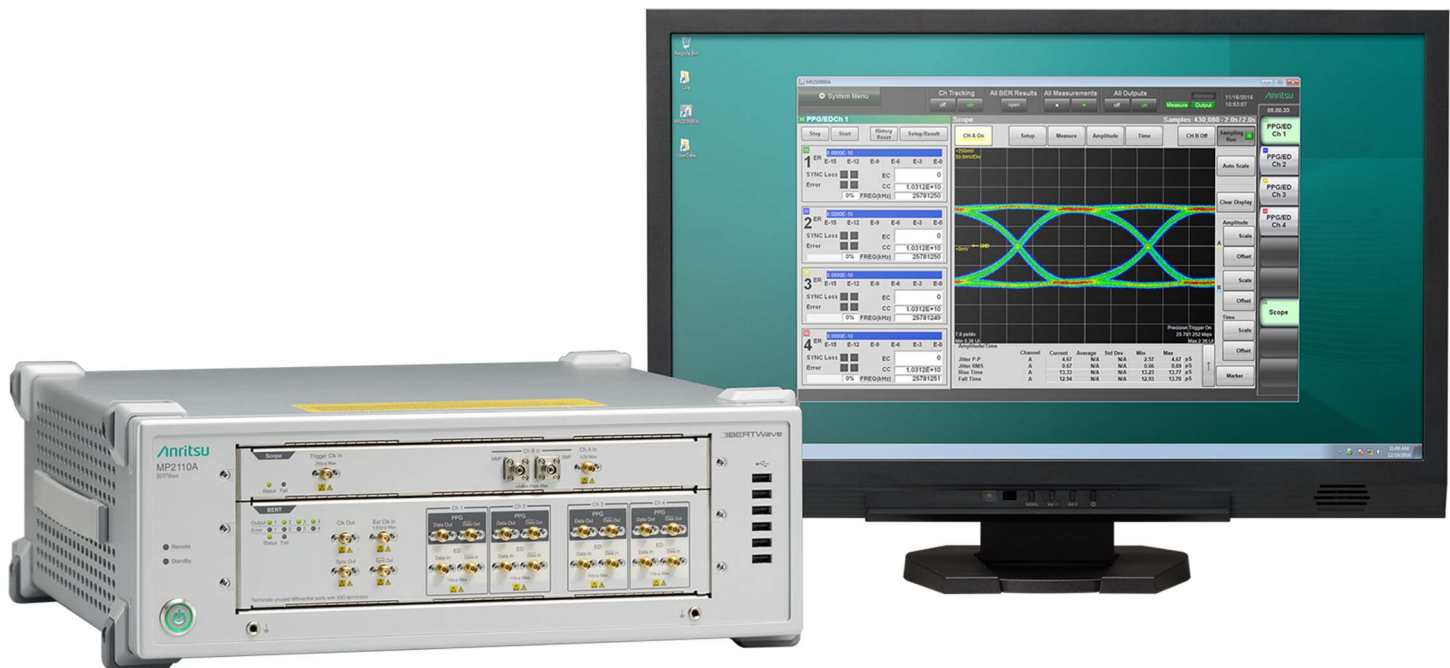
MP2110A - BERTWave Literature:



[View Product Brochure](#) **UPDATED**



[Video](#)



MP2110A Front View with External Monitor

Anritsu – MT1000A Network Master Pro

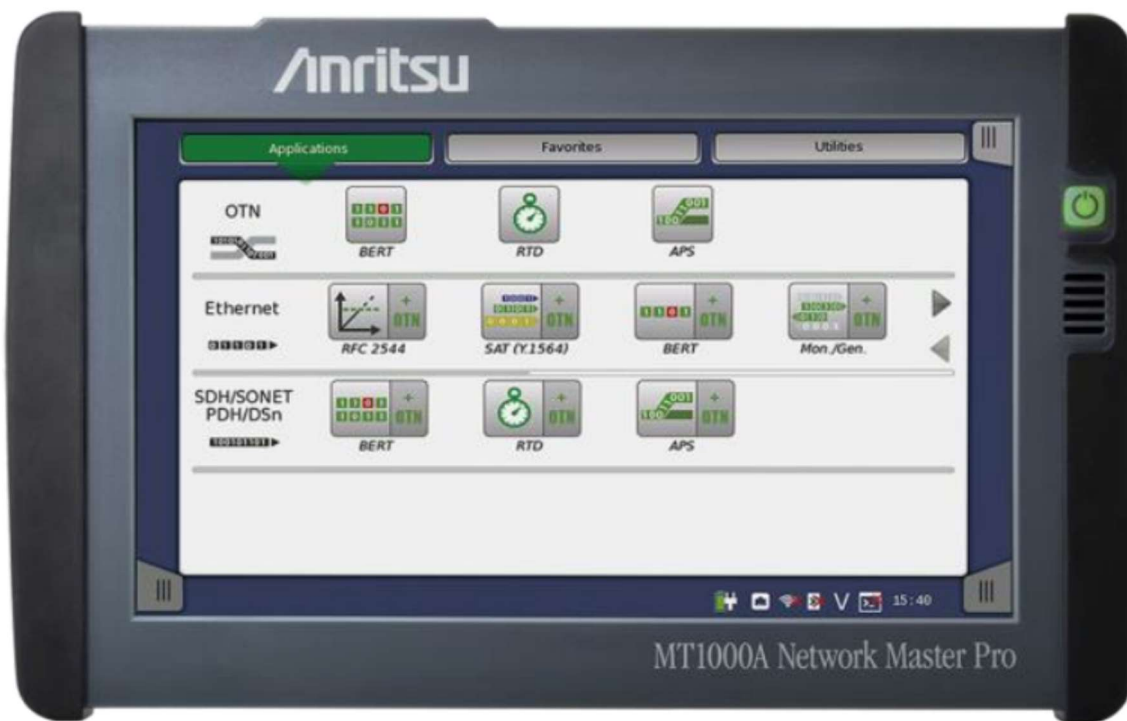
The MT1000A is an all-in-one portable tester with expandability and operability for speeds up to 100Gb/s. The compact, battery-powered and easy-to-use Anritsu MT1000A provides everything needed to install and maintain communication networks in a rugged, field portable package. This lightweight instrument simplifies the task of collecting and interpreting data with an easy-to-use GUI and clear summaries allowing users of any skill level to operate the instrument to its full potential. The MT1000A's installed MU100011A module provides the appropriate signal interfaces for testing performed at IBTA Plugfests.

IBTA Application:

- 4 Channel Pattern Generator provides required signal activity for DUTs measured on VNA Station.
- 4 Channel Pattern Generator can provide Aggressor traffic for EDR ATD Station.
- 4 Channel Error Detector can provide BER measurements for EDR ATD Station.
- ***Wilder HCB used for interconnect between QSFP28 and SMA.***

MT1000A Network Master Pro Literature:

1. <https://www.anritsu.com/en-us/test-measurement/products/mt1000a>
2. <https://www.anritsu.com/en-US/test-measurement/support/downloads/brochures-datasheets-and-catalogs/dwl010587>
3. <https://www.anritsu.com/en-US/test-measurement/support/downloads/brochures-datasheets-and-catalogs/dwl010570>



MT1000A Front View

Anritsu – MT1040A Network Master Pro

The MT1040A is an all-in-one portable tester with expandability and operability for speeds up to 400Gb/s. The compact, battery-powered and easy-to-use Anritsu MT1040A provides everything needed to install and maintain communication networks in a rugged, field portable package. This lightweight instrument simplifies the task of collecting and interpreting data with an easy-to-use GUI and clear summaries allowing users of any skill level to operate the instrument to its full potential. The MT1040A can support multiple ports of QSFP+, QSFP28, QSFP-DD and OSFP interfaces, depending on its transport module configuration (illustrated below). MT1040A mainframe will support up to 2 transport modules listed below (MU104014A / 15A / 11A)

IBTA Application:

- Dual channel 100G / 200G configurations can support EDR & HDR cable testing with FEC in a single mainframe.

MT1040A Network Master Pro Literature:

1. <https://www.anritsu.com/en-us/test-measurement/products/mt1040a>
2. <https://dl.cdn-anritsu.com/en-en/test-measurement/files/Brochures-Datasheets-Catalogs/Brochure/mt1040a-400g-brochure-e1101.pdf>
3. <https://dl.cdn-anritsu.com/en-en/test-measurement/files/Product-Introductions/Product-Introduction/mt1040a-400g-product-intro-el4101.pdf>



MT1040A Outline

MU104011A 100G



Test interface

100G/40G/25G/10G/1G/100M/10M 2port

MU104014A 400G (QSFP-DD)



Test Interface

200/ 400G 1port (QSFP-DD)
100G/40G/25G/10G/1G/100M/10M 2port

Keysight - Wide-Bandwidth Equivalent-Time (Sampling) Oscilloscope (DCA-X)

The Keysight N1000A/86100D DCA-X family of oscilloscopes, together with the N1060A Precision Waveform Analyzer (aka “MegaModule”) plug-in module, has been engineered to provide precision measurements on high-speed electrical communications systems and components:

- Fast and accurate jitter/eye/analysis of NRZ and PAM4 signals
- Bandwidth: 50 GHz / 85 GHz (95 GHz typ)
- Intrinsic random jitter (RJ): 50 fs rms (typ)
- Built-in clock recovery: 150 MBd to 64 GBd (continuous), with integrated EQ for “closed eye” analysis

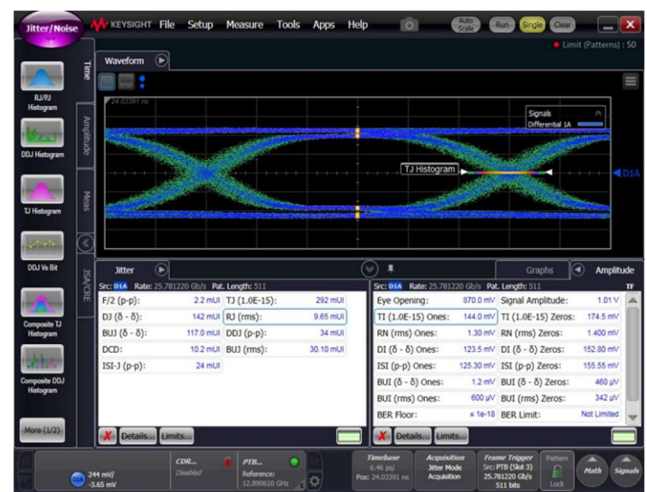
The N1060A provides accurate jitter analysis, eye diagram, and waveform characterization on InfiniBand (HDR, EDR, FDR, QDR ATD Testing), Ethernet, OIF-CEI, and Fibre Channel applications to 64 GBd.



N1000A_DCA-X_with_N1060A_module



Eye Mask, J2, J9, Time Domain



Eye Width & Height, Jitter Analysis

Links

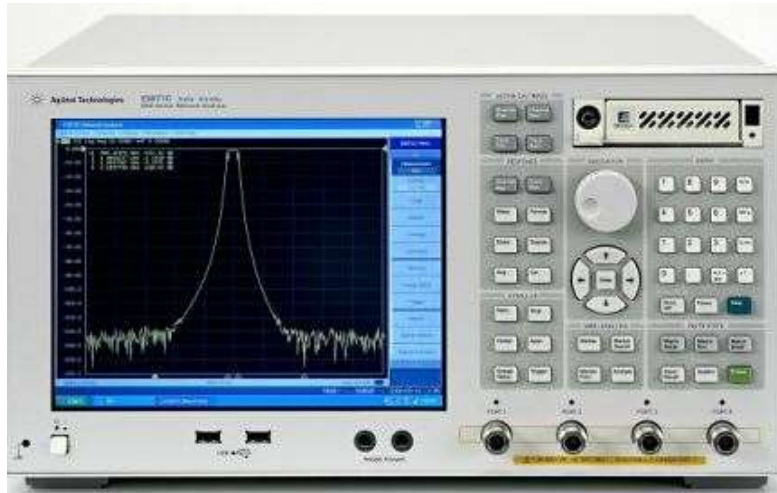
1. N1000A DCA-X Wide-Bandwidth Oscilloscope: [N1000A](#)
2. N1060A Precision Waveform Analyzer (“MegaModule”): [N1060A](#)
3. Software Compliance Applications for the DCA-X platform: [SW Apps](#)

IBTA Application: FDR/EDR/HDR/NDE HCA and Switch physical layer testing, and EDR/HDR/NDA Active Cable Time Domain testing.

Keysight - Network Analyzers

1) ENA used in FDR Cables testing

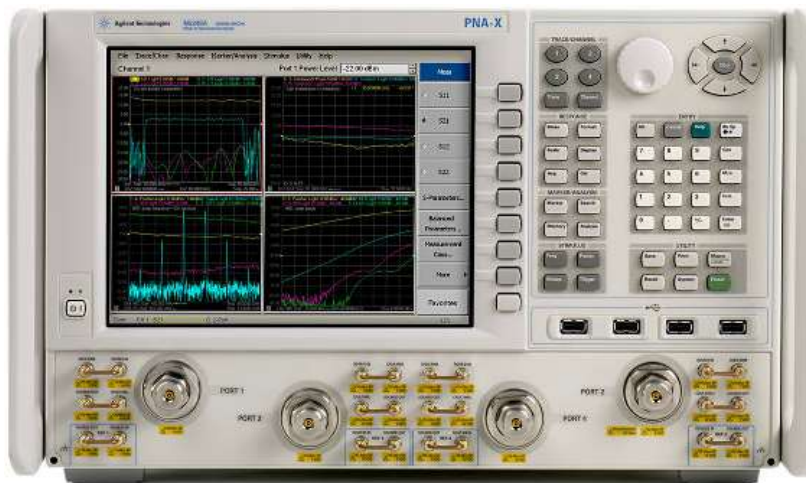
- [E5071C](#): 20 GHZ ENA Series Network Analyzer
- E5071C Data Sheet: <http://literature.cdn.keysight.com/litweb/pdf/5989-5479EN.pdf>



20 GHZ ENA Series Network Analyzer

2) N5244A PNA-X Microwave Network Analyzer used in EDR Cables testing

- [N5244A](#): 43.5 GHZ ENA Series Network Analyzer
- N5244A PNA-X Data Sheet: <http://literature.cdn.keysight.com/litweb/pdf/N5245-90008.pdf>

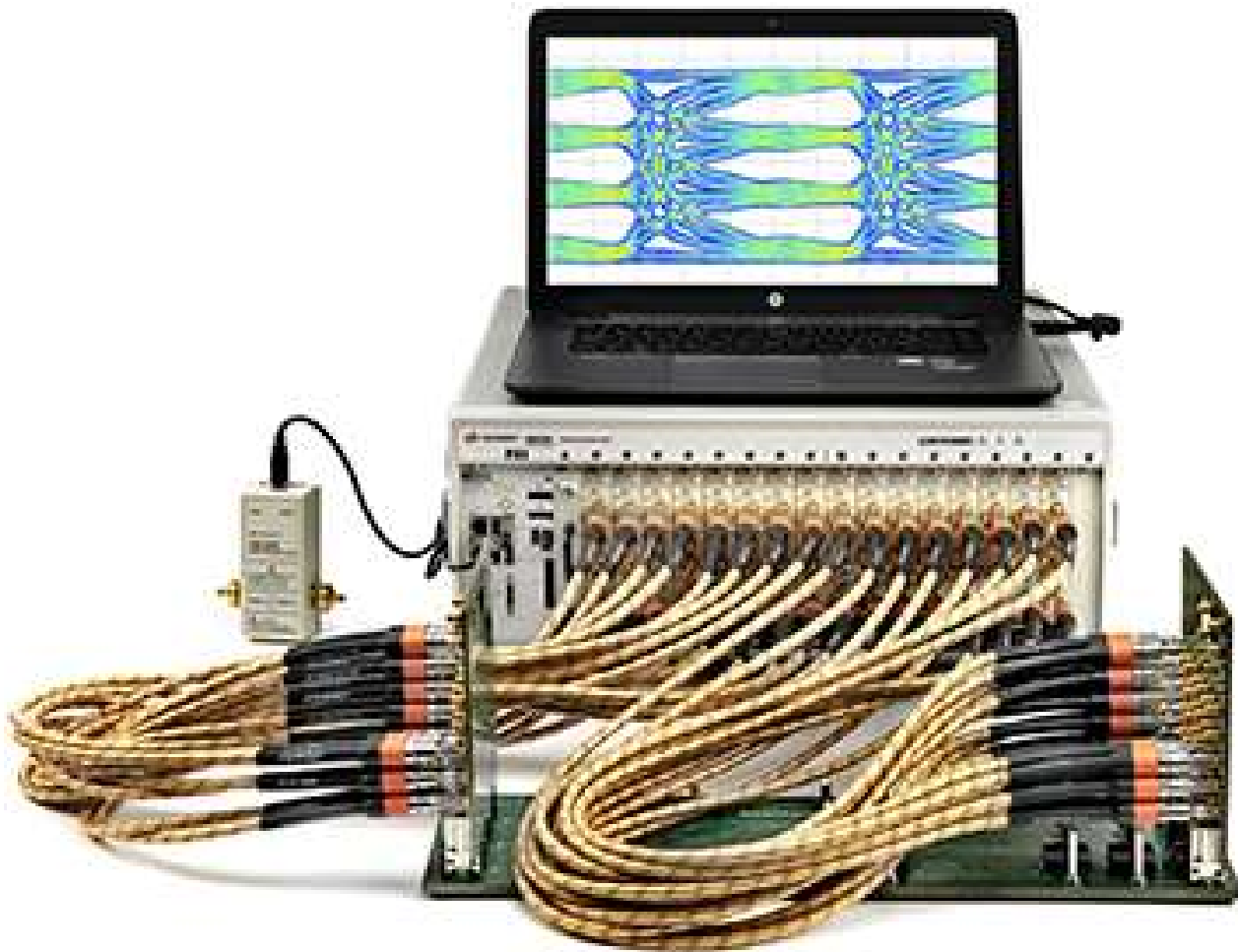


IBTA Application:

- FDR Device Physical Layer testing: SDDxx, SCCxx and SDCxx
- FDR and EDR Cable testing. ICN, ICMCN, SDDxx, SCCxx and SDCxx

3) 32 Port VNA used in FDR and EDR Cable testing since PF29

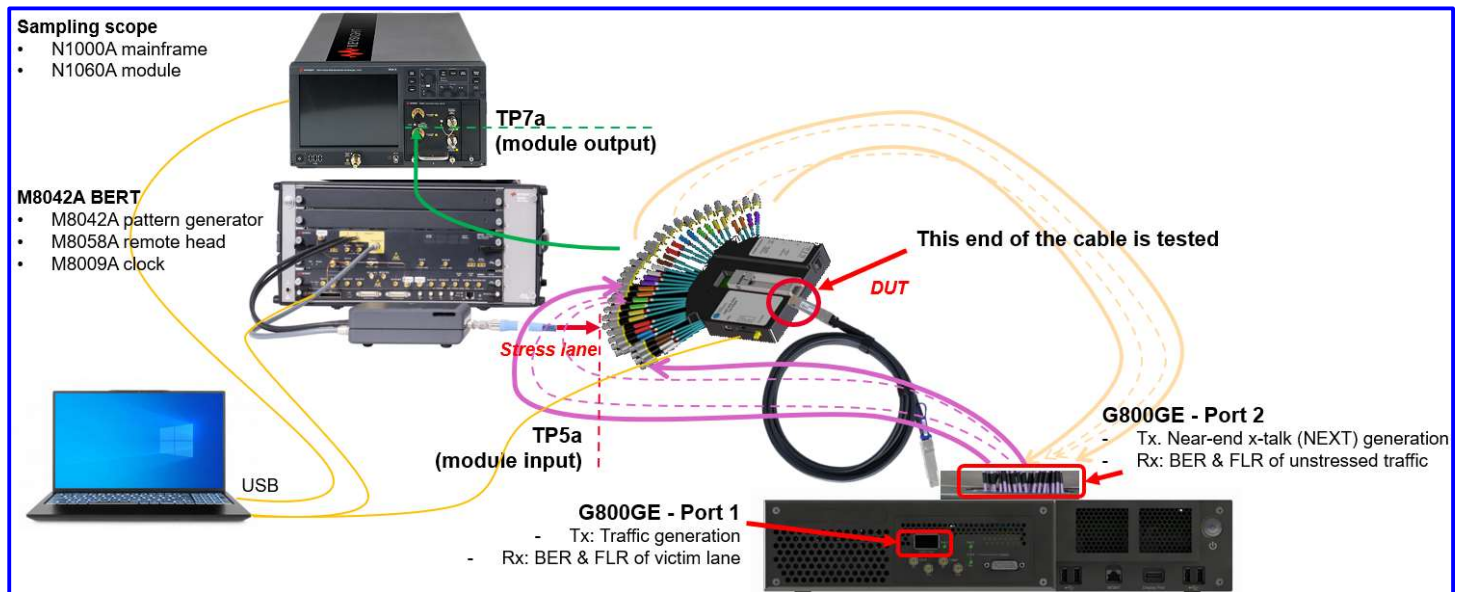
- a) [M9375A](#): PXIe Vector Network Analyzer
- b) [M9019A](#): M9019A PXIe Chassis
- c) PLTS: Physical Layer Test Suite – software to process s32p files



IBTA Application:

- FDR through NDR Cable testing. ICN, ICMCN, ILD, SDDxx, SCCxx and SDCxx

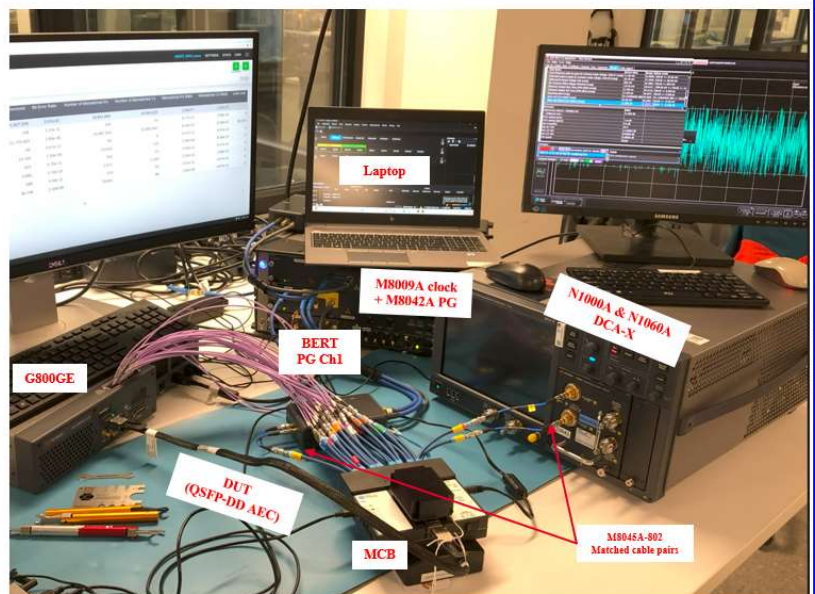
Keysight NDR Active Cable Test Platform



Setup Configuration

AEC Testing for TX and RX

- M8042A** for victim lane generation
- G800GE-02** as a reference host
 - Port 1 (QSFP-DD or OSFP): generate counter-propagating traffic
 - Port 1 BER/FLR measurement of all lanes (incl. victim lane)
 - Port 2 (coax) – generates co-propagating aggressor lanes
- N1000A + N1060A** as reference Receiver
 - Runs FlexDCA (firmware) and N1091CKCA app
- Wilder MCB** as Mated Test Fixture*
 - *Keysight part number SP0602A for OSFP or SP0606A for QSFP-DD 112G
- AEC Cable or AOC** - Device Under Test
- M8045A-801** Short Cable 1.85mm
- M8045A-802** Matched Cable Pairs
- Laptop**
 - M8070B (BERT firmware), Wilder CMIS, M8091CKA Rx app
 - FlexDCA (scope firmware) and N1091CKCA app (optional, can run on N1000A)
 - 5 USB ports for BERT, DCA, MCB, Mouse & keyboard



EQUIPMENT OVERVIEW (OPTIONS ON NEXT PAGES)



M8050A system

- M8042A pattern generator for victim lane generation



G800GE-02 system

- QSFP-DD + COAX interface **or**
- OSFP + COAX interface



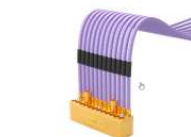
N1000A+N1060A

- Reference receiver for
 - Module output test
 - victim lane calibration
 - Near-end aggressor calibration



1x Wilder Technologies MCB

- 1x OSFP-TPA1.85-MCB-R **or**
- 1x QSFPDD-TPA1.85-MCB-R
 - OSFP, 1.85mm connector
 - CMIS control
 - Incl. power supply (16Watt)
 - Incl. FAN



1x Wilder Technologies HCB

- 1x OSFP-TPA1.85-HCB-P **or**
- 1x QSFPDD-TPA1.85-HCB-P
 - 1.85mm connector

Samtec "Bullseye" coaxial cable interface

- BE40A-S-24SP-2-2-160500



Cables & RF adapters

- 3 x 1.85mm Matched cable pairs

RECOMMENDED HW

Item #	Vendor	Part Number	Description	Options	Qty	Details
1	Keysight	M8040A	5 slot AXIe chassis	M8040A-BU2	1	Chassis
2	Keysight	M8042A	Pattern generator and clock module 64GBaud	M8042A-0G1/-G64/-0G1/-0G4 M8009A-061/-0G3	1	Signal source for pattern generator and jitter impairment
3	Keysight	M8058A	Remote head (1.85mm)		2	
4	Keysight	G800GE-02	941-0087 (QSFP+coax), 941-0089 (QDD+coax)	905-1102	1	Aggressor lane generation and BER/FLE measurement
5	Samtec	BE40A	50 GHz, Bulls Eye® High-Performance Test Assembly	BE40A-S-24SP-2-2-160500	1	Coax cable interface for port 2 of G800GE
6	Keysight	N1000A + N1060A	DCA-X Wide-Bandwidth Oscilloscope Mainframe + N1060A Precision Waveform Analyzer	N1000A-PLK/-STB N1060A-050/-EVA/-264/-PTB/-JSA	1 1	For TX test and stressed signal calibration
7	Wilder	DCOM-ISI-112G-9CH	Channel emulation board or any other ISI trace compliant with IEEE 802.3ck.	-	1	For C2M long channel calibration and testing – optional M8070ISIB SW can be used instead
8	Wilder	SP060x	SP0603A for OSFP or SP0607A for QSFP-DD 112G HCB Test Adapter	SP0603A/ SP0607A	1	For Crosstalk calibration (TX & RX Tests)
9	Wilder	SP060x	SP0602A for OSFP or SP0606A for QSFP-DD 112G MCB Test Adapter incl. fan to cool down the device	SP0602A/ SP0606A	2	Module Compliance Board for active cable testing
10	Keysight	M8045A-801	Short Cable 1.85 mm (m) to 1.85 mm (m), 0.15 m, absolute matching 699 ps +- 1 ps	-	4	2 for BERT Remote Heads; 2 for MTF to scope (2 from ISI Board to MCB)

See [Keysight InfiniBand ATD MOI for Active NDR Cables](#) for detailed setup Instructions

Keysight AresONE Test Equipment

Keysight AresONE supports Layer 1 to 3 testing from 10GE to 800GE on a single platform. It offers PAM4 and NRZ signaling, with 106.25 Gb/s host electrical lane signaling and can downshift to 53 Gb/s, 26 Gb/s, and 10 Gb/s for lower-speed Ethernet. The platform includes all necessary forward error correction (FEC) types and comprehensive performance statistics. The Keysight AresONE 800GE-4P-QDD-M includes a four-port, full-performance fixed chassis with built-in QSFP-DD800 800GE (PAM4) physical interfaces.



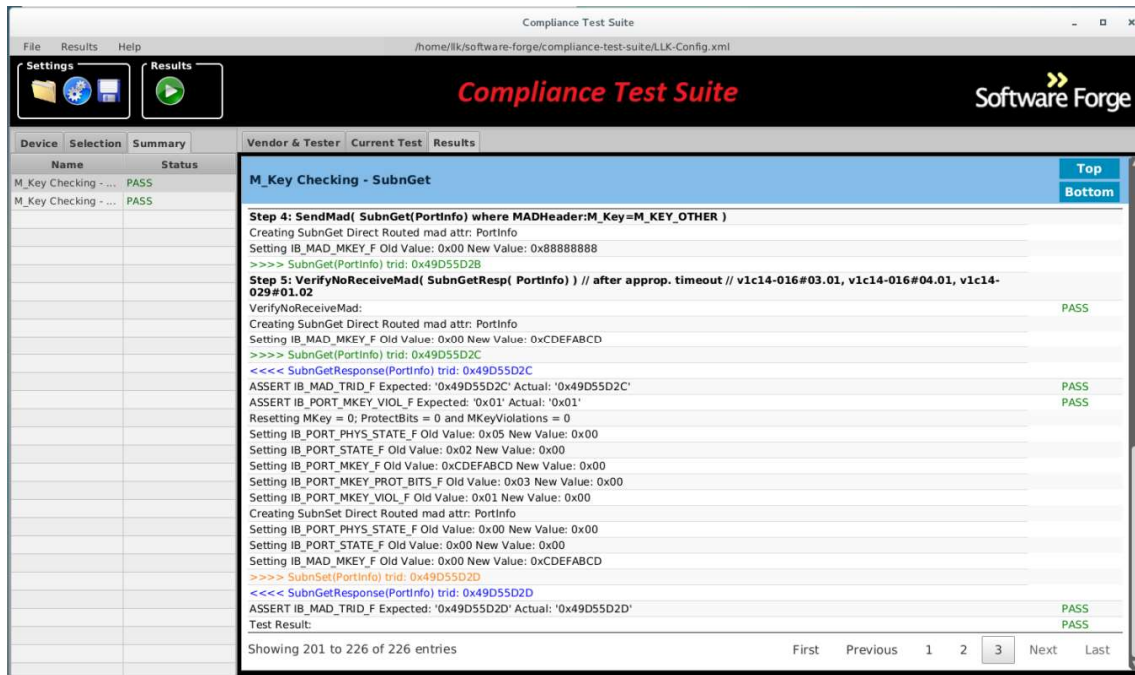
- 1) Improve interoperability, link stability, and robustness testing with Keysight-developed intellectual property for 800GE and 400GE. Key elements include MAC, PCS, FEC symbol error correction distribution, FEC error injection and statistics, and PAM4 Rx eye histogram analysis. You can do the following:
- 2) Achieve 6.4 Tbps of line-rate traffic per eight-port chassis with the option to synchronize multiple chassis to test 51.2 Tbps bandwidth and beyond switching platforms.
- 3) Leverage a 2 RU fixed-chassis form factor that optimizes power and cooling requirements, with support for optical transceivers that require up to 20 W per port.
- 4) Complete Layer 2 to 3 protocol emulation with the Keysight IxNetwork software, including the Keysight AI fabric test solution.
- 5) Get flexible reduced- and full-performance models with port and performance upgrade options to grow your system's capabilities as your requirements expand over time.
- 6) Experience seamless compatibility with the Ethernet Technology Consortium 800 Gigabit Ethernet (GbE) v1.1 and IEEE 802.3df 2024 specifications.

IBTA Usage

- 1) Traffic Generator in RoCE Interoperability Scenarios 9 and 10- Run at 800 Gbps
- 2) Used to conduct Rx Testing of Active Cables in the ATD Testing.

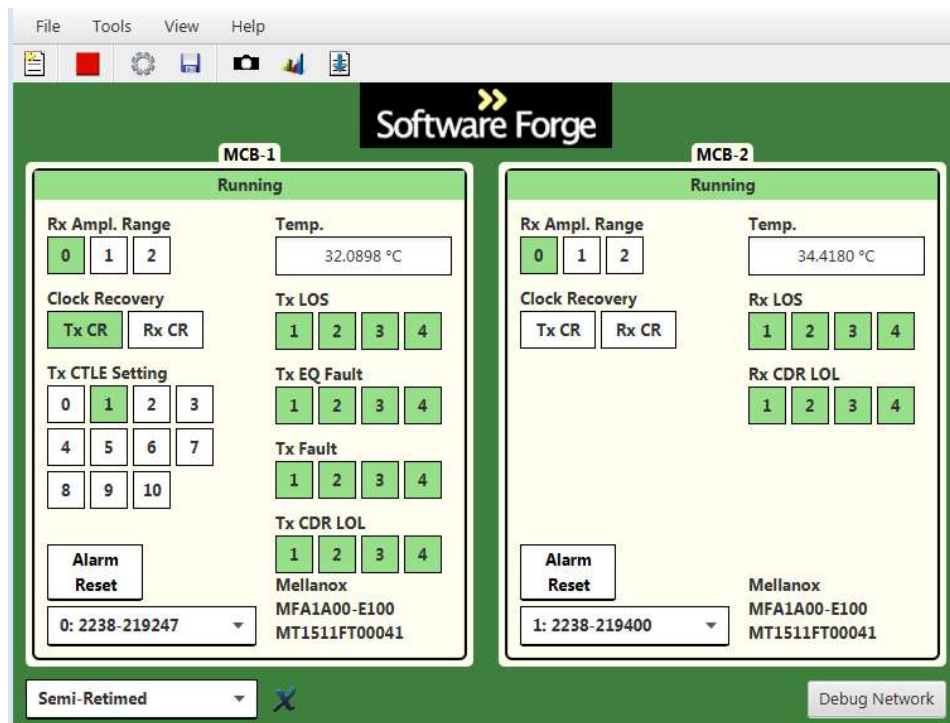
Software Forge – Compliance Test Suite (CTS)

The current version of CTS provides InfiniBand Protocol Layer testing. It is based on the Compliance and Interoperability Working Group InfiniBand Test Specification ([Volume 3](#)). This tool has replaced the old Agilent TCL test suite.



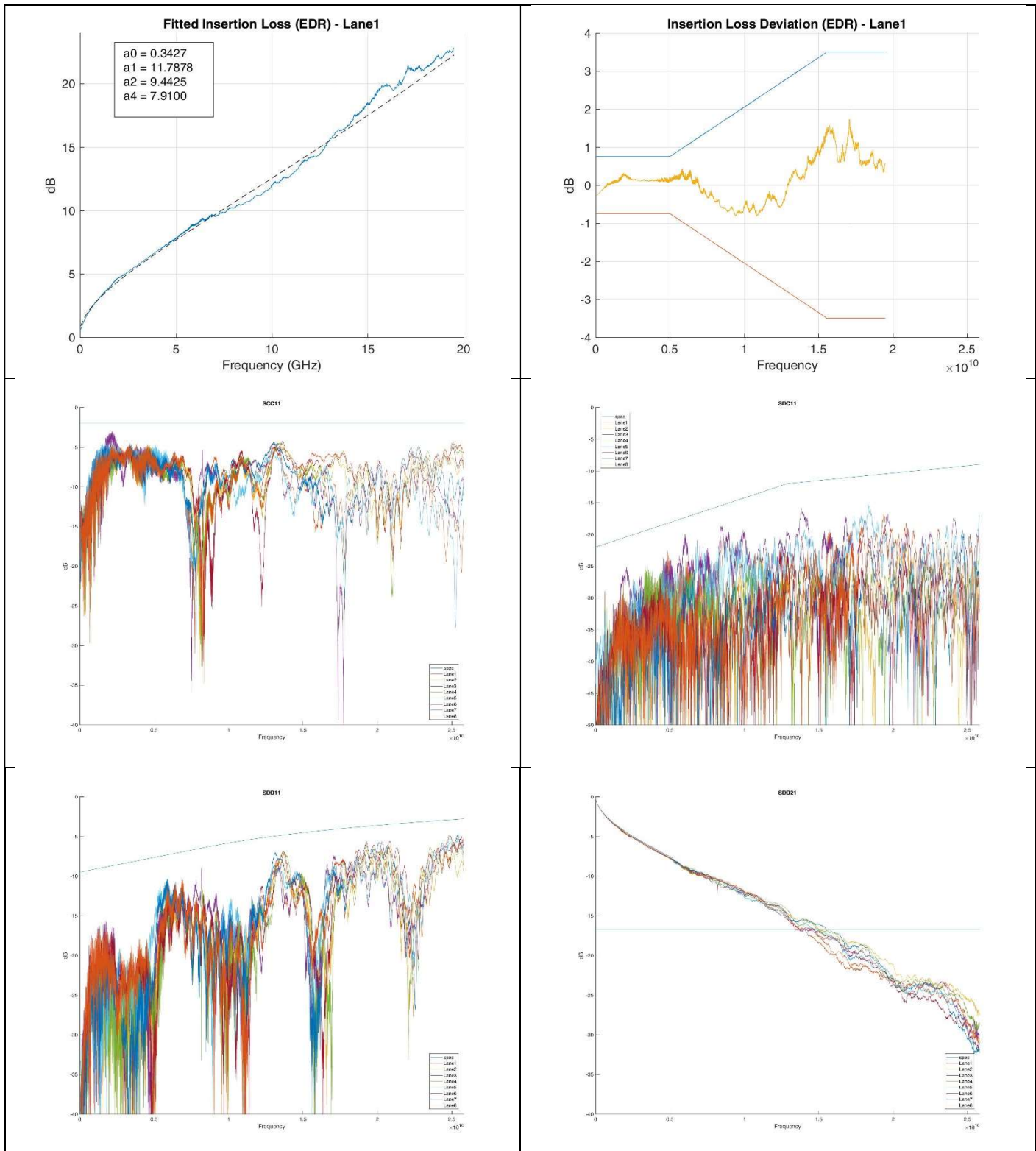
Software Forge – EEPROM Command Center (ECC)

The EEPROM Command Center is an application which enables the user to control and monitor the status of the QSFP memory maps. The user can write to writable fields of the QSFP memory map and easily export summaries of the results.



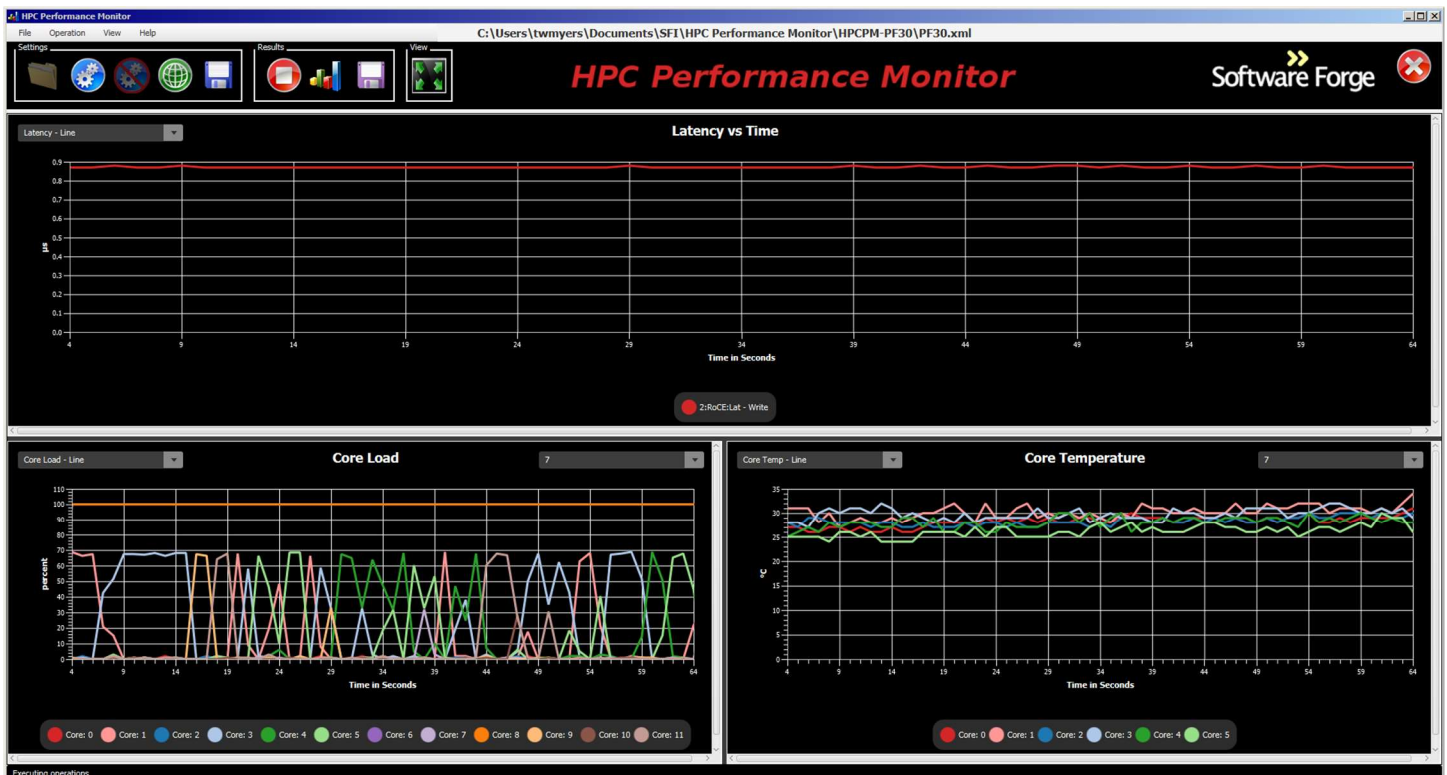
Software Forge – Vector Network Analyzer (VNA) MATLAB Application

This Application analyzes and processes the s32p VNA data so that the results are available immediately after the data is collected. This has helped reduce the data analysis time from months to minutes.



Software Forge – High Performance Computing – Performance Monitor ([HPC-PM](#))

The High Performance Computing – Performance Monitor (HPC-PM) measures network performance of RDMA and/or TCP connections. The tool can be used for network diagnostics as well as engineering.



Total Phase

I2C/SPI Host Adapter Test fixture

The Aardvark I2C/SPI Host Adapter is a fast and powerful I2C bus and SPI bus host adapter through USB. It allows a developer to interface a Windows, Linux, or Mac OS X PC via USB to a downstream embedded system environment and transfer serial messages using the I2C and SPI protocols.



<http://www.totalphase.com/products/aardvark-i2csbi/?gclid=ClzW2sDig8QCFWQV7Aod3RwAvA>

EEPROM Programming Kit

Total Phase has bundled together a complete set of development tools and accessories that allow developers to erase, program, and verify serial EEPROMs.



<http://www.totalphase.com/catalog/product/view/id/24/s/eeeprom-devkit/category/4/>

IBTA Application: Used to program EEPROM cable modules when doing ATD testing and in general for reprogramming EEPROMs as needed.

Wilder QSFP28/56 Test fixtures

<https://wilder-tech.com/products/datacomm/qsfp-28-56/?v=0b3b97fa6688>

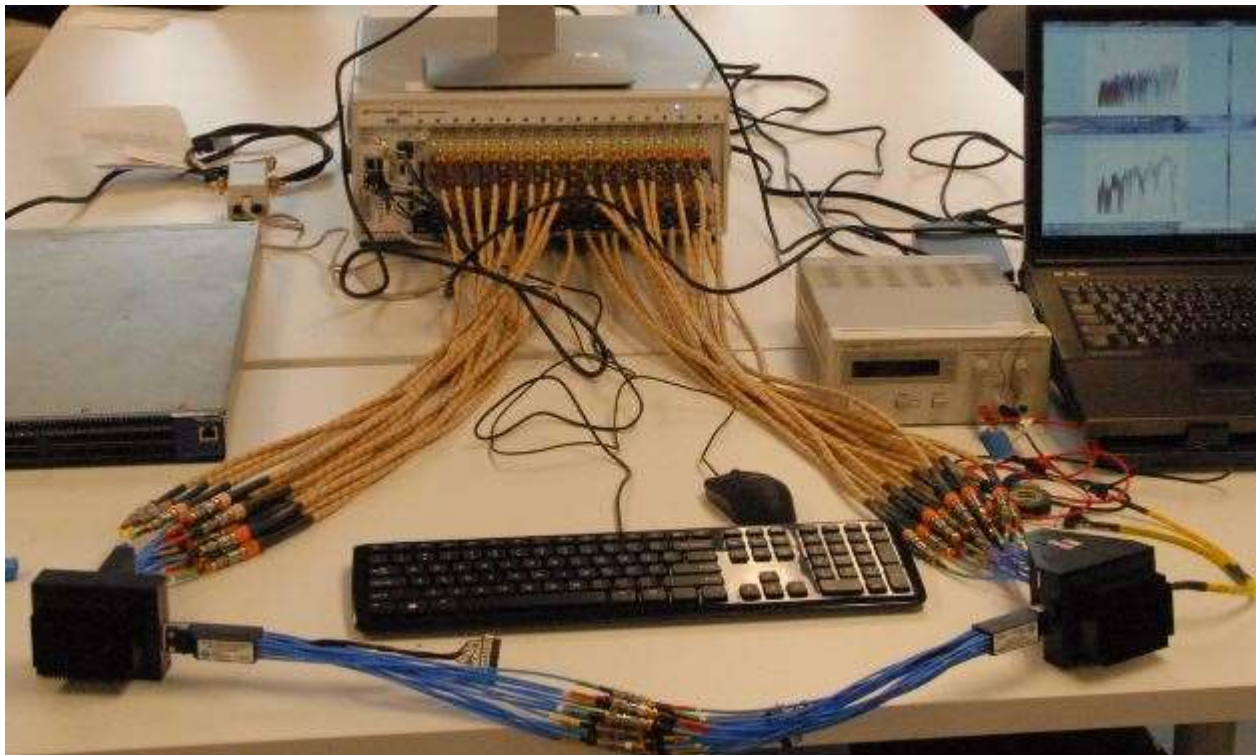
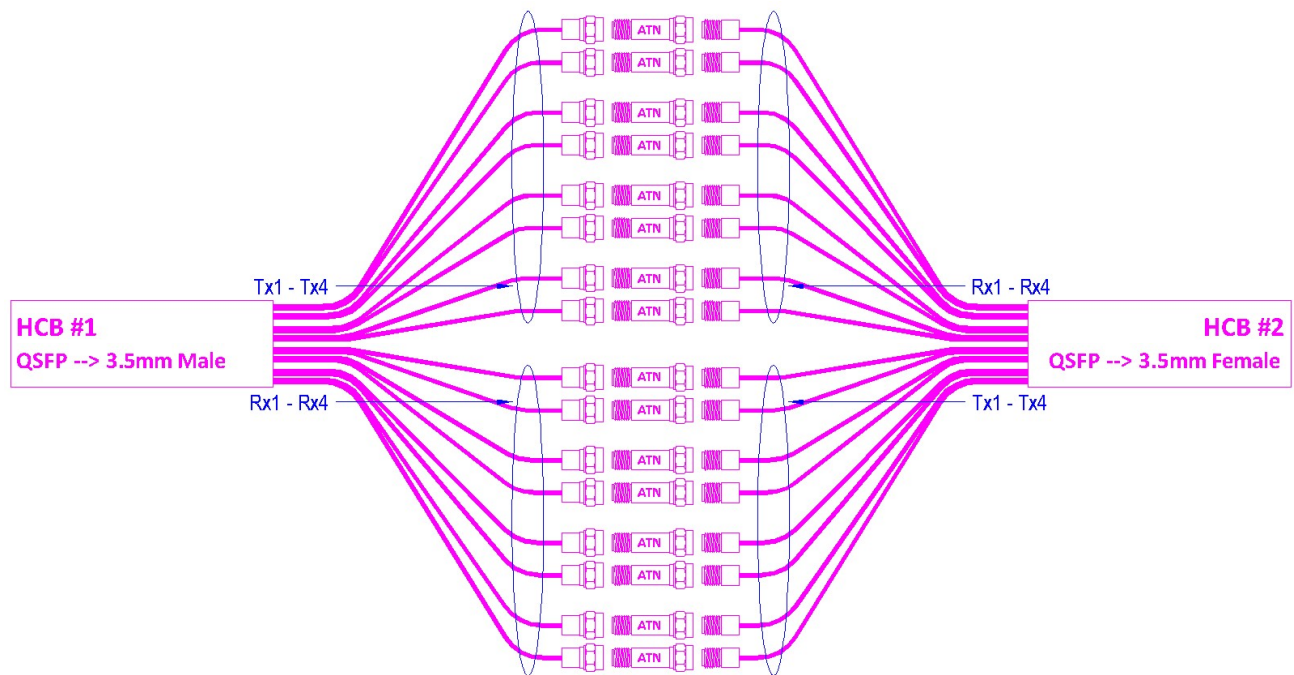


Wilder QSFP28/56 Module Compliance Board (MCB) / Host Compliance Board (HCB)

IBTA Applications:

- Wilder HCB
 - QDR, FDR, EDR and HDR device physical layer testing
 - QDR, FDR, EDR and HDR Active Cable Time Domain testing
- Wilder MCB
 - QDR, FDR, EDR and HDR Active Cable Time Domain testing
 - QDR, FDR, EDR and HDR VNA testing

Wilder Dual Headed HCBs for VNA MCB verification



IBTA Application:

- Wilder Dual HCBs with 10 dB Attenuators used for VNA fixture validation

Wilder SFP28/56 Test fixtures

<https://wilder-tech.com/products/datacomm/sfp-28-56/?v=0b3b97fa6688>



Wilder SFP28/56 Module Compliance Board (MCB) / Host Compliance Board (HCB)

IBTA Applications:

- Wilder HCB
 - Port type 2
 - QDR, FDR, EDR and HDR device physical layer testing
 - QDR, FDR, EDR and HDR Active Cable Time Domain testing
- Wilder MCB
 - Port type 2
 - QDR, FDR, EDR and HDR Active Cable Time Domain testing
 - QDR, FDR, EDR and HDR VNA testing

Wilder QSFP-DD 400G fixture:

<https://wilder-tech.com/products/datacomm/qsfpdd-112g/?v=0b3b97fa6688>



Wilder QSFP-DD 400G Module Compliance Board (MCB)



Wilder QSFP-DD 400G Host Compliance Board (HCB)

Wilder QSFP-DD 800G Test fixture

<https://wilder-tech.com/products/datacomm/qsfpdd-112g/?v=0b3b97fa6688>



Wilder QSFP-DD 800G Module Compliance Board (MCB) & Host Compliance Board (HCB)

Wilder OSFP 800G Test fixture:

<https://wilder-tech.com/products/datacomm/osfp-112g/?v=0b3b97fa6688>



Wilder OSFP 800G Module Compliance Board (MCB) & Host Compliance Board (HCB)

Wilder OSFP 1.6T Test fixture

<https://wilder-tech.com/products/datacomm/osfp-224g/?v=0b3b97fa6688>

Available Configurations: IHS – Integrated Heat Sink, RHS – Riding Heat Sink



Wilder OSFP 1.6T Host Compliance Board (HCB)



Wilder OSFP 1.6T Module Compliance Board (MCB)

Power & variable speed cooling supports 43W

Wilder ISI 112G Channel Board

<https://wilder-tech.com/products/datacomm/isi-112g/?v=0b3b97fa6688>



Wilder 112G ISI Channel Board

Wilder ISI 224G Channel Board

<https://wilder-tech.com/products/datacomm/isi-224g/?v=0b3b97fa6688>



Wilder 224G ISI Channel Board

Physical layer Test Equipment Methods of Implementation ([MOI](#))

IBTA Active Time Domain (ATD) Testing for Cables

- [Anritsu ATD MOI for Active FDR Cables](#)
- [Anritsu Keysight ATD MOI for Active EDR Cables](#)
- [Anritsu Keysight ATD MOI for Active HDR Cables](#)
- [Keysight InfiniBand ATD MOI for Active NDR Cables](#)

IBTA VNA Testing for FDR and EDR Cables

- [Keysight 4 Port VNA Testing](#)
- [Keysight 32 Port VNA Testing](#)

IBTA Testing for FDR Devices (HCAs and Switches)

- [Agilent Transmitter MOI](#)
- [Agilent-Anritsu Receiver MOI](#)

Protocol Layer Test Equipment used in the IBTA Plugfests

InfiniBand Protocol Analyzers

- LeCroy IBTracer 4x
 - <http://www.lecroy.com/protocolanalyzer/protocoloverview.aspx?seriesid=128>
- NVIDIA ibdump used with Wireshark
 - http://www.mellanox.com/page/products_dyn?product_family=110&mtag=monitoring_debug
- Wireshark Network Analyzer
 - <https://www.wireshark.org/download.html>

Software Tools to test Systems and interconnects

- Software Forge [EEPROM Memory Map](#) test suite
- Software Forge [Cable Interoperability](#) test suite
- Software Forge [Compliance Test Suite \(CTS\)](#)
 - a) IB Protocol Layer Tester
 - b) RoCE Transport Tester

Compliance & Interoperability Testing - IBTA Integrators List

- <https://www.infinibandta.org/integrators-list/>
- This site includes a list of all the devices and cables that have passed both the Physical and Protocol Layer testing from June 2003 through May 2025.

Information about the InfiniBand Trade Association ([IBTA](https://www.infinibandta.org/))

- **Main IBTA Website Link:**
 - <http://www.infinibandta.org/>
- **Membership Link:**
 - <https://www.infinibandta.org/membership/>
 - <https://www.infinibandta.org/about-the-ibta/>
- **Presentations, Events and Information:**
 - <https://www.infinibandta.org/press-room/>
- **IBTA Specifications:**
 - <https://www.infinibandta.org/ibta-specification/>
 - Volume 1 – this is the protocol layer spec that covers from Layer 3 and up.
 - Volume 2 – this is the physical layer spec that covers Layers 1-2.
 - Volume 3 – this is the test specification. There are many more test documents that are only available to the Compliance and Interoperability Working Group Members (CIWG)
- **IBTA Working Groups**
 - <https://cw.infinibandta.org/workgroup/index>
 - Compliance and Interoperability Working Group
 - ElectroMechanical Working Group
 - Link Working Group
 - Management Working Group
 - Marketing Working Group
 - Software Working Group
 - Steering Committee
 - Technical Working Group
- **IBTA Roadmap:**
 - <https://www.infinibandta.org/infiniband-roadmap/>
- **IBTA Integrators' List Program:** (some links require membership)
 - Integrators' List
 - <https://www.infinibandta.org/integrators-list/>
 - IL Policy
 - <https://cw.infinibandta.org/wg/CIWG/document/8298>
 - Plugfest Information:
 - <https://www.infinibandta.org/plugfest/>
- **Test Methods of Implementation**
 - <https://www.infinibandta.org/methods-of-implementation/>