

Marvell QLogic Fibre Channel adapters for HPE ProLiant **Gen10/Gen10 Plus** servers

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	SN1100Q	SN1600Q	SN1610Q	HPE Synergy 5830C
Part number	P9D934/P9D94A	P9M75A/P9M76A	R2E08A/R2E09A	777456-B21
Bandwidth	16GFC	32GFC	32GFC	32GFC
Ports	1/2	1/2	1/2	2
Connection	SFP+	SFP+	SFP+	N/A
Max IOPS	1.3 million	1.3 million	2.0 million	1.3 million
ECC encoding	64/66	64/66	64/66	64/66
Dual port isolation	✓	✓	✓	✓
Secure FW / RoT	-	-	✓	-
NPIV port virtualization	✓	✓	✓	✓
Forward error correction (FEC)	✓	✓	✓	✓
T10 protection information (T10-PI / T10-DIF)	✓	✓	✓	✓
FA-WWN / F-BLD	✓	✓	✓	✓
Diagnostic port	✓	✓	✓	✓
FDMI	✓	✓	✓	✓
Read diagnostic port (RDP)	✓	✓	✓	✓
Link cable beaconing (LCB)	✓	✓	✓	✓
FC-NVMe	✓	✓	✓	✓
Redfish device enablement (RDE) – reads only	✓	✓	✓	✓
Fabric performance impact notification (FPIN)	✓	✓	✓	✓
Gen10 server support	✓	✓	✓	✓
Gen10 Plus server support	✓	-	✓	✓
Gen11 server support	-	-	✓	N/A

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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 (FEC)	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 beaconing (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