

InfiniBand Trade Association RoCE Compliance List



October 2018





IBTA RoCE Compliance List October 2018



Manufacturer	Product Description	Model	FW	SW	Transport	DCB
	P150p NetXtreme-E Single-port 40Gb/50Gb Ethernet PCIe Adapter	BCM957414A4140	212.1	OFED 4.17 RC 1	✓	✓
Broadcom	NetXtreme-E Dual-port 25G RDMA Ethernet PCIe Adapter	BCM957414A4141	212.1	OFED 4.17 RC 1	✓	✓
Broaucom	P1110p NetXtreme-E Single-port 50Gb/100Gb Ethernet PCle Adapter	BCM957454A4540	212.1	OFED 4.17 RC 1	✓	✓
	Stingray PS225 Dual-port 25Gb Ethernet SmartNIC PCIe Adapter	BCM958802A8024	214.0	OFED 4.17 RC 1	√	✓

		Model	BCM957414A4140	BCM957414A4141	BCM957454A4540	BCM958802A8024
	Broadcom RoCE RNICs	Date	2018-10-19-01	2018-10-19-01	2018-12-13-01	2018-10-23-01
	DIOducoili Noce Nivics	Firmware Version	212.1.104.0	212.1.104.0	212.1.104.0	214.0.153.0
		Overall Results	Pass	Pass	Pass	Pass
Test Class	Name	Number	Results	Results	Results	Results
	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
Transport	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
Layer	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	N/A	N/A	N/A	N/A
	Completion Rules - Atomic FethcAdd Case (inverted)	C09_060_07_01	Pass	Pass	Pass	Pass
	Completion Rules - Atomic CompSwap Case	C09_060_09	N/A	N/A	N/A	N/A
	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
DCB	IEEE 802.1Q	36.2.2#1	Pass	Pass	Pass	Pass



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Manufacturer	Product Description	Model	FW	SW	Transport	DCB
	Low Profile Dual-Port SFP28 25GbE Ethernet PCIe Adapter	QL45212	8.35.41.0	OFED 4.17 RC 1	✓	✓
	Low Profile Dual-Port QSFP+ 40GbE Ethernet PCIe Adapter	QL45412	8.35.41.0	OFED 4.17 RC 1	✓	✓
Marvell	Low Profile Single-Port QSFP28 100GbE Ethernet PCle Adapter	QL45611	8.35.41.0	OFED 4.17 RC 1	✓	✓
	Low Profile Dual-Port SFP28 25GbE Ethernet PCIe Adapter	QL41212	8.35.41.0	OFED 4.17 RC 1	✓	✓
	Low Profile Quad-Port SFP28 25GbE Ethernet PCle Adapter	QL41234	8.35.41.0	OFED 4.17 RC 1	✓	✓

		Model	QL41212	QL41234	QL45212	QL45412	QL45611
	Marvell RoCE RNICs	Date	2018-11-21-01	2018-11-21-01	2018-11-21-01	2018-11-21-01	2018-11-21-01
	IVIAI VEII ROCE RIVICS	Firmware Version	08.37.2.0	08.37.2.0	08.37.2.0	08.37.2.0	08.37.2.0
		Overall Results	Pass	Pass	Pass	Pass	Pass
Test Class	Name	Number	Results	Results	Results	Results	Results
	RC RDMA Send Only after RDMA Read	C09_027_01	Pass	Pass	Pass	Pass	Pass
	RC RDMA Write Only after RDMA Read	C09_027_02	Pass	Pass	Pass	Pass	Pass
	RC RDMARead Only after RDMA Read	C09_027_03	Pass	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after RDMA Read	C09_027_04	Pass	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after RDMA Read	C09_027_05	Pass	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after Atomic CompSwap	C09_027_06	Pass	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after Atomic CompSwap	C09_027_07	Pass	Pass	Pass	Pass	Pass
	RC Atomic FetchAdd after Atomic FetchAdd	C09_027_08	Pass	Pass	Pass	Pass	Pass
	RC Atomic CompSwap after Atomic FetchAdd	C09_027_09	Pass	Pass	Pass	Pass	Pass
	RC RDMA Send Only after Atomic CompSwap	C09_027_10	Pass	Pass	Pass	Pass	Pass
	RC RDMA Write Only after Atomic CompSwap	C09_027_11	Pass	Pass	Pass	Pass	Pass
Transport	RC RDMA Send Only after Atomic FetchAdd	C09_027_12	Pass	Pass	Pass	Pass	Pass
_	RC RDMA Write Only after Atomic Fetch Add	C09_027_13	Pass	Pass	Pass	Pass	Pass
Layer	Completion Rules - RC RDMA Send Case	C09_060_01	Pass	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Send Case (inverted)	C09_060_01_01	Pass	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Write Case	C09_060_03	Pass	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Write Case (inverted)	C09_060_03_01	Pass	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Read Case	C09_060_05	Pass	Pass	Pass	Pass	Pass
	Completion Rules - RC RDMA Read Case (inverted)	C09_060_05_01	Pass	Pass	Pass	Pass	Pass
	Completion Rules - Atomic FetchAdd Case	C09_060_07	N/A	N/A	N/A	N/A	N/A
	Completion Rules - Atomic FethcAdd Case (inverted)	C09_060_07_01	Pass	Pass	Pass	Pass	Pass
	Completion Rules - Atomic CompSwap Case	C09_060_09	N/A	N/A	N/A	N/A	N/A
	Completion Rules - Atomic CompSwap Case (inverted)	C09_060_09_01	Pass	Pass	Pass	Pass	Pass
	Requester/Responder RNR NAK Behavior	C09_130_01	Pass	Pass	Pass	Pass	Pass
	Outstanding Request Timeout	C09_142_01	Pass	Pass	Pass	Pass	Pass
DCB	IEEE 802.1Q	36.2.2#1	Pass	Pass	Pass	Pass	Pass



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Manufacturer	Product Description	Model	FW	SW	Transport	DCB
	ConnectX®-3 Pro EN Dual-Port SFP+ 10GbE Ethernet PCle Adapter	MCX312B-XCCT	2.42.5000	MLNX_OFED 4.4-2.0.7.0	✓	✓
Mellanox	ConnectX®-4 EN Dual-Port QSFP28 40GbE Ethernet PCIe Adapter	MCX416A-BCAT	12.23.1020	MLNX_OFED 4.4-2.0.7.0	✓	✓
IVICIIAIIOX	ConnectX®-4 Lx EN Dual-Port SFP28 25GbE Ethernet PCIe Adapter	MCX4121A-ACAT	14.23.1020	MLNX_OFED 4.4-2.0.7.0	✓	✓
	ConnectX®-5 EN Dual-Port QSFP28 100GbE Ethernet PCIe Adapter	MCX516A-CCAT	16.23.1020	MLNX_OFED 4.4-2.0.7.0	✓	✓

		Model	MCX312B-XCCT	MCX4121A-ACAT	MCX416A-BCAT	MCX516A-CCAT
	Mellanox RoCE RNICs	Date	2018-12-20-01	2018-12-19-01	2018-12-19-01	2018-12-18-01
	MENATION ROCE RIVICS	Firmware Version	2.42.5000	14.23.1020	12.23.1020	16.23.1020
		Overall Results	Pass	Pass	Pass	Pass
Test Class	Name	Number	Results	Results	Results	Results
	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
Transport	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
Layer	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	N/A	N/A	N/A	N/A
	Completion Rules - Atomic FethcAdd Case (inverted)	C09_060_07_01	Pass	Pass	Pass	Pass
	Completion Rules - Atomic CompSwap Case	C09_060_09	N/A	N/A	N/A	N/A
	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
DCB	IEEE 802.1Q	36.2.2#1	Pass	Pass	Pass	Pass



IBTA RoCE Interoperabilty List October 2018



Manufacturer	Description	Model	Type	Speed	FW	SW
Broadcom	P150p NetXtreme-E Single-Port QSFP28	BCM957454A4540	RNIC	100 GbE	212.1.104.0	OFED 4.17 RC1
Broadcom	P1110p NetXtreme-E Dual-Port QSFP28	BCM957414A4140	RNIC	50 GbE	212.1.104.0	OFED 4.17 RC1
Broadcom	Stingray PS225 Dual-Port SFP28	BCM958802A8024	RNIC	25 GbE	212.1.104.0	OFED 4.17 RC1
Broadcom	NetXtreme-E Dual-Port SFP28	BCM957414A4141	RNIC	25 GbE	212.1.104.0	OFED 4.17 RC1
Marvell	FastLinQ Single-Port QSFP28	QL45611HL	RNIC	100 GbE	8.37.2.0	OFED 4.17 RC1
Marvell	FastLinQ Dual-Port QSFP+	QL45412HL	RNIC	40 GbE	8.37.2.0	OFED 4.17 RC1
Marvell	FastLinQ Dual-Port SFP28	QL45212HL	RNIC	25 GbE	8.37.2.0	OFED 4.17 RC1
Marvell	FastLinQ Dual-Port SFP28	QL41212HL	RNIC	25 GbE	8.37.2.0	OFED 4.17 RC1
Marvell	FastLinQ Quad-Port SFP28	QL41234HL	RNIC	25 GbE	8.37.2.0	OFED 4.17 RC1
Mellanox	ConnectX®-5 EN Dual-Port QSFP28	MCX516A-CCAT	RNIC	100 GbE	16.23.1020	MLNX OFED 4.4-2.0.7.0
Mellanox	ConnectX®-4 EN Dual-Port QSFP+	MCX416A-BCAT	RNIC	40 GbE	12.23.1020	MLNX OFED 4.4-2.0.7.0
Mellanox	ConnectX®-4 Lx EN Dual-Port SFP28	MCX4121A-ACAT	RNIC	25 GbE	14.23.1020	MLNX OFED 4.4-2.0.7.0
Mellanox	ConnectX®-3 Pro EN Dual-Port SFP+	MCX312B-XCCT	RNIC	10 GbE	2.42.5000	MLNX OFED 4.4-2.0.7.0
Mellanox	SwitchX®-2 InfiniBand to Ethernet gateway, 36 QSFP+ ports	MSX6036G-2SFS	Switch	40 GbE	9.4.5070	MLNX OS 3.6.6003
Mellanox	48 SFP28 ports, 8 QSFP28 ports, Supports 10 to 100GbE	MSN2410-CB2F	Switch	100 GbE	13.1702.0012	Onyx 3.6.6102

Software	Versions	Performance	Software					
Operating System	Cent OS 7.5.1804	HPC-Performance Monitor	HPC-PM-2.0.80					
OFED	OFED 4.17 RC1	Perftest (OFED)	4.4-0.3.g7a8e409					
Mellanox OFED	MLNX OFED 4.4-2.0.7.0							
Open MPII	Open MPI 3.1.2	Benchmarks Performed						
Benchmark	Intel MPI Benchmarks	PingPong	Gather					
Test Plan	Software Forge RoCE Interoperability MOI	PingPing	Gatherv					
Duration	3-10 minutes	Sendrecv	Scatter					
		Exchange	Scatterv					
Co	nditions for Passing Interoperability Testing	Allreduce	Alltoall					
Link Width	Link width is @ expected width - i.e. 1x,4x, etc	Reduce	Alltoallv					
Link Speed	Link speed is @ expected speed - e.g. 100 GbE	Reduce_scatter	Bcast					
Errors	There must be no errors recorded during any test phases	Allgather	Barrier					
MPI Test	The MPI Benchmark must run to completion	Allgatherv						



IBTA PF34 RoCE Interoperability 100 Gigabit Ethernet

Scenario 01



Company	Length	AWG	Equalization	Connector	Marvell	Cable Under	Mellanox	Broadcom	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R			100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56		LA0QF123-SD-R	MSN24	C)	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	P	LA0QF105-SD-R	ž	19!	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28		PCRQQ1904-SD-R/A891A002	241	57.	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	4561	PCRQQ1904-SD-R/A891A003	0-1	54	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	<u> </u>	MCP1650-H00AE30	СВ	À	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30	B2F	540	100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30		0	100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Marvell QL45611 to Mellanox MSN2410 Switch to Broadcom BCM957454A4540







Company	Length	AWG	Equalization	Connector	Marvell	Cable Under	Mellanox	Mellanox	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		•	Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R	< <	≥	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	0	LA0QF123-SD-R	MSN2410	MCX516A-	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	QL4561	LA0QF105-SD-R	124	9	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	55	PCRQQ1904-SD-R/A891A002	110	6 A	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	33	PCRQQ1904-SD-R/A891A003	<u>6</u>	င်င	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56		MCP1650-H00AE30	:B2F	CAT	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30	П	4	100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Marvell QL45611 to Mellanox MSN2410 Switch to Mellanox MCX516A







Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Mellanox	Mellanox	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			100	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05		_	100	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28	BCM95	FPD-208R008-A0	MSN2410-CB2F	MC	100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	9	LA0QF122-SD-R	ž.	X	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	574	LA0QF123-SD-R	241	16	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	5	LA0QF105-SD-R	1-0	Ą	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	À	PCRQQ1904-SD-R/A891A002	CB	CC	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	540	PCRQQ1904-SD-R/A891A003	2F	MCX516A-CCAT	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	0	MCP1650-H00AE30			100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30			100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3	1		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Broadcom BCM957454A4540 to Mellanox MSN2410 Switch to Mellanox MCX516A







Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Mellanox	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		-	Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			100	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05			100	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28	ВСМ9	FPD-208R008-A0	NS		100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	/195	LA0QF122-SD-R	MSN2410-CB2F	Q	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	574	LA0QF123-SD-R	241	QL45611	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	54	LA0QF105-SD-R	-0	561	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	A4	PCRQQ1904-SD-R/A891A002	В	14	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	.540	PCRQQ1904-SD-R/A891A003	2F		100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	0	MCP1650-H00AE30			100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30			100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Broadcom BCM957454A4540 to Mellanox MSN2410 Switch to Marvell QL45611





IBTA PF34 RoCE Interoperability 100 Gigabit Ethernet

Scenario 05



Company	Length	AWG	Equalization	Connector	Mellanox	Cable Under	Mellanox	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		·	Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56	MCX516A	CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			100	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05			100	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28		FPD-208R008-A0	< <		100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R	MSN2410-CB2F		100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	6	LA0QF123-SD-R	124	Б	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	6 A	LA0QF105-SD-R	110	45	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	'n	PCRQQ1904-SD-R/A891A002	6	.45611	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	CAT	PCRQQ1904-SD-R/A891A003	B2		100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	4	MCP1650-H00AE30	П		100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30			100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Mellanox MCX516A to Mellanox MSN2700 Switch to Marvell QL45611





100 Gigabit Ethernet Scenario 06



Company	Length	AWG	Equalization	Connector	Mellanox	Cable Under	Mellanox	Broadcom	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		•	Type	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01			100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56	MCX516A	CURDA34DZZ40EF-D			100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C			100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			100	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			100	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05			100	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28		FPD-208R008-A0	< <	ВС	100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R	SISI	SWS	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56		LA0QF123-SD-R	122	95	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	6Α	LA0QF105-SD-R	110	4.	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	'n	PCRQQ1904-SD-R/A891A002	MSN2410-CB2F	4	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	CAT	PCRQQ1904-SD-R/A891A003	В2	4	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	4	MCP1650-H00AE30	Ti .	40	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30			100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			100	Pass	Pass	Pass	Pass

Mellanox MCX516A to Mellanox MSN2700 Switch to Broadcom BCM957454A4540





IBTA PF34 RoCE Interoperability 100 Gigabit Ethernet

Scenario 07



Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		•	Type	RNIC	Test	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123		100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124		100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28	•	FCBN425QE1C01		100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28	•	FCBN425QB1C05		100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28	•	FCBN425QE1CX0		100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56	•	CURDA34DZZ40EF-D		100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56	•	CURDA34DZZ40EF-C		100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56	•	CURDA33EZZ40EF-D		100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56	•	CURDA33EZZ40EF-C		100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	BCM	LA0QF122-SD-R		100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	WS .	LA0QF123-SD-R		100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	95	LA0QF105-SD-R	ဉ	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	4.	PCRQQ1904-SD-R/A891A002	.45611	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	\$	PCRQQ1904-SD-R/A891A003	3	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	4	MCP1650-H00AE30	_	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	540	MCP1650-H001E30		100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30		100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26		100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26		100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		100	Pass	Pass	Pass	Pass

Broadcom BCM957454A4540 to Marvell QL45611







100 Gigabit Ethernet Scenario 08

Company	Length Meters	AWG	Equalization	Connector Type	Broadcom RNIC	Cable Under Test	Mellanox RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI +	Overall Result
BizLink	3	30	Copper - Unequalized	QSFP28	KNIC	AEQ123	KNIC	100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124		100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01		100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05		100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0		100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D		100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Linear Active	QSFP56		CURDA34DZZ40EF-C		100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D		100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C		100	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04		100	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28	o o	FPD-208R008-05	_	100	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28	CM9	FPD-208R008-A0	≤	100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	9	LA0QF122-SD-R	Ä	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56)574	LA0QF123-SD-R	5.1	100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	5	LA0QF105-SD-R	P	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	₹	PCRQQ1904-SD-R/A891A002	8	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	1540	PCRQQ1904-SD-R/A891A003	MCX516A-CCAT	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	Ö	MCP1650-H00AE30	7	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30		100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30		100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26		100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26		100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		100	Pass	Pass	Pass	Pass

Broadcom BCM957454A4540 to Mellanox MCX516A





100 Gigabit Ethernet Scenario 09



Company	Length	AWG	Equalization	Connector	Mellanox	Cable Under	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Туре	RNIC	Test	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123		100	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124		100	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01		100	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05		100	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0		100	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D		100	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D		100	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R		100	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	≥	LA0QF123-SD-R		100	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	MCX5	LA0QF105-SD-R	•	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28		PCRQQ1904-SD-R/A891A002	δ	100	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	6A	PCRQQ1904-SD-R/A891A003	45611	100	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	ပ်	MCP1650-H00AE30	611	100	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	CA	MCP1650-H001E30		100	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56	4	MCP1650-H01AE30		100	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26		100	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26		100	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		100	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		100	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		100	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		100	Pass	Pass	Pass	Pass

Mellanox MCX516A to Marvell QL45611







Company	Length	AWG	Equalization	Connector	Marvell	Cable Under	Mellanox	Broadcom	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		-	Туре	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP+		FCBN410QD3C01			40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0			40	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D			40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56	_	CURDA33EZZ40EF-C			40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R			40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56		LA0QF123-SD-R			40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56		LA0QF105-SD-R	≥	ВС	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28		PCRQQ1904-SD-R/A891A002	MSX6036G	š	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	P	PCRQQ1904-SD-R/A891A003	60	95	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	5	MCP1650-H00AE30	360	4	40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	412	MCP1650-H001E30	G-2	4	40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30	SF	4	40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26	တ်	40	40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			40	Pass	Pass	Pass	Pass

Marvell QL45412 to Mellanox MSX6036G Switch to Broadcom BCM957414A4140







Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Mellanox	Mellanox	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Туре	RNIC	Test	Switch	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			40	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124			40	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05			40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP+		FCBN410QD3C01			40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0			40	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56	ВСМ9	CURDA34DZZ40EF-D			40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D			40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C			40	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			40	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05			40	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28		FPD-208R008-A0	≤	≥	40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R	MSX6036G	S	40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	957	LA0QF123-SD-R	60	42	40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	'41	LA0QF105-SD-R	360	6 A	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	4A	PCRQQ1904-SD-R/A891A002	9-2	MCX416A-BCAT	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	4140	PCRQQ1904-SD-R/A891A003	-2SF	S S	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	40	MCP1650-H00AE30	Ö	4	40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30			40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			40	Pass	Pass	Pass	Pass

Broadcom BCM957414A4140 to Mellanox MSX6036G Switch to Mellanox MCX416A







Company	Length	AWG	Equalization	Connector	Mellanox	Cable Under	Mellanox	Marvell	Link	Device Link	SFI Perf	Open MPI +	Overall
- Cpuy	Meters	7	quan_anon	Type	RNIC	Test	Switch	RNIC	Speed	201100 2	Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123			40	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124	•		40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP28		FCBN425QE1C01	•		40	Pass	Pass	Pass	Pass
Finisar	5	n/a	Fiber - Active	QSFP28		FCBN425QB1C05	•		40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP28		FCBN425QE1CX0	•		40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP+	MCX416A	FCBN410QD3C01	•		40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0	•		40	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04			40	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28		FPD-208R008-05	•		40	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28		FPD-208R008-A0	_		40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R	MSX6036G		40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56		LA0QF123-SD-R	X 6	Q	40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	116	LA0QF105-SD-R	2	QL45412	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	1	PCRQQ1904-SD-R/A891A002	ဓို	5 4	40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	ВС	PCRQQ1904-SD-R/A891A003	-28	20	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	АТ	MCP1650-H00AE30	.2SFS		40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56		MCP1650-H001E30	0,		40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56		MCP1650-H01AE30			40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26			40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26			40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26			40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5			40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3			40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5			40	Pass	Pass	Pass	Pass

Mellanox MCX416A to Mellanox MSX6036G Switch to Marvell QL45412







Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters		-	Type	RNIC	Test	RNIC	Speed		Testing	IMB Testing	Result
Finisar	1	n/a	Fiber - Active	QSFP+		FCBN410QD3C01		40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0		40	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D		40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C		40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56		LA0QF122-SD-R		40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56		LA0QF123-SD-R		40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56		LA0QF105-SD-R		40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	C	PCRQQ1904-SD-R/A891A002		40	Pass	Pass	Pass	Pass
Luxshare-ICT	100	n/a	Fiber - Active	QSFP28	19!	PCRQQ1904-SD-R/A891A003	ō	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	574	MCP1650-H00AE30	L45	40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	114	MCP1650-H001E30	54,	40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56	₹	MCP1650-H01AE30	12	40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56	.14	MCP1650-H002E26		40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56	0	MCP1650-H02AE26		40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		40	Pass	Pass	Pass	Pass

Broadcom BCM957414A4140 to Marvell QL45412







Company	Length	AWG	Equalization	Connector	Broadcom	Cable Under	Mellanox	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Туре	RNIC	Test	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123		40	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124		40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP+		FCBN410QD3C01		40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0		40	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D		40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D		40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C		40	Pass	Pass	Pass	Pass
Fujitsu	4	n/a	Fiber - Active	QSFP28		FPD-208R008-04		40	Pass	Pass	Pass	Pass
Fujitsu	5	n/a	Fiber - Active	QSFP28	o o	FPD-208R008-05	_	40	Pass	Pass	Pass	Pass
Fujitsu	100	n/a	Fiber - Active	QSFP28	Ĉ	FPD-208R008-A0	MCX41	40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	19W	LA0QF122-SD-R	X X	40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	572	LA0QF123-SD-R	7	40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	17.4	LA0QF105-SD-R	6A-	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	Ž.	MCP1650-H00AE30	-BCAT	40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	.140	MCP1650-H001E30	A	40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56	0	MCP1650-H01AE30		40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56		MCP1650-H002E26		40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26		40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		40	Pass	Pass	Pass	Pass

Broadcom BCM957414A4140 to Mellanox MCX416A







Company	Length	AWG	Equalization	Connector	Mellanox	Cable Under	Marvell	Link	Device Link	SFI_Perf	Open MPI +	Overall
	Meters			Type	RNIC	Test	RNIC	Speed		Testing	IMB Testing	Result
BizLink	3	30	Copper - Unequalized	QSFP28		AEQ123		40	Pass	Pass	Pass	Pass
BizLink	5	26	Copper - Unequalized	QSFP28		AEQ124		40	Pass	Pass	Pass	Pass
Finisar	1	n/a	Fiber - Active	QSFP+		FCBN410QD3C01		40	Pass	Pass	Pass	Pass
Finisar	100	n/a	Fiber - Active	QSFP+		FCBN410QD3CX0		40	Pass	Pass	Pass	Pass
Foxconn	5	30	Copper - Unequalized	QSFP56		CURDA34DZZ40EF-D		40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Unequalized	QSFP56		CURDA33EZZ40EF-D		40	Pass	Pass	Pass	Pass
Foxconn	7	28	Copper - Linear Active	QSFP56		CURDA33EZZ40EF-C		40	Pass	Pass	Pass	Pass
Luxshare-ICT	1	30	Copper - Unequalized	QSFP56	≤	LA0QF122-SD-R		40	Pass	Pass	Pass	Pass
Luxshare-ICT	2	28	Copper - Unequalized	QSFP56	MCX41	LA0QF123-SD-R		40	Pass	Pass	Pass	Pass
Luxshare-ICT	2.5	26	Copper - Unequalized	QSFP56	<u> </u>	LA0QF105-SD-R	ڪ	40	Pass	Pass	Pass	Pass
Mellanox	0.5	30	Copper - Unequalized	QSFP56	6 A	MCP1650-H00AE30	45412	40	Pass	Pass	Pass	Pass
Mellanox	1	30	Copper - Unequalized	QSFP56	ВС	MCP1650-H001E30	172	40	Pass	Pass	Pass	Pass
Mellanox	1.5	30	Copper - Unequalized	QSFP56	>	MCP1650-H01AE30		40	Pass	Pass	Pass	Pass
Mellanox	2	26	Copper - Unequalized	QSFP56	4	MCP1650-H002E26		40	Pass	Pass	Pass	Pass
Mellanox	2.5	26	Copper - Unequalized	QSFP56		MCP1650-H02AE26		40	Pass	Pass	Pass	Pass
Mellanox	3	26	Copper - Unequalized	QSFP56		MCP1650-H003E26		40	Pass	Pass	Pass	Pass
Molex LLC	0.5	30	Copper - Unequalized	QSFP56		205898-1052		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		4-2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		4-2333393-5		40	Pass	Pass	Pass	Pass
TE Connectivity	1	30	Copper - Unequalized	QSFP28		2333393-3		40	Pass	Pass	Pass	Pass
TE Connectivity	2	30	Copper - Unequalized	QSFP28		2333393-5		40	Pass	Pass	Pass	Pass

Mellanox MCX416A to Marvell QL45412





25 Gigabit Ethernet Scenario 16



Company	Length Meters	AWG	Equalization	Connector Type	Marvell RNIC	Cable Under Test	Mellanox Switch	Broadcom RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28)	4-2821224-5	NSM	всм9	25	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	ՋL4121	205896-1052	12410-0)57414	25	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	2	205896-3302	CB2F	A4141	25	Pass	Pass	Pass	Pass

Marvell QL41212 to Mellanox MSN2410 Switch to Broadcom BCM957414A4141



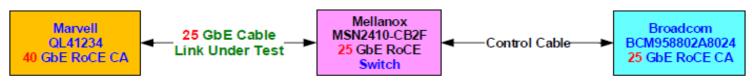




25 Gigabit Ethernet Scenario 17

Company	Length Meters	AWG	Equalization	Connector Type	Marvell RNIC	Cable Under Test	Mellanox Switch	Broadcom RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28)	4-2821224-5	NSM	ВСМ	25	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	Ն 123	205896-1052	2410-0	58802	25	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	4	205896-3302	CB2F	A8024	25	Pass	Pass	Pass	Pass

Marvell QL41234 to Mellanox MSN2410 Switch to Broadcom BCM958802A8024





25 Gigabit Ethernet Scenario 18



Company	Length Meters	AWG	Equalization	Connector Type	Marvell RNIC	Cable Under Test	Mellanox Switch	Mellanox RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28	0	4-2821224-5	NSN	MCX.	25	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	ุว∟4521	205896-1052	12410-0	1121A-	25	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	2	205896-3302	CB2F	ACAT	25	Pass	Pass	Pass	Pass

Marvell QL45212 to Mellanox MSN2410 Switch to Mellanox MCX4121A



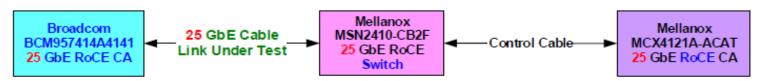


25 Gigabit Ethernet Scenario 19



Company	Length Meters	AWG	Equalization	Connector Type	Broadcom RNIC	Cable Under Test	Mellanox Switch	Mellanox RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28	всм9	4-2821224-5	NSM	WCX2	25	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28)57414	205896-1052	2410-0	1121A-	25	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	A4141	205896-3302	CB2F	ACAT	25	Pass	Pass	Pass	Pass

Broadcom BCM957414A4141 to Mellanox MSN2410 Switch to Mellanox MCX4121A-ACAT



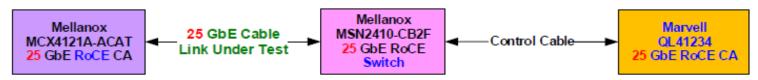


25 Gigabit Ethernet Scenario 20



Company	Length Meters	AWG	Equalization	Connector Type	Mellanox RNIC	Cable Under Test	Mellanox Switch	Marvell RNIC	Link Speed	Device Link	SFI_Perf Testina	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28	MCX.	4-2821224-5	MSM	0	25	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	4121A-	205896-1052	12410-0	ՋL4123	25	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	ACAT	205896-3302	B2F	4	25	Pass	Pass	Pass	Pass

Mellanox MCX4121A-ACAT to Mellanox MSN2410 Switch to Marvell QL41234





10 Gigabit Ethernet Scenario 21



Company	Length Meters	AWG	Equalization	Connector Type	Broadcom RNIC	Cable Under Test	Mellanox Switch	Mellanox RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28	всм9	4-2821224-5	NSM	МСХ	10	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	58802	205896-1052	2410-0	312B-)	10	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	A8024	205896-3302	CB2F	(ССТ	10	Pass	Pass	Pass	Pass

Broadcom BCM958802A8024 to Mellanox MSN2410 Switch to Mellanox MCX312B







Company	Length Meters	AWG	Equalization	Connector Type	Mellanox RNIC	Cable Under Test	Mellanox Switch	Marvell RNIC	Link Speed	Device Link	SFI_Perf Testing	Open MPI + IMB Testing	Overall Result
TE Connectivity	2	30	Copper - Unequalized	SFP28	l ×	4-2821224-5	NSM	0	10	Pass	Pass	Pass	Pass
Molex LLC	1	30	Copper - Unequalized	SFP28	312B->	205896-1052	2410-0)L4121	10	Pass	Pass	Pass	Pass
Molex LLC	2	26	Copper - Unequalized	SFP28	-XCCT	205896-3302	CB2F	2	10	Pass	Pass	Pass	Pass

Mellanox MCX312B to Mellanox MSN2410 Switch to Marvell QL41212

