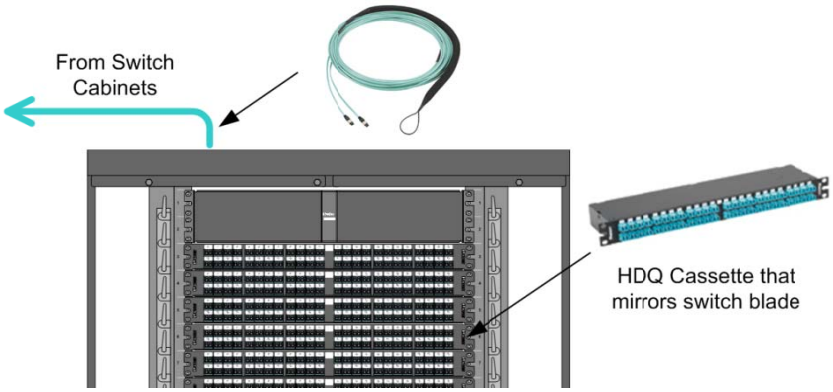
Panduit QuickNet™ HDQ Series High Density Fiber Optic Cassettes

Purpose

The purpose of this document is to define the Panduit QuickNet™ HDQ Series High Density Fiber Optic Cassettes and their use in both local area network (LAN) and storage area network (SAN) cross connect areas of the data center.



Issue

High density LAN and SAN switches containing 32, 48 or 64 fiber port blades has become a standard fixture in today's data center environment. The fiber port layout on these blades is grouped in either four or six ports depending upon the manufacturer. As a result of this high density application and port layout, cable and port management in the patch field for these blades has become more difficult.

Presently, the use of numerous fiber cassettes or fiber adapter panels within a rack or several rack units have been used in these patching areas to assist with these challenges. While these may be viable solutions for cable management and patching, there has been an expressed need for switch port replication in these areas. These cassette and fiber adapter panel solutions currently do not address this need. Port replication is necessary to allow for easier labeling, better cable management and less confusion when completing moves, adds, or changes (MACs).

Figures 1 - 5 show how different types of line cards "port replicate" with three different patching options. The coloring is shown to designate the port groupings on the switch and the associated patching layout on the cassette based systems. The HDQ series cassettes are shipped with TIA standards compliant coloring (Aqua for OM3/OM4).

64 port line card with 4 port fiber groupings

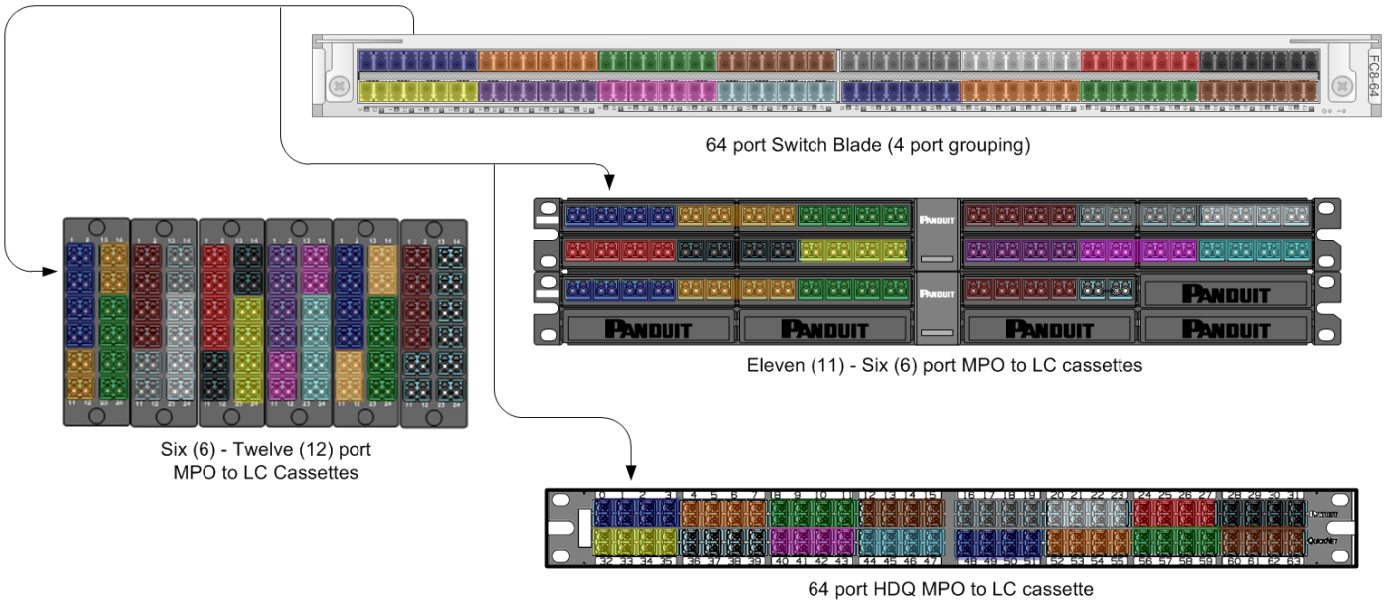


Figure 1. 64 port line card patching comparison between 64 port HDQ cassette and standard SFQ cassettes

48 port line card with 4 port "horizontal" fiber groupings

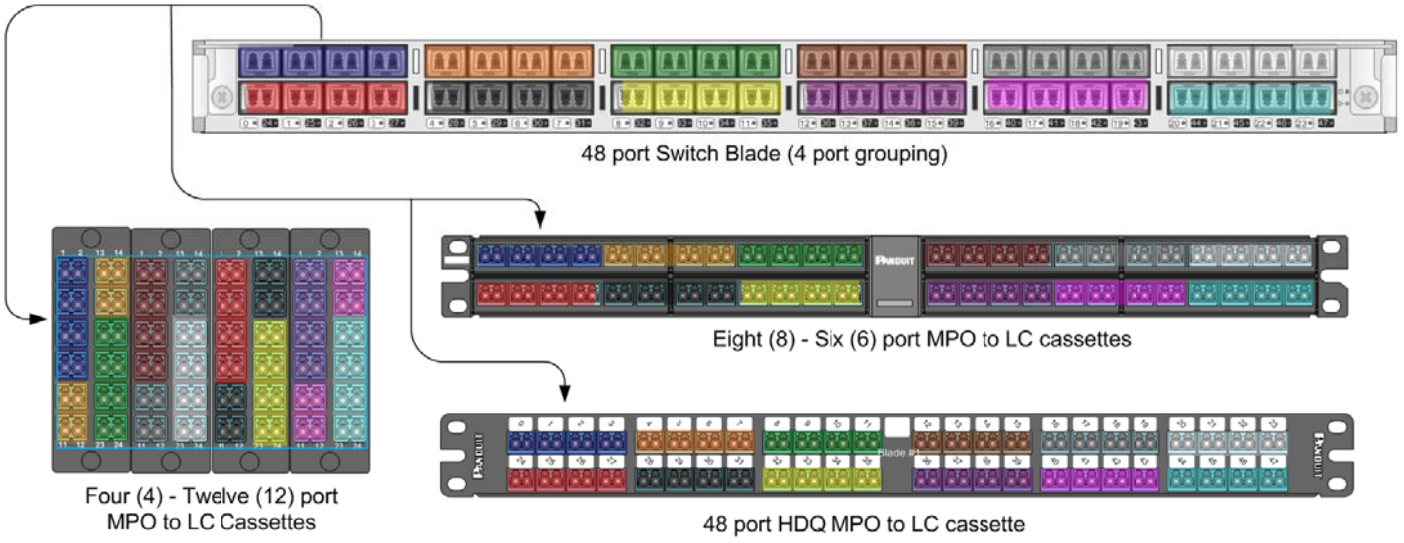


Figure 2. 48 port "horizontal" patched line card comparison between 48 port HDQ cassette and standard SFQ cassettes

48 port line card with 6 port "vertical" fiber groupings

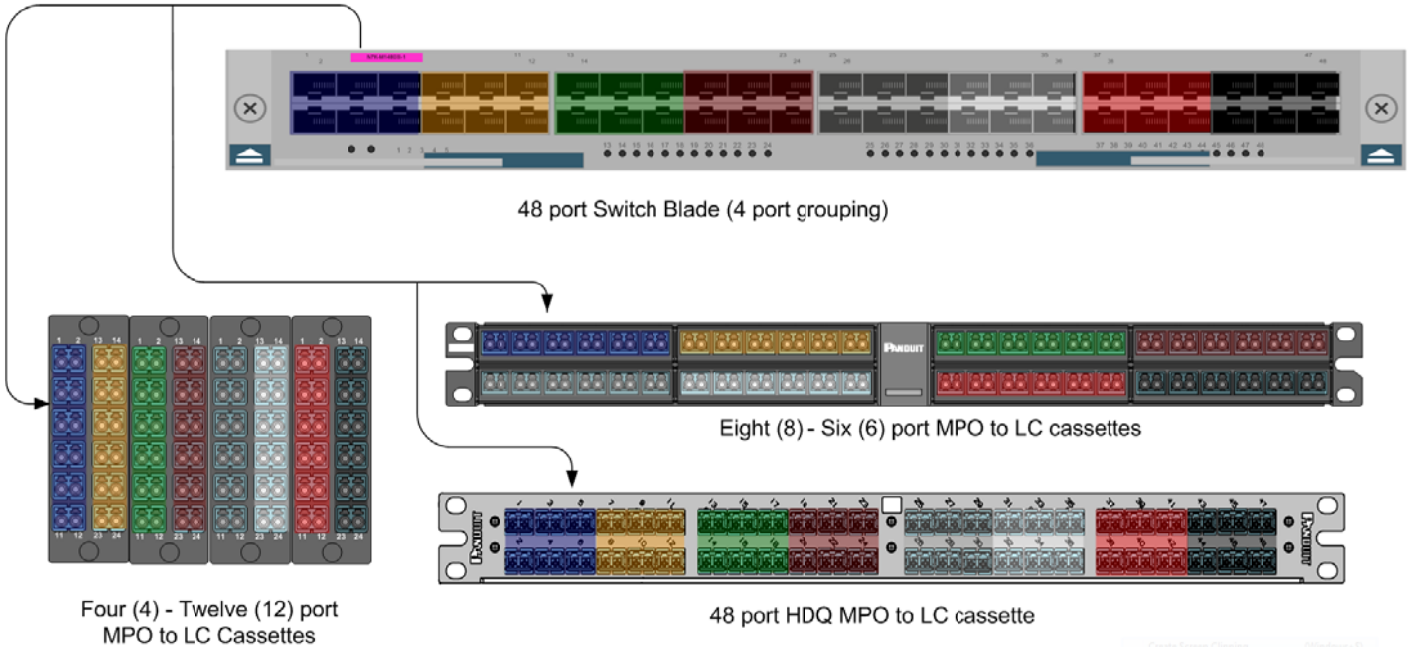


Figure 3

32 port line card with 4 port "horizontal" fiber groupings

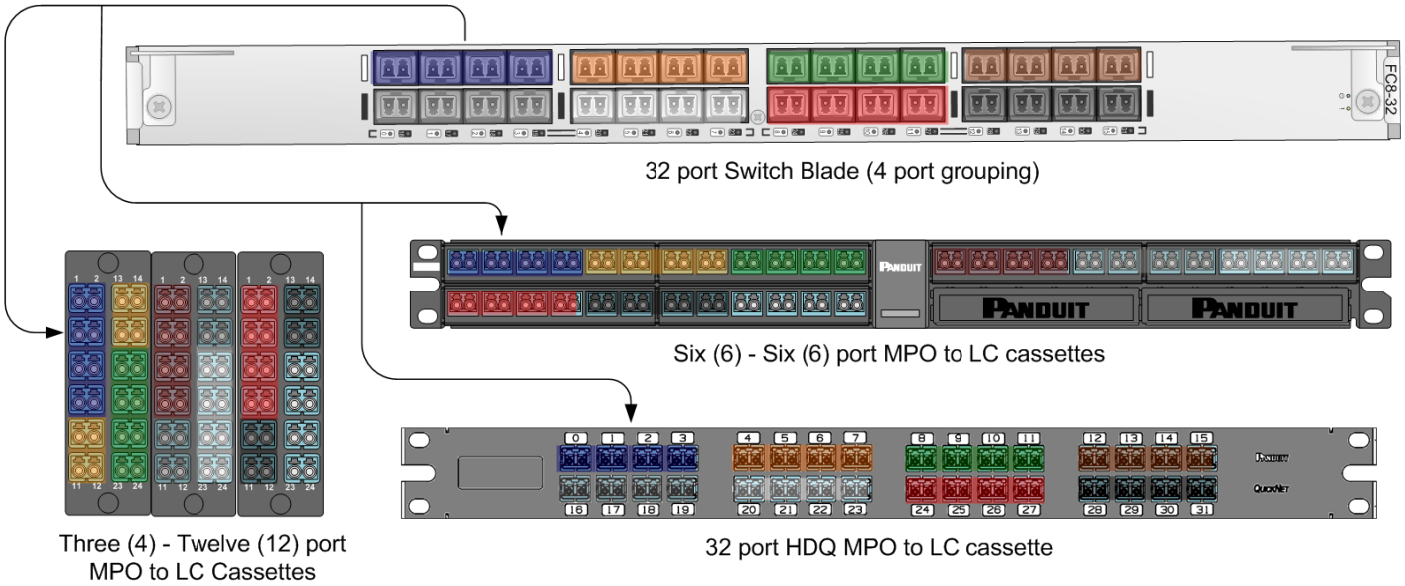


Figure 4

32 port line card with 4 port "vertical" fiber groupings

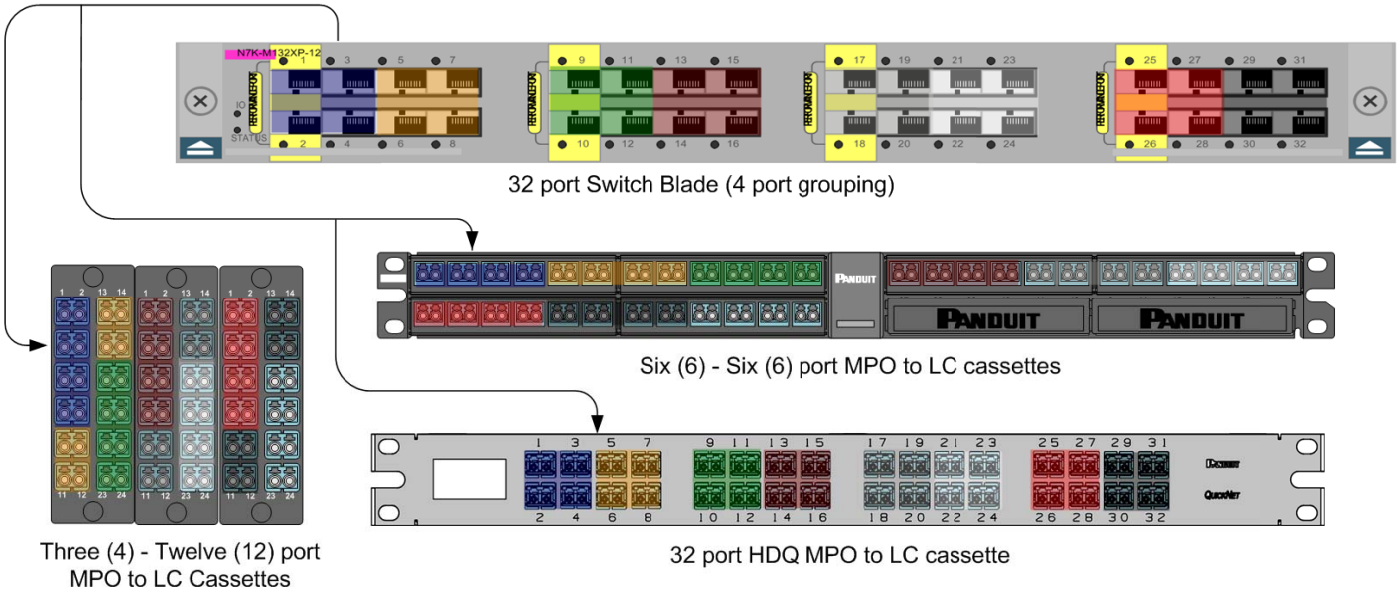
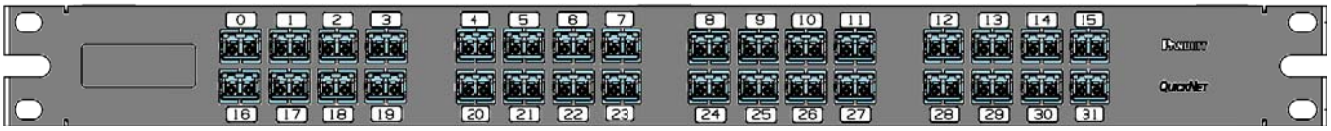
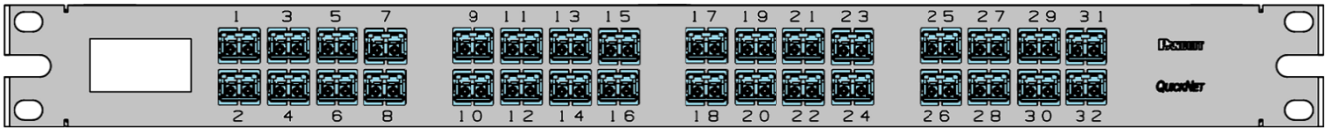


Figure 5

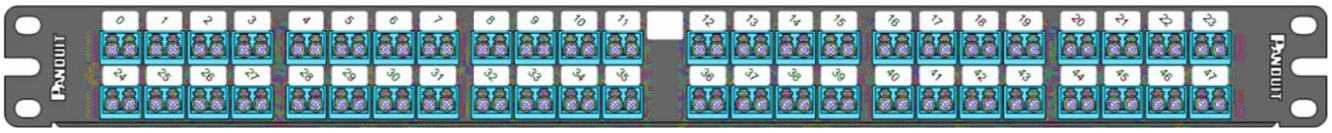
As shown in Figures 1 -5, the one solution that exactly "port replicates" the line card shown is the Panduit QuickNet HDQ Series High Density Cassette.



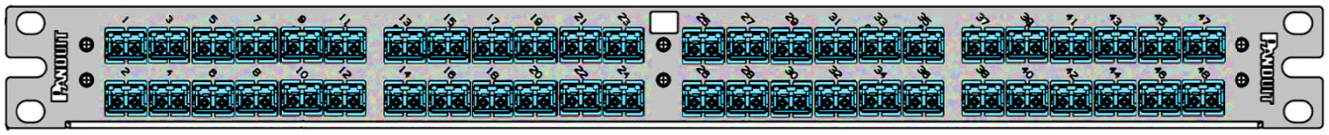
Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Fiber Type	Channel Insertion Loss
F1RBXN-6408-10S	Flat	Brocade Labeling	OM3	0.75 dB Max.
F1RBXO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.
F1RBZN-6408-10S			OM4	0.75 dB Max.
F1RBZO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.
F1ABXN-6408-10S	Angled		OM3	0.75 dB Max.
F1ABXO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.
F1ABZN-6408-10S			OM4	0.75 dB Max.
F1ABZO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.



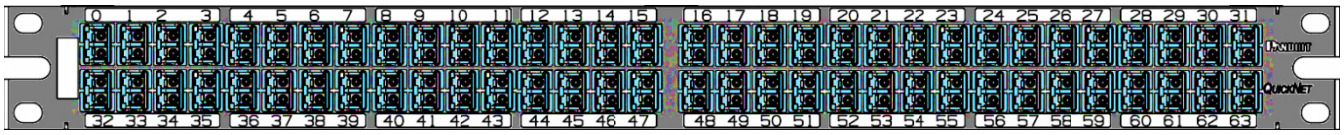
Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Fiber Type	Channel Insertion Loss
F1RCXN-6408-10S	Flat	Cisco Labeling	OM3	0.75 dB Max.
F1RCXO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.
F1RCZN-6408-10S			OM4	0.75 dB Max.
F1RCZO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.
F1ACXN-6408-10S	Angled		OM3	0.75 dB Max.
F1ACXO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.
F1ACZN-6408-10S			OM4	0.75 dB Max.
F1ACZO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.



Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Fiber Type	Channel Insertion Loss
F1RBXN-9608-10S	Flat	Brocade Labeling	OM3	0.75 dB Max.
F1RBXO-9608-10S			OM3 Laser-Optimized	0.50 dB Max.
F1RBZN-9608-10S			OM4	0.75 dB Max.
F1RBZO-9608-10S			OM4 Laser-Optimized	0.50 dB Max.



Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Fiber Type	Channel Insertion Loss
F1RCXN-9612-10S	Flat	Cisco Labeling	OM3	0.75 dB Max.
F1RCXO-9612-10S			OM3 Laser-Optimized	0.50 dB Max.
F1RCZN-9612-10S			OM4	0.75 dB Max.
F1RCZO-9612-10S			OM4 Laser-Optimized	0.50 dB Max.



Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Fiber Type	Channel Insertion Loss
F1RBXN-1B08-10S	Flat	Brocade Labeling	OM3	0.75 dB Max.
F1RBXO-1B08-10S			OM3 Laser-Optimized	0.50 dB Max.
F1RBZN-1B08-10S			OM4	0.75 dB Max.
F1RBZO-1B08-10S			OM4 Laser-Optimized	0.50 dB Max.
F1ABXN-1B08-10S	Angled		OM3	0.75 dB Max.
F1ABXO-1B08-10S			Laser-Optimized OM3	0.50 dB Max.
F1ABZN-1B08-10S			OM4	0.75 dB Max.
F1ABZO-1B08-10S			Laser-Optimized OM4	0.50 dB Max.

Solution

The QuickNet™ HDQ Series High Density Fiber Optic Cassettes can be used in high-density network applications for cross connects in the main distribution, horizontal distribution, or equipment distribution areas and comply with IEEE 802.3ae 10GBASE and ANSI T11.2 Fibre Channel requirements.

The high density cassettes are designed to mount into 19" wide telecommunications racks and allow for 32, 48 or 62 fiber ports to be deployed in one rack unit (1 RU) along with being numbered and grouped according to the layout of the switch blade. This allows for quick installation with minimal labeling and provides an exact replication of the switch blade at the patch field to assist with adds/moves/changes. The cassettes are available with angled faceplates to provide for easy patch cord flow to vertical cable management; reducing or eliminating the need for horizontal cable managers