

# QuickNet™ HDQ Series High Density Fiber Optic Cassettes

## technical information

The QuickNet™ HDQ Series Fiber Optic Cassettes is a component of the QuickNet™ Fiber Optic Cabling System. QuickNet™ HDQ Series Fiber Optic Cassettes are used in high-density network applications as specified in the Data Center Cabling Standard TIA 942 for cross connects in main distribution, horizontal distribution, and equipment distribution areas. The QuickNet™ Pre-Terminated Cabling System meets the demands of Gigabit Ethernet, 10 Gigabit Ethernet, and high-speed Fibre Channel systems while maintaining compatibility with Ethernet, Fast Ethernet, and ATM. QuickNet™ HDQ Series Fiber Optic Cassettes are pre-terminated and designed to mount into 19" wide telecommunications racks allowing 96 fiber connections to be deployed in one rack unit (1 RU) without additional support infrastructure. This ensures efficient use of space, quick deployment, and the highest reliability for the lowest installed cost. This space saving one rack unit package provides port mapped compatibility with the SAN market switch blade leaders, Cisco<sup>‡</sup> and Brocade<sup>‡‡</sup>. The Panduit High Density Fiber Cassette solution will provide increased access between ports, thus enabling the ease of moves, adds, and changes.



## application

QuickNet™ HDQ Series Fiber Optic are used in high-density network applications as specified in the Data Center Cabling Standard TIA 942 for cross connects in main distribution, horizontal distribution, and equipment distribution areas.

## construction

<b>Material:</b>	Metal
<b>Fiber types:</b>	Singlemode: OS1/OS2 9/125um Multimode: OM3 10Gig 50/125um OM4 10Gig 50/125um
<b>Split sleeve material:</b>	Zirconia ceramic
<b>Insertion loss:</b>	Optimized (per fiber): 0.5dB max.
<b>Fiber count:</b>	64, 96, 128 and 144
<b>Front connectivity:</b>	Multimode LC Duplex adapters with PC polish Singlemode LC Duplex adapters with UPC polish
<b>Polarity: (last character in part number)</b>	S = Method A F = Modified Method A Polarity (flipped-pairs)
<b>Rear connectivity:</b>	Multimode MTP* adapters with male ferrules (pins) and PC polish Multimode MTP* adapters with male ferrules (pins) and APC polish
<b>Return loss:</b>	Per fiber >26dB (10Gig multimode) Per fiber ≥55dB (Singlemode)

## key features and benefits

<b>Optimized performance enhancement:</b>	Unique, industry-leading proprietary MTP* polishing processes; optimized connector-to-connector mating resulting in 0.5dB max. insertion loss
<b>High-density design:</b>	Maximizes density with up to 144 fiber connections in 1RU for efficient utilization of rack space; design features provides lower total cost of ownership; reduces or eliminates the need for additional infrastructure support
<b>MTP* 12-fiber connector:</b>	Provides reduced overall insertion loss with low channel to channel variability for improved channel link loss performance
<b>Verified optical performance:</b>	100% tested; provides consistent high performance and reliability for improved network integrity
<b>Pre-terminated modular cassette system:</b>	Provides improved reliability and quick deployment to reduce installation time and cost
<b>Certified 10 GbE OM3 and OM4 performance:</b>	10Gig™ Fiber Optic Cassettes are tested per IEEE 802.3ae 10 GbE to support network transmission speeds up to 10 Gb/s for link lengths up to 300 meters at 850nm for OM3 fiber, and for link lengths up to 550 meters for OM4 fiber; meets Fibre Channel standards when used with Panduit® Opti-Core® Fiber Optic Cables
<b>Angled profile design (Panduit exclusive):</b>	Angled patch field profile eases patch cord flow to vertical cable management; reduces or eliminates the need for horizontal cable managers; angled profile compatible with existing Panduit copper patch panels for uniform installations
<b>Consistent port labeling mapping from switch blade to patch field:</b>	Product configurations port mapped specifically for Cisco <sup>‡</sup> and Brocade <sup>‡‡</sup> switch blades; customer can design the fiber cable distribution port labels consistent with specific switch blade manufacturer conventions
<b>QuickNet™ product identification:</b>	Data label on each product includes port identification and Q.C. number for quick identification and 100% traceability
<b>Adapter housing colors follow TIA/EIA-568-C.3 suggested color identification scheme:</b>	Adapters are aqua for 10Gig™ 50/125µm OM3 and OM4 fiber enabling fast, accurate identification of fiber channels for easy moves, adds, and changes

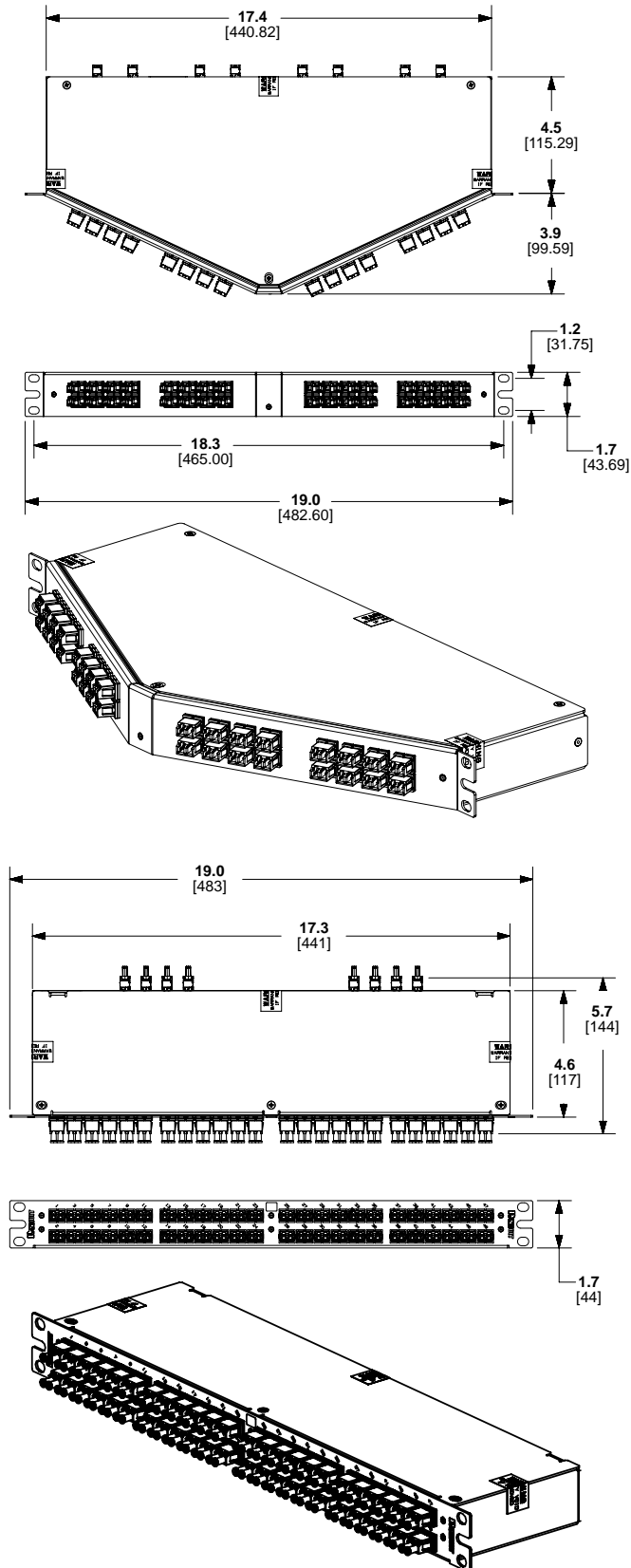
<sup>‡</sup>Cisco and Cisco Systems are registered trademarks of Cisco Technology, Inc.  
<sup>‡‡</sup>Brocade is a registered trademark of Brocade Communications Systems, Inc.  
<sup>\*</sup>MTP is a registered trademark of US Conec Ltd.

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## standards

Meets or exceeds ISO/IEC 11801, TIA/EIA-568-C.3, TIA-604-5 (FOCIS-5), TIC/EIA-568-C.1, RoHS Complaint. Supports IEEE 802.3ae (10 Gigabit Ethernet) and ANSI T11.2 (Fibre Channel) channel and link specifications. MTP\* connector exceeds TIA/EIA-455-21A: 1000 mating cycles (multimode).

## QuickNet™ HDQ series high density fiber optic cassettes part detail



\*MTP is a registered trademark of US Conec Ltd.

# QuickNet™ HDQ Series High Density Fiber Optic Cassettes

## ordering information

High Density QuickNet™ Cassettes – Multimode OM3 and OM4						
Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Switch Application	Fiber Type	Channel Insertion Loss	Return Loss
<b>64-fiber (32-port cassettes)</b>						
F1RBN-6408-10S	Flat	B-type for Brocade <sup>††</sup> Labeling	Brocade <sup>††</sup> Fibre Channel Blades <b>16G FC: FC16-32</b> <b>8G FC: FC8-32E</b> <b>4G FC: FC4-32</b> Brocade <sup>††</sup> Enterprise Class Switch 5100	OM3	0.75 dB Max.	≥26 dB
F1RBO-6408-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1RBN-6408-10S				OM4	0.75 dB Max.	
F1RBO-6408-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1ABN-6408-10S	Angled	B-type for Brocade <sup>††</sup> Labeling		OM3	0.75 dB Max.	
F1ABO-6408-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1ABN-6408-10S				OM4	0.75 dB Max.	
F1ABO-6408-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1RCN-6408-10S	Flat	C-type for Cisco <sup>†</sup> Labeling	OM3	0.75 dB Max.		
F1RCO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.		
F1RCN-6408-10S			OM4	0.75 dB Max.		
F1RCO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.		
F1ACN-6408-10S	Angled	C-type for Cisco <sup>†</sup> Labeling	OM3	0.75 dB Max.		
F1ACO-6408-10S			OM3 Laser-Optimized	0.50 dB Max.		
F1ACN-6408-10S			OM4	0.75 dB Max.		
F1ACO-6408-10S			OM4 Laser-Optimized	0.50 dB Max.		
<b>96-fiber (48-port cassettes)</b>						
F1RBN-9608-10S	Flat	B-type for Brocade <sup>††</sup> Labeling	Brocade <sup>††</sup> Fibre Channel Blades <b>16G FC: FC16-48</b> <b>8G FC: FC8-48E</b> <b>4G FC: FC4-48</b> Brocade <sup>††</sup> Enterprise Class Switches: <b>5300, 6510</b>	OM3	0.75 dB Max.	≥26 dB
F1RBO-9608-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1RBN-9608-10S				OM4	0.75 dB Max.	
F1RBO-9608-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1RCN-9612-10S	Flat	C-type for Cisco <sup>†</sup> Labeling		OM3	0.75 dB Max.	
F1RCO-9612-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1RCN-9612-10S				OM4	0.75 dB Max.	
F1RCO-9612-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1RSN-9612-10S	Flat	S-type for Standard/ Generic Labeling	OM3	0.75 dB Max.		
F1RSO-9612-10S			OM3 Laser-Optimized	0.50 dB Max.		
F1RSN-9612-10S			OM4	0.75 dB Max.		
F1RSO-9612-10S			OM4 Laser-Optimized	0.50 dB Max.		
F1ASN-9612-10S	Angled	S-type for Standard/ Generic Labeling	OM3	0.75 dB Max.		
F1ASO-9612-10S			OM3 Laser-Optimized	0.50 dB Max.		
F1ASN-9612-10S			OM4	0.75 dB Max.		
F1ASO-9612-10S			OM4 Laser-Optimized	0.50 dB Max.		

<sup>†</sup>Cisco and Cisco Systems are registered trademarks of Cisco Technology, Inc.

<sup>††</sup>Brocade is a registered trademark of Brocade Communications Systems, Inc.

# QuickNet™ HDQ Series High Density Fiber Optic Cassettes

## ordering information

### High Density QuickNet™ Cassettes – Multimode OM3 and OM4

Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Switch Application	Fiber Type	Channel Insertion Loss	Return Loss
<b>128-fiber (64-port cassettes)</b>						
F1R BXN-1B08-10S	Flat	B-type for Brocade <sup>##</sup> Labeling	Brocade <sup>##</sup> <b>16G FC: FC16-32</b> <b>8G FC: FC8-32E, FC8-64</b> <b>4G FC: FC4-32</b> Enterprise Class Switches 5100	OM3	0.75 dB Max.	≥26 dB
F1R BXO-1B08-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1R BZN-1B08-10S				OM4	0.75 dB Max.	
F1R BZO-1B08-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1A BXN-1B08-10S	Angled	B-type for Brocade <sup>##</sup> Labeling	Brocade <sup>##</sup> Fibre Channel Blades <b>16G FC: FC16-48</b> <b>8G FC: FC8-48E</b> <b>4G FC: FC4-48</b> Brocade <sup>##</sup> Enterprise Class Switches: <b>5300, 6510</b>	OM3	0.75 dB Max.	
F1A BXO-1B08-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1A BZN-1B08-10S				OM4	0.75 dB Max.	
F1A BZO-1B08-10S				OM4 Laser-Optimized	0.50 dB Max.	

### 144-fiber (72-port cassettes)

F1R SXN-1A12-10S	Flat	S-type for Standard/ Generic Labeling		OM3	0.75 dB Max.	≥26 dB
F1R SXO-1A12-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1R SZN-1A12-10S				OM4	0.75 dB Max.	
F1R SZO-1A12-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1A SXN-1A12-10S	Angled	S-type for Standard/ Generic Labeling		OM3	0.75 dB Max.	
F1A SXO-1A12-10S				OM3 Laser-Optimized	0.50 dB Max.	
F1A SZN-1A12-10S				OM4	0.75 dB Max.	
F1A SZO-1A12-10S				OM4 Laser-Optimized	0.50 dB Max.	
F1A SSA-1A12-LSS*	Angled	S-type for Standard/ Generic Labeling		Signature Core	0.35dB Max.	≥26 dB

\*Shuttered LC adapters

Note: 1) All part numbers ending in "S" indicate Method A Polarity

2) Replace the last character "S" in the part number scheme with "F" for Modified Method A Polarity (flipped-pairs).

The "F" cassette replaces the need for an A-A patch cord in the TIA-568-C.0 specified link, only requiring two A-B patch cords to facilitate the Tx-Rx transmission.

<sup>##</sup>Brocade is a registered trademark of Brocade Communications Systems, Inc.

### High Density QuickNet™ Cassettes – Singlemode OS1/OS2

Part Number	Faceplate Profile	Port Mapping (Labeling Feature)	Switch Application	Fiber Type	Channel Insertion Loss	Return Loss
<b>144-fiber (72-port cassettes)</b>						
F1R S9N-1A12-10S	Flat	S-type for Standard/ Generic Labeling		OS1/OS2 Fiber	1.10 dB Max	≥55 dB
F1R S9N-1A12-10F						
F1A S9N-1A12-10S	Angled					
F1A S9N-1A12-10F						

Singlemode HDQ cassette note: LC adapters facilitate UPC mating. The rear MPO adapters facilitates APC mating. The only polarity available is Method A and Modified Method A (flipped-pairs). Method B is not available and is not compatible with APC polish.

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