

High Performance, High Reliability and Feature-Rich Fibre Channel for HPE ProLiant, Apollo, BladeSystem and HPE Synergy servers

Fibre Channel HBAs for HPE ProLiant/Apollo Servers						
	81Q	82Q	84Q	SN1100Q	SN1600Q	SN1610Q
Part Number	AK344A	AJ764A	P9D91A	P9D934/P9D94A	P9M75A/P9M76A	R2E08A/R2E09A
Bandwidth	8Gbps	8Gbps	8Gbps	16GFC	32GFC	32GFC
Ports	1	2	4	1/2	1/2	1/2
Connection	SFP+	SFP+	SFP+	SFP+	SFP+	SFP+
Max IOPS	200K	400K	800K	1.3 Million	1.3 Million	2.0 Million
ECC Encoding	8/10	8/10	8/10	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	-	-	-	✓	✓	✓
FC Ping	-	-	-	✓	✓	✓
FC Trace Route	-	-	-	✓	✓	✓
FDMI	-	-	-	✓	✓	✓
Read Diag Port (RDP)	-	-	-	✓	✓	✓
Link Cable Beaconsing	-	-	-	✓	✓	✓
FC-NVMe	-	-	-	✓	✓	✓
Gen9 Server Support	✓	✓	✓	✓	✓	✓
Gen10 Server Support	-	-	-	✓	✓	✓
Fibre Channel HBAs for HPE BladeSystem and HPE Synergy						
	QMH2572	QMH2672	HPE Synergy 3830C		HPE Synergy 5830C	
Part Number	651281-B21	710608-B21	777452-B21		777456-B21	
Bandwidth	8Gbps	16GFC	16GFC		32GFC	
Ports	2	2	2		2	
Server Type	BladeSystem c-Class	BladeSystem c-Class	HPE Synergy		HPE Synergy	
Max IOPS	400K	1.3 Million	1.3 Million		1.3 Million	
ECC Encoding	8/10	64/66	64/66		64/66	
Dual Port Isolation	✓	✓	✓		✓	
NPIV Port Virtualization	✓	✓	✓		✓	
Forward Error Correction	-	✓	✓		✓	
T10-PI	-	✓	✓		✓	
FA-WWN / F-BLD	-	✓	✓		✓	
Diagnostic Port	-	✓	✓		✓	
FC Ping	-	✓	✓		✓	
FC Trace Route	-	✓	✓		✓	
FDMI	-	✓	✓		✓	
Read Diag Port (RDP)	-	✓	✓		✓	
Link Cable Beaconsing	-	✓	✓		✓	
FC-NVMe	-	-	-		✓	
Gen9 Server Support	✓	✓	✓		-	
Gen10 Server Support	-	✓	✓		✓	

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 Gen 6 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%
FC Ping, FC Trace Route	SAN diagnostic features enabled with QLogic QConvergeConsole	Simplify troubleshooting of SAN connectivity issues.
D-Port, FDMI, Read Diagnostic Parameter (RDP), Link Cable Beaconsing (LCB)	Enhanced diagnostic and parameter information that can be transmitted in a Gen 5 or Gen 6 FC SAN	Reduces troubleshooting effort by as much as 50%
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