

Marvell QLogic Fibre Channel Adapters for HPE ProLiant **Gen10/Gen10 Plus** Servers

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<b>Fibre Channel HBAs for HPE ProLiant/Apollo Gen10/Gen10 Plus Servers</b>			
	<b>SN1100Q</b>	<b>SN1600Q</b>	<b>SN1610Q</b>
Part Number	P9D934/P9D94A	P9M75A/P9M76A	R2E08A/R2E09A
Bandwidth	16GFC	32GFC	32GFC
Ports	1/2	1/2	1/2
Connection	SFP+	SFP+	SFP+
Max IOPS	1.3 Million	1.3 Million	2.0 Million
ECC Encoding	64/66	64/66	64/66
Dual Port Isolation	✓	✓	✓
Secure FW / RoT	-	-	✓
NPIV Port Virtualization	✓	✓	✓
Forward Error Correction	✓	✓	✓
T10-PI	✓	✓	✓
FA-WWN / F-BLD	✓	✓	✓
Diagnostic Port	✓	✓	✓
FDMI	✓	✓	✓
Read Diag Port (RDP)	✓	✓	✓
Link Cable Beaconsing	✓	✓	✓
FC-NVMe	✓	✓	✓
Redfish Device Enablement (RDE) - Reads	✓	✓	✓
Gen10 Server Support	✓	✓	✓
Gen10 Plus Server Support	✓	-	✓

<b>Fibre Channel HBAs for HPE BladeSystem and HPE Synergy Gen10 Servers</b>			
	<b>QMH2672</b>	<b>HPE Synergy 3830C</b>	<b>HPE Synergy 5830C</b>
Part Number	710608-B21	777452-B21	777456-B21
Bandwidth	16GFC	16GFC	32GFC
Ports	2	2	2
Server Type	BladeSystem c-Class	HPE Synergy	HPE Synergy
Max IOPS	1.3 Million	1.3 Million	1.3 Million
ECC Encoding	64/66	64/66	64/66
Dual Port Isolation	✓	✓	✓
NPIV Port Virtualization	✓	✓	✓
Forward Error Correction	✓	✓	✓
T10-PI	✓	✓	✓
FA-WWN / F-BLD	✓	✓	✓
Diagnostic Port	✓	✓	✓
FDMI	✓	✓	✓
Read Diag Port (RDP)	✓	✓	✓
Link Cable Beaconsing	✓	✓	✓
FC-NVMe	-	-	✓
Redfish Device Enablement (RDE) - Reads	-	-	✓
Gen10 Server Support	✓	✓	✓
Gen10 Plus Server Support	-	-	✓

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## Fibre Channel Technology Features Explained

Feature	What is it?	Customer benefit?
Dual Port Isolation Design	ASIC design utilizing dedicated processor, memory and firmware for each adapter port	Ensures predictable per-port performance and increases overall SAN reliability
NPIV Port Virtualization	Allows a single FC port to register multiple worldwide port names, allowing the adapter to virtualize the physical port	Reduces number of physical connections required to support storage connections for virtual machines
Forward Error Correction	Enhanced error correction encoding now part of 32Gb FC Standard	Improves transmission reliability and reduces potential data errors in FC SAN
T10 Protection Information (T10-PI, T10-DIF)	Update to SCSI Standard to increase data integrity	Improves data fault tolerance and resiliency
Virtual Machine ID (VM-ID)	Add VM identifier information to FC frame header for use in monitoring, reporting and analytics	Network administrator can see SAN congestion at the VM/LUN level, reducing bottlenecks, troubleshooting time
Fabric Assigned WWN, Fabric-based Boot LUN (FA-WWN, F-BLD)	Fibre Channel features to pre-configure adapter configuration setting in the fabric	Reduces SAN deployment time by as much as 30%
D-Port, FDMI, Read Diagnostic Parameter (RDP), Link Cable Beaconsing (LCB)	Enhanced diagnostic and parameter information that can be transmitted in a 16GFC or 32GFC FC SAN	Reduces troubleshooting effort by as much as 50%
Universal SAN Congestion Mitigation (USCM)	Enables FC Fabric to notify end node of potential congestion build-up in the SAN using Fabric Performance Impact Notifications (FPIN)	Reduces likelihood of slow drain devices and fabric congestions, quarantining of affected flows on both B-Series and C-series fabrics
Non-Volatile Memory Express over Fibre Channel (FC- NVMe)	Ability to transport NVMe commands within Fibre Channel frames	Future-proof infrastructure – works today with Fibre Channel, will support NVMe when available