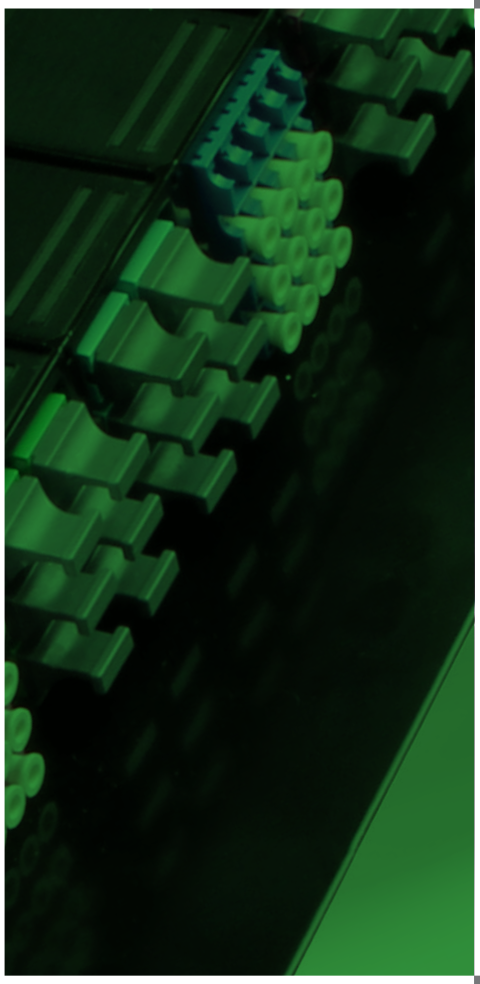


HD8²™

THE CUTTING EDGE JUST GOT SQUARED

HIGH DENSITY FIBER OPTIC
DEPLOYMENT SOLUTION

SAVE TIME, SPACE, MONEY
AND REDUCE dB LOSS

TACREADYDEPLOY.COM

SAVE UP TO 70% INSTALLATION TIME
WITH SNAP-ON PULLING EYE CAP

LOWER dB LOSS WITH REDUCED CONNECTION POINTS

REDUCE DUST AND INCREASE EYE SAFETY WITH OPTIONAL SHUTTERED LC COUPLERS

The new HD8² High Density Fiber Optic Deployment Solution is the patching system that meets these needs. It includes a rack mountable chassis capable of accommodating up to twelve rear entry molded cassettes in a 1U space. The reduced footprint cassettes are completely customizable at the front and rear points of entry, have an internal strain relief ring, and an external **HDReadyPull™ snap-on pulling eye cap** for ease of installation.

Most of today's high density data center "targeted" patching systems have a cassette format attempting to maximize chassis density, but they are not conducive to easy installation and cable routing through existing ladder racks, innerduct, and raised floor systems due to size.

HD8² cassettes are rear entry loaded and can be "hard wired" with the **HDReadyLink™** utilizing terminated optic fiber cable and a Heyco® strain relief. A pulling eye cap facilitates the installation of the cassettes through ladder rack, innerduct, or raised floor applications. The internal strain relief and eye ring are used in conjunction with fiber optic cable Kevlar to provide strength. The cassettes can also be loaded with internal fiber harnesses connected via a separate terminated trunk cable.

HD8²™

HIGH DENSITY
FIBER OPTIC SOLUTION

STREAMLINE YOUR DATA CENTER DESIGN FLOW

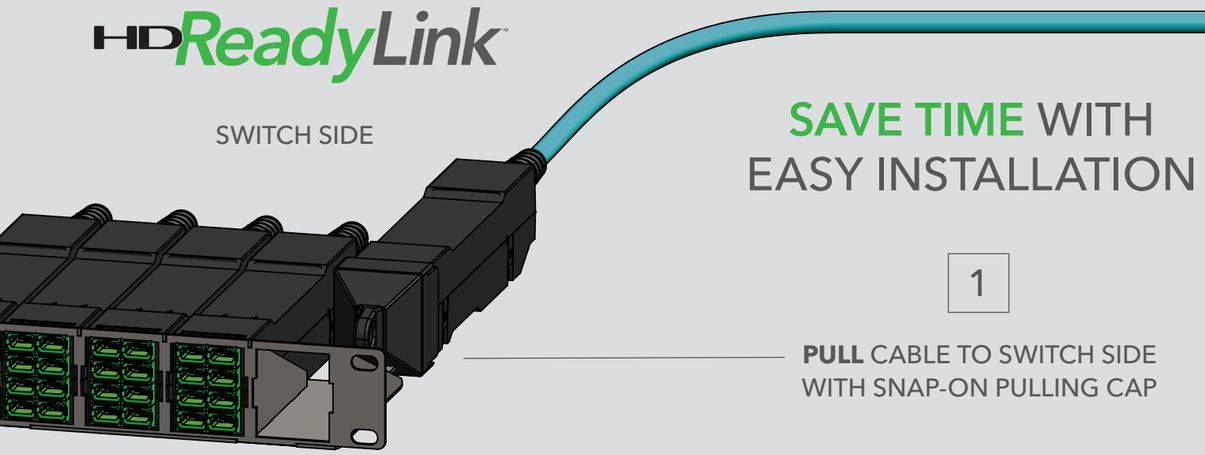
The HD8² is a cost effective ease of use patching system that will work in your overall data center design, or it can be used as a rapid deployment for temporary needs. The ease and flexibility with which this product can be deployed provides a low cost point making it the best value patching system on the market today.

HDReadyLink™ CASSETTE-TO-CASSETTE TRUNK CABLE

Example Shown: 64 Fiber Trunk Cable
(1x) 8 Port/8 Fiber QSFP Cassette to (4x) 8 Port/16 Fiber LC Cassettes

HDReadyLink™

SWITCH SIDE



SAVE TIME WITH EASY INSTALLATION

1

PULL CABLE TO SWITCH SIDE WITH SNAP-ON PULLING CAP

2

REMOVE THE SNAP-ON PULLING CAP

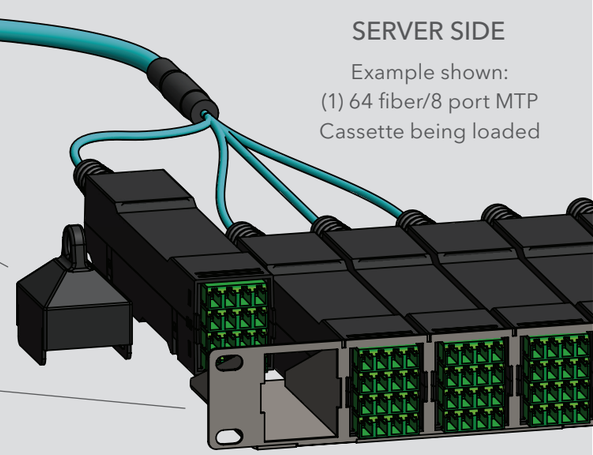
3

PLUG IN AND SNAP CASSETTES INTO CHASSIS (LOCK-IN REAR ENTRY)

INSTALLATION COMPLETE.

SERVER SIDE

Example shown:
(1) 64 fiber/8 port MTP
Cassette being loaded

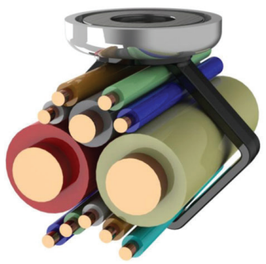


HD8² CHASSIS

HD8² HIGH DENSITY FIBER OPTIC SOLUTION

EXAMPLE:
1U Version PN: HDCE-12-1U
12 Cassettes
(Also available without
front cable tray)

Our HD8² mounts in a 1U (1.75 Inch High) X 19 inch wide rack mount chassis. Each chassis includes a face frame base, a faceplate, spacer guides, movable MagDaddy® wire management, and magnetic label identification tags. The face plate includes alignment slots that work in conjunction with the cassettes alignment tabs used for vertical alignment. The spacer guides work for Horizontal alignment. The face frame base provides a cable management tray and locking tabs to hold the cassette into



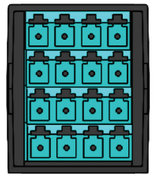
MAGNETIC WIRE HOLDER

PART	DESCRIPTION
	HD8² CHASSIS
HDCE-12-1U-FP	HD8² Rack Mount Enclosure, 1RMS Frame, 12 Cassette Chassis, With Tray & Front Panel, Black
HDCE-12-1U	HD8² Rack Mount Enclosure, 1RMS Frame, 12 Cassette Chassis, With Tray, No Front Panel, Black
HDCE-12-1U-NoTray	HD8² Rack Mount Enclosure, 1RMS Frame, 12 Cassette Chassis, Without Front Tray, No Front Panel, Black
HDWM-5	HD8² Wall Mount Enclosure, 5 Cassette, Black
HDFMB	HD8² Floor Mount Bracket Kit, Converts HDWM-5 to 16.5 Inch X 16.5 Inch Floor Mount Box, Black
HDCMB	HD8² Ceiling Mount Bracket Kit, Converts HDWM-5 to 24 Inch X 24 Inch Floor Mount Box, Black

HIGHEST DENSITY AVAILABLE - 12 CASSETTES PER 1U

BENEFITS:	CASSETTE TYPE	TOTAL FIBER COUNT
	12 Fiber LC Fiber Cassette	144 Fibers
✓ 33% Increase	16 Fiber LC Fiber Cassette	192 Fibers
✓ 2x LC Capacity	24 Fiber CS/SN Fiber Cassette	288 Fibers
✓ 2x LC Capacity	24 Fiber MDC Fiber Cassette	288 Fibers
✓ 33% Increase	32 Fiber MDC/SN Fiber Cassette	384 Fibers
✓ 25% Increase	64 Fiber MTP Fiber Cassette (8 Fiber MTP x 8 Ports)	768 Fibers
✓ 25% Increase	96 Fiber MTP Fiber Cassette (12 Fiber MTP x 8 Ports)	1,152 Fibers
✓ 25% Increase	192 Fiber MTP Fiber Cassette (24 Fiber MTP x 8 Ports)	2,304 Fibers
✓ 25% Increase	128 Fiber MTP Fiber Cassette (16 Fiber MTP x 8 Ports)	1,536 Fibers
✓ 25% Increase	256 Fiber MTP Fiber Cassette (32 Fiber MTP x 8 Ports)	3,072 Fibers

TRADITIONAL 12-FIBER CASSETTE



NEW HD8² 16-FIBER SQUARE CASSETTE

1RMS WITH 12 TRADITIONAL 12-FIBER CASSETTES. 144 FIBERS PER 1U SPACE.

NEW HD8² 1RMS WITH 12 SQUARE 16-FIBER CASSETTES. 192 FIBERS PER 1U SPACE (33% MORE FIBER)

HDReadyLink™
CASSETTE TO CASSETTE

HD8² HIGH DENSITY FIBER OPTIC SOLUTION

EXAMPLE:
96 Fiber Trunk Cable
(1x) 8 Port 12 Fiber MTP Cassette to
(1x) 8 Port 12 Fiber MTP Cassette

BENEFITS:

- Reduce installation time with the **HDReadyPull**™ integrated pulling eye- 55-70% time savings
- Lower db loss because of the reduced connection points
- Optional Shuttered LC couplers reduce dust and increase eye safety

Our HD8² High Density Fiber Optic Patching system is specifically designed for ease of installation and economy of space. The smaller square cassette utilized in our design, versus the typical flat wide cassette, lends itself to a smaller profile. The cassettes come standard with the HDReadyPull™ snap on pulling eye cap. The pulling eye cap snaps onto the front of the cassette and acts as both a pulling eye and a cover to protect the internal connectors. This design simplifies the installation process of pre-terminated trunked cassettes and as a result can reduce dB loss by reducing the number of termination points throughout the cabling design. Older style designs are cumbersome and either do not allow for pre-termination or, if they are pre-terminated cassettes, they are too large to pull through existing infrastructure.

The HD8² takes advantage of Senko's optional dustproof LC adapter with internal shutter in its cassette design. The internal shutter is actuated when you plug the LC patch cable into the adapter. The shutter automatically opens as you insert the LC connector, and closes as you extract it. Due to the special design of the shutter, it will not touch the ferrule end face when you insert a connector, effectively preventing end face damage. The internal shutter prevents eye exposure to lasers and provides protection from dust and other contaminants.

FEATURES:

- Made in USA and TAA compliant
- REACH & RoHS 2 compliant
- MM OM1, OM3, OM4, OM5 & SM OS2
- Bend-insensitive optical fibers
- 250 micron loose tube design allows for higher fiber strand counts in a smaller overall diameter cable
- Flexible and easy to handle
- Lightweight, flexible aramid yarns enhance strength
- When necessary, color-coded binders separate fiber strands into bundles of 12
- 100% interferometry reports
- 100% visual inspection reports
- Total link test testing and labeling available at additional cost

JACKET & GLASS OPTIONS:

- Yellow: OS2
- Orange: *OM1 (*MOQ and not available in BIF glass)
- Aqua: OM3, OM4, OM5
- Note: Erika Violet for OM4 and Lime Green OM5 is available MOQ and lead-time may apply

TRUNK CABLE STANDARDS:

- TIA/EIA-568-C.3,
- ISO/IEC 11801, 2nd edition
- Telcordia GR-409-CORE
- OS2 glass is compliant to ITU-T G.657.A1

TRUNK CABLE APPLICATIONS:

- Yellow: OS2
- Orange: *OM1 (*MOQ and not available in BIF glass)
- Aqua: OM3, OM4, OM5
- Note: Erika Violet for OM4 and Lime Green OM5 are available MOQ and lead-time may apply

HDReadyLink™ CASSETTE-TO-CASSETTE TRUNK CABLE PART NUMBER CONFIGURATION

Example: HD8² Cassette-to-Cassette, OM4 LC Multimode - 8 Port - 16 Fiber to OM4 LC Multimode - 8 Port - 16 Fiber, Straight Through Polarity, 10 Feet

T	–	4	L	C	M	8	0	2	L	C	M	8	0	2	S	0	0	1	0
1	2	3	4			5	6		7			8	9		10	11			

Connector Side A — Connector Side B

OPT	PART	DESCRIPTION
1		TRUNK/CASSETTE TYPE
	T	Cassette-to-Cassette Trunk
	F	Multi-Cassette Fanout
2		CASSETTE CONFIGURATION
	–	(Dash) 1 Cassette to 1 Cassette
	2	2 Cassettes to 2 Cassettes
	3	3 Cassettes to 3 Cassettes
	4	4 Cassettes to 4 Cassettes
3		FIBER TYPE
	1	OM1 Multimode 62.5/125
	3	OM3 Multimode 50/125
	4	OM4 Multimode 50/125
	5	OM5 Multimode 50/125
	9	OS2 Singlemode 9/125
4/7		CASSETTE SIDE A/B CONNECTOR TYPE
	LCM	LC UPC Multimode
	LCS	LC UPC Singlemode
	LCA	LC APC Singlemode
	LSM	LC Shuttered UPC Multimode
	LSS	LC Shuttered UPC Singlemode
	LSA	LC APC Shuttered Singlemode
	CSS	CS Singlemode (*When Available)
	CSM	CS Multimode (*When Available)
	MDS	MDC Singlemode
	MDM	MDC Multimode
	SCM	SC UPC Multimode
	SCS	SC UPC Singlemode
	SCA	SC APC Singlemode
	SCA	SC APC Singlemode
	STM	ST UPC Multimode
	STS	ST UPC Singlemode
	MMS	MTP/UPC (Male) Multimode Standard (.20dB Typical / .60dB Maximum)
	MME	MTP/UPC (Male) Multimode Elite (.10dB Typical / .35dB Maximum)
	MSS	MTP/APC (Male) Singlemode Standard (.25dB Typical / .75dB Maximum)
	MSP	MTP/APC (Male) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)
	FMS	MTP/UPC (Female) Multimode Standard (.20dB Typical / .60dB Maximum)
	FME	MTP/UPC (Female) Multimode Elite (.10dB Typical / .35dB Maximum)
	FSS	MTP/APC (Female) Singlemode Standard (.25dB Typical / .75dB Maximum)
	FSE	MTP/APC (Female) Singlemode Elite (.10dB Typical / .35dB Maximum)
	FSP	MTP/APC (Female) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)

OPT	PART	DESCRIPTION
5/8		CASSETTE SIDE A/B PORT COUNT
	4	4 Port
	6	6 Port
	8	8 Port
	E	2 Port (CS/SN/MDC)
	S	16 Port (SN/MDC)
	Q	8 Port (MDC Only)
	M	MTP Fanout
6/9		CASSETTE SIDE A/B FIBER COUNT PER PORT
	02	2 Fiber
	08	8 Fiber
	12	12 Fiber
	16	16 Fiber*
	20	20 Fiber
	24	24 Fiber
	32	32 Fiber*
10		POLARITY
	S	Straight (Type A)
	R	Rollover (Type B)
	F	Flipped (Type C)
	U	Universal (Type D)
	X	Fusion Splice
11		CABLE LENGTH
	0010	Feet (0001-9999)
	010M	Meters (001M-999M)

*MTP 16 Fiber and 32 Fiber Ferrules will NOT mate with Standard MTP Ferrules

HD8² CASSETTES

HIGH DENSITY FIBER OPTIC SOLUTION

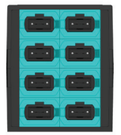
The HD8² Cassettes are available in OM1, OM3, OM4, OM5 and OS2 Glass and FC, FC/APC, ST, SC, SC/APC, LC, LC/APC, CS, SN, MDC, MTP and MTP/APC connector options.

LC 6 PORT

LC 8 PORT

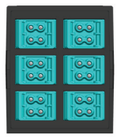
MTP 4 PORT

MTP 6 PORT



MTP 8 PORT

CS 24 PORT



SN AND MDC 24 PORT

SN AND MDC 32 PORT

FRONT FEATURES:

Front panel patching consisting of 12 each of any of the following cassette formats:

- 4 Port Duplex SC fiber optic connectors
- 4 Port Duplex ST fiber optic connectors
- 4 Port Duplex FC fiber optic connectors
- 6 Port Duplex LC
- 8 Port Duplex LC
- 4 Port MTP® feed-through fiber optic connectors
- 6 Port MTP® feed-through fiber optic connectors
- 8 Port MTP® feed-through fiber optic connectors
- *6 Quad Port CS (24 Fiber) fiber optic connectors (*when available)
- SN and MDC (24 and 32 Fiber) fiber optic connectors

REAR FEATURES:

Rear of the cassette options include:

- Small Heyco® Pre-Terminated direct runs of fiber from 6 strands of glass up to 48 strands of glass per cassette.
- Large Heyco® Pre-Terminated direct runs of fiber from 48 strands of glass up to 192 strands of glass per cassette.
- 1 MTP® feed-through connection points
- 2 MTP® feed-through connection points
- Fusion Splice versions are available

*MTP 16 Fiber and 32 Fiber SP will NOT mate with Standard MTP Ferrules

HD8² CASSETTE PART NUMBER CONFIGURATION

Example: HD8² High Density Cassette, Standard Grade, OM4, MTP/UPC (Male) Multimode
Standard 4 Port Front, 8 Fiber Per Port, Rollover, 2 Female 16 Fiber Rear Ports

H	D	C	–	4	M	M	S	4	0	8	R	S	2	F	1	6	
1			2	3	4			5	6		7	8	9	10	11		*

OPT	PART	DESCRIPTION
1		CASSETTE TYPE
	HDC	High Density Cassette
2		CABLE GRADE
	–	(Dash) Standard Grade
	T	Test Grade
3		FIBER TYPE
	1	OM1 Multimode 62.5/125
	3	OM3 Multimode 50/125
	4	OM4 Multimode 50/125
	5	OM5 Multimode 50/125
	9	OS2 Singlemode 9/125
4		CASSETTE FRONT CONNECTOR TYPE
	LCM	LC UPC Multimode
	LCS	LC UPC Singlemode
	LCA	LC APC Singlemode
	LSM	LC Shuttered UPC Multimode
	LSS	LC Shuttered UPC Singlemode
	LSA	LC APC Shuttered Singlemode
	CSS	CS Singlemode (*When Available)
	CSM	CS Multimode (*When Available)
	MDS	MDC Singlemode
	MDM	MDC Multimode
	SCM	SC UPC Multimode
	SCS	SC UPC Singlemode
	SCA	SC APC Singlemode
	SCA	SC APC Singlemode
	STM	ST UPC Multimode
	STS	ST UPC Singlemode
	MMS	MTP/UPC (Male) Multimode Standard (.20dB Typical / .60dB Maximum)
	MME	MTP/UPC (Male) Multimode Elite (.10dB Typical / .35dB Maximum)
	MSS	MTP/APC (Male) Singlemode Standard (.25dB Typical / .75dB Maximum)
	MSP	MTP/APC (Male) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)
	FMS	MTP/UPC (Female) Multimode Standard (.20dB Typical / .60dB Maximum)
	FME	MTP/UPC (Female) Multimode Elite (.10dB Typical / .35dB Maximum)
	FSS	MTP/APC (Female) Singlemode Standard (.25dB Typical / .75dB Maximum)
	FSE	MTP/APC (Female) Singlemode Elite (.10dB Typical / .35dB Maximum)
	FSP	MTP/APC (Female) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)
5		CASSETTE FRONT PORT COUNT
	4	4 Port
	6	6 Port
	8	8 Port
	E	12 Port (MDC/CS/SN)
	S	16 Port (SN/MDC)
	Q	18 Port (MDC Only)

OPT	PART	DESCRIPTION
6		CASSETTE FRONT FIBER COUNT PER PORT
	02	2 Fiber
	08	8 Fiber
	12	12 Fiber
	16	16 Fiber*
	20	20 Fiber
	24	24 Fiber
	32	32 Fiber*
7		POLARITY
	S	Straight (Type A)
	R	Rollover (Type B)
	F	Flipped (Type C)
	U	Universal (Type D)
	X	Fusion Splice
8		FERRULE GRADE
	S	Standard
	E	Elite
	P	Super Elite
9		CASSETTE REAR PORT COUNT
	1	1 Port
	2	2 Port
	4	4 Port
10		CASSETTE REAR PORT GENDER
	M	Male
	F	Female
	X	Fusion Splice
11		CASSETTE REAR FIBER COUNT PER PORT
	08	8 Fiber
	12	12 Fiber
	16	16 Fiber*
	24	24 Fiber
	32	32 Fiber*
	48	48 Fiber (MM Only)
	72	72 Fiber (MM Only)
*		PIGTAIL LENGTH (FUSION SPLICE CASSETTE ONLY)
	N/A	BLANK = N/A
	1	1 Meter
	2	2 Meter
	3	3 Meter
	4	4 Meter
	5	5 Meter

HD8² MONITOR/TAP CASSETTES

HD8² HIGH DENSITY FIBER OPTIC SOLUTION

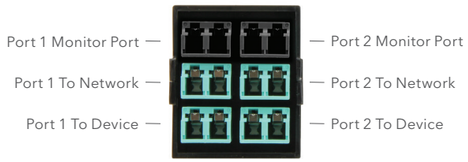
Fiber TAP cassettes provide space for network administrators to plug in monitoring equipment for troubleshooting and monitoring the network. Optical data is split into two parts (called a split ratio) in a specific split ratio for transmission and tapping/monitoring. For instance, if an optical tap cassette has a split ratio of 90:10, the 90% power light will be used for transmission and the 10% part will be used for monitoring. Complete network visibility requires access to all network segments and often requires multiple copies of the same signal to feed a variety of analytic devices.

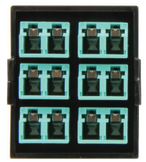
A TAP cassette has multiple tap splitters based on the number of designed outputs. Each signal (per TAP splitter) is split to "live" and "monitoring" output signals at a pre-determined ratio – typically 50/50 or 70/30 (70 live and 30 monitoring). A 70/30 split ratio is generally the preferred method, as it dedicates a higher percentage for network traffic, avoiding any dropped packets. The 70/30 split is most commonly used in 1 Gb/s and 10 Gb/s networks; however, at higher speeds such as 40 Gb/s and 100 Gb/s, the 50/50 ratio is more commonly used in order to meet power budgets.

FEATURES:

- TAPs pass all link traffic for monitoring. Even corrupt data will not be rejected so everything can be seen in real time.
- They are invisible to the network: they place no burden on the network and don't affect any packets or data transmitted through the link.
- There is no programming or switch configuring required with a passive TAP.
- They offer full duplex port monitoring with a transmit and receive path that is scalable at data rates.
- TAPs that are built into the existing patching environment reduce the number of connections required.

M SERIES
MONITOR
CASSETTE



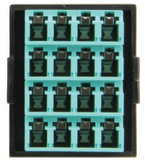


6-Port Network Cassette

6-Port Monitor/Tap Cassette

*S SERIES
MONITOR
CASSETTE

1 MTP to Network Port
1 MTP to Separate Monitor/TAP Cassette



8-Port Network Cassette

8-Port Monitor/Tap Cassette

HD8² TAP CASSETTE PART NUMBER CONFIGURATION

Example: HD8² TAP Cassette, 50/125 OM3, LC/UPC (2) Port, Aqua Duplex, Black Duplex 70/30 TAP Port, Multimode

H	D	T	–	3	L	C	M	2	0	2	M	N	N	X	X	7
1			2	3	4			5	6		7	8	9	10		11

OPT	PART	DESCRIPTION
1		CASSETTE TYPE
	HDT	High Density Tap Cassette
2		CABLE GRADE
	–	(Dash) Standard Grade
3		FIBER TYPE
	1	OM1 Multimode 62.5/125
	3	OM3 Multimode 50/125
	4	OM4 Multimode 50/125
	5	OM5 Multimode 50/125
	9	OS2 Singlemode 9/125
4		CASSETTE FRONT CONNECTOR TYPE
	LCM	LC UPC Multimode
	LCS	LC UPC Singlemode
	LCA	LC APC Singlemode
	LSM	LC Shuttered UPC Multimode
	LSS	LC Shuttered UPC Singlemode
	LSA	LC APC Shuttered Singlemode
	MMS	MTP/UPC (Male) Multimode Standard (.20dB Typical / .60dB Maximum)
	MME	MTP/UPC (Male) Multimode Elite (.10dB Typical / .35dB Maximum)
	MSS	MTP/APC (Male) Singlemode Standard (.25dB Typical / .75dB Maximum)
	MSE	MTP/APC (Male) Singlemode Elite (.10dB Typical / .35dB Maximum)
	MSP	MTP/APC (Male) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)
	FMS	MTP/UPC (Female) Multimode Standard (.20dB Typical / .60dB Maximum)
	FME	MTP/UPC (Female) Multimode Elite (.10dB Typical / .35dB Maximum)
	FSS	MTP/APC (Female) Singlemode Standard (.25dB Typical / .75dB Maximum)
	FSE	MTP/APC (Female) Singlemode Elite (.10dB Typical / .35dB Maximum)
	FSP	MTP/APC (Female) Singlemode SUPER Elite (.10dB Typical / .20dB Maximum)
5		CASSETTE FRONT PORT COUNT
	2	2 Port
	6	6 Port
	8	8 Port

OPT	PART	DESCRIPTION
6		CASSETTE FRONT NETWORK FIBER COUNT PER PORT
	02	2 Fiber
	08	8 Fiber
7		MONITOR CASSETTE TYPE
	M	M Series = Network & Monitor Port Front
	*S	*S Series = Separate Monitor & Network Cassette
8		PORT COUNT CASSETTE REAR
	N	No Rear Port
	1	Monitor/Tap Cassette Only
	2	1 to Network/ 1 to Monitor
9		CASSETTE REAR PORT GENDER
	M	Male
	F	Female
	N	N/A
10		CASSETTE REAR FIBER COUNT PER PORT
	XX	N/A
	08	8 Fiber
	12	12 Fiber
	16	16 Fiber*
11		SIGNAL SPLIT RATIO
	5	50/50
	7	70/30
	9	90/10

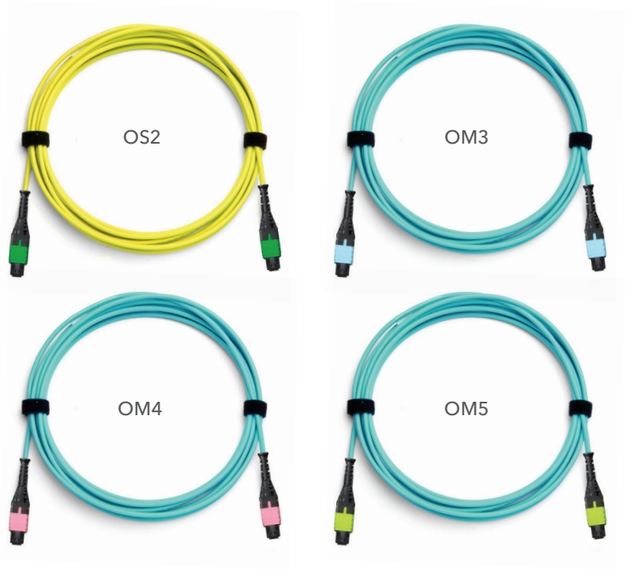
OPTIONAL:
LC Internal Shuttered adapters are available with VFL traceable fiber optic connections, when trying to trace the adapter using a visible light source you can see the red light glowing through the adapter sleeve.

*Requires a Separate Monitor Cassette and Monitor TAP cable

HD8² MTP®
HIGH DENSITY CABLES

HD8² HIGH DENSITY FIBER OPTIC SOLUTION

Take advantage of the most innovative fiber optic technology to date. MTP brand multi-fiber MPO connectors accomplish more with less cable clutter. From 12 to 288 fiber strands, you have the power to tackle a wide variety of applications. Using the MTP brand MPO style connector instantly saves space over standard fiber patch networking installations. This high density solution is a must have in this day and age, where transmission speed and bandwidth demands are at an all-time high and work space availability grows even more limited.

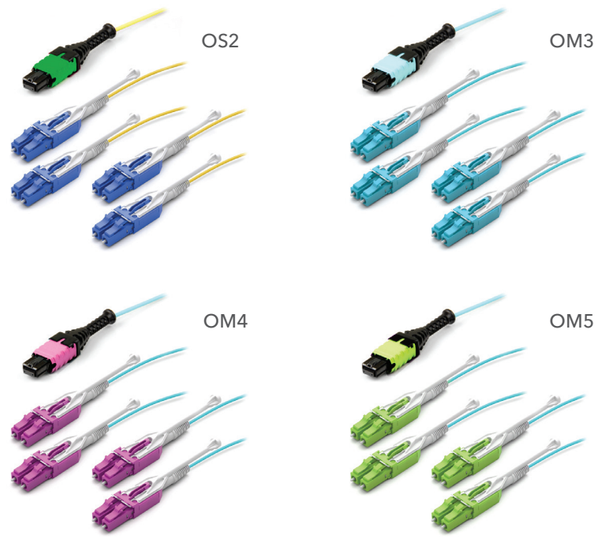


BENEFITS:

- Most innovative fiber optic technology to date
- Connectors accomplish more with less cable clutter
- Connector instantly saves space

HD8² MTP® TO 2.0mm HD UNIBOOT
HIGH DENSITY FAN-OUT CABLES

Enjoy the flexibility and increased bandwidth capability that MTP® HD Fiber Optic Fan-out Cables provide. The cable assemblies are offered in 8-fiber MTP® to 4 Duplexed (HD) and 20-fiber MTP® to 10 Duplexed (HD) configurations. For those needing a space saving alternative to standard fiber cables, the HD Uniboot cables are the right choice for upgrading. As performance demands become more challenging by the day, you need a high density solution that is up to the task. This solution meets and often exceeds industry standards and is 100% Trade Agreements Act (TAA) compliant. The HD8² meets all of the necessary conditions and standards for Federal Government use.



BENEFITS:

- Increased bandwidth capability
- Space saving alternative to standard fiber cables
- 100% Trade Agreements Act (TAA) compliant

HD8² MTP PART NUMBER CONFIGURATION

Example: Fiber Optic Trunk Cable, OM4 Aqua, OFNP, 96 Strand, MTP 12 Fiber Elite, Female, 2 Foot Fanout to MTP 12 Fiber Elite, Male, 4 Foot Fanout, 50 Meter, Pulling Eye A Side, Flipped

H	4	P	9	6	E	2	F	2	E	2	M	4	0	5	0	M	P	F	
1	2	3	4	5		6	7	8		9	10	11					12	13	14

OPT	PART	DESCRIPTION
1		CABLE TYPE
	H	HD8² Trunk Cable
	P	HD8² Patch Cable 2.0mm
	F	Fanout HD8² Pro Boot 2.0mm
2		GLASS TYPE
	1	OM1 Orange
	2	OM2 Orange
	3	OM3 Aqua
	4	OM4 Aqua*
	5	OM5 Aqua*
	9	OS2 Yellow
3		JACKET TYPE
	P	OFNP Plenum
	R	OFNR Riser
	L	LSZH Low Smoke Zero Halogen
4		STRAND COUNT
	08	8 Strand
	12	12 Strand
	16	16 Strand
	24	24 Strand
	32	32 Strand
	36	36 Strand
	72	72 Strand
	96	96 Strand
	E4	144 Strand
	K2	192 Strand
	U8	288 Strand

OPT	PART	DESCRIPTION
5		CONNECTOR SIDE A (PULL SIDE)
	S8	Standard Ferrule 8 Fiber
	E8	Elite Ferrule 8 Fiber
	S2	Standard Ferrule 12 Fiber
	E2	Elite Ferrule 12 Fiber
	S6	Standard Ferrule *16 Fiber
	E6	Elite Ferrule *16 Fiber
	S4	Standard Ferrule 24 Fiber
	E4	Elite Ferrule 24 Fiber
	S3	Standard Ferrule *32 Fiber
	E3	Elite Ferrule 32 Fiber
	48	Standard 48 Fiber (Multimode Only)
	72	Standard 72 Fiber (Multimode Only)
6		SIDE A GENDER
	M	M = Male (with Alignment Pin)
	F	F = Female (without Alignment Pin)
7		SIDE A FANOUT LENGTH
	1	1 Foot
	2	2 Foot
	3	3 Foot
	4	4 Foot
	5	5 Foot
	C	Custom
	–	(Dash) N/A

OPT	PART	DESCRIPTION
8		CONNECTOR SIDE B (REEL SIDE)
	S8	Standard Ferrule 8 Fiber
	E8	Elite Ferrule 8 Fiber
	S2	Standard Ferrule 12 Fiber
	E2	Elite Ferrule 12 Fiber
	S6	Standard Ferrule *16 Fiber
	E6	Elite Ferrule *16 Fiber
	S4	Standard Ferrule 24 Fiber
	E4	Elite Ferrule 24 Fiber
	S3	Standard Ferrule *32 Fiber
	E3	Elite Ferrule 32 Fiber
	48	Standard 48 Fiber (Multimode Only)
	72	Standard 72 Fiber (Multimode Only)
	LD	LC Standard Duplex
	LE	LC USConec ELiMENT™ Uniboot
	LH	LC Senko HD Uniboot
	LS	LC Senko EZ-Flip Uniboot
	CS	CS Senko Connector Option
	MD	MDC Connector Option
	XX	Blunt
9		SIDE B GENDER
	M	Male (with Alignment Pin)
	F	Female (without Alignment Pin)
10		SIDE B FANOUT LENGTH
	1	1 Foot
	2	2 Foot
	3	3 Foot
	4	4 Foot
	5	5 Foot
	C	Custom
	–	(Dash) N/A

OPT	PART	DESCRIPTION
11		OVERALL LENGTH (FANOUT INCLUDED)
	0050	Feet (0001-9999)
	050M	Meters (001M-999M)
12		PULLING EYE OPTION
	–	(Dash) No Pulling Eye
	P	Pulling Eye on Side A
	B	Pulling Eye on Both Sides

OPT	PART	DESCRIPTION
13		POLARITY
	S	Straight (Type A)
	R	Rollover (Type B Cross)
	F	Flipped (Type C Cross Pairs)
	U	Universal (Type D)
	C	Custom
14		SPECIAL OPTIONS
	V	Violet Jacket OM4
	L	Lime Green Jacket OM5

HD8² FIBER OPTIC CONNECTORS

HD8²™
HIGH DENSITY FIBER OPTIC SOLUTION

MTP® CONNECTORS

The HD8² utilizes US Conec MTP® Elite/Super Elite multi-fiber ferrules. High density; fiber pitch: 0.25mm. These durable, composite, Polyphenylene Sulfide (PPS) based thermoplastic ferrules are available with up to 72 fiber holes that terminate 125 micrometer optical fiber. The alignment mechanism consists of two stainless steel guide pins that fit into precisely molded alignment holes. The ferrules are used in conjunction with US Conec's industry hailed, MTP® brand, MPO type connectors. Fiber is secured to the ferrules with an optical connector grade thermal cure epoxy. US Conec's highly stable, PPS material allows preparation of fiber tip protrusion with reduced polishing time and force resulting in superior endface geometry control. US Conec's MT ferrule is compliant with IEC Standard 61754-5.

BENEFITS:

- Consistent optical performance for multimode (flat protruded polish) and single-mode (angled protruded polish)
- Extremely low hygroscopic material for exceptional environmental stability
- Molded indicaters for fiber type and ferrule grade
- Multimode Connectors Available in – 8 Fiber, 12 Fiber, 16 Fiber, 24 Fiber, 32 Fiber, 48 Fiber & 72 Fiber
- Singlemode Connectors Available in – 8 Fiber, 12 Fiber, 16 Fiber, 24 Fiber & *32 Fiber (*Coming Soon)
- Available in Standard, Elite and *Super Elite (*Singlemode Only)

PREMIUM GRADE SINGLE FIBER CONNECTORS

The US Conec ELiMENT™ Duplex LC Uniboot Connector is a high performance two-in-one LC connector that provides quick and easy toolless polarity reversal. The Duplex LC Uniboot reduces internal fiber damage by limiting fiber rotation to 180 degrees while eliminating exposed fibers during polarity reversal. The low profile push-pull housing is designed for high density applications. When maximizing panel density, the adapters can be stacked and the low profile connector can be disconnected by grasping the sides of the housing or by using an optional push-pull tab.

BENEFITS:

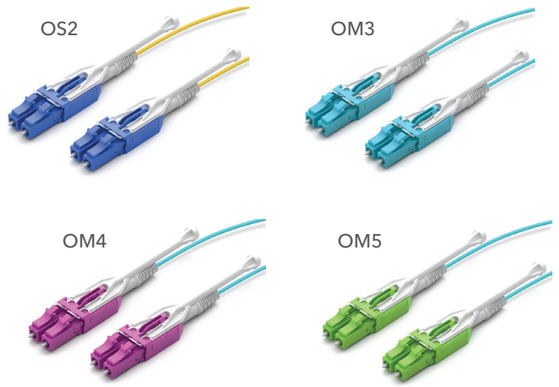
- Solid robust body improves mechanical strength and designed to exceed the Verizon FCO TPR 9409 requirement.
- Premium Low loss Ferrules

FIBER OPTIC CONNECTOR PERFORMANCE

	*Standard Multimode MTP® Ferrule	Elite Multimode MTP® Ferrule	Premium Multimode Single Ferrule (ST/SC/LC)	Standard Singlemode MTP® Ferrule	Elite Singlemode MTP® Ferrule	Super-Elite Singlemode MTP® Ferrule	Premium Singlemode Single UPC Ferrule (ST/SC/LC)	Premium Singlemode Single APC Ferrule (ST/SC/LC)
Insertion Loss (dB)	0.20 Typical 0.60 Max	0.10 Typical 0.35 Max	0.10 Typical 0.20 Max	0.25 Typical 0.75 Max	0.10 Typical 0.35 Max	0.10 Typical 0.20 Max	0.10 Typical 0.20 Max	0.10 Typical 0.25 Max
Optical Return Loss	>20dB	>20dB	>20dB	>60dB (8° Angle Polish)	>60dB (8° Angle Polish)	>60dB (8° Angle Polish)	>60dB	>60dB (8° Angle Polish)

HD8² 2.0mm UNIBOOT HIGH DENSITY PATCH CABLES

Available in OM3, OM4, OM5, and OS2 our HD Patch Cables utilize a flexible "pull-tab" allowing the connector to be disengaged easily from densely loaded panels without need for special tools. Included with each patch cable are (3) complete sets of HD Pull-Tab Lengths (44mm/64mm/84mm). Jacket is available in 2.0mm OD.



STANDARD COLOR OPTIONS:

- OS2 – Yellow Jacket, UPC-Blue Connectors
- OS2 –Yellow Jacket, APC-Green Connectors
- OM3 – Aqua Jacket, Aqua Connectors
- *OM4– Aqua Jacket, Erika Violet Connectors
- *OM5– Aqua Jacket, Lime Green Connectors

(* Erika Violet Jacket for OM4 and Lime Green Jacket for OM5 is available. MOQ and Lead-Time may apply.)

Example: Uniboot Duplex, LC-LC, 9/125 OS2 Singlemode, 1M, Riser, 3.0mm, Standard Color

8	9	1	8	1	8	0	S	2	D	0	0	1	M	R	3			
1		2		3		4			5	6			7	8	9	10		

OPT	PART	DESCRIPTION
1		CABLE TYPE
	89	Uniboot Duplex Cable
2		CONNECTOR A
	18	LC
	10	SN
	12	CS
	11	MDC
3		CONNECTOR B
	18	LC
	14	ST
	15	SC
	17	FC
	16	MTRJ
	12	CS
	11	MDC
	10	SN

OPT	PART	DESCRIPTION
4		FIBER GLASS TYPE
	1=OM1	OM1 Multimode 62.5/125
	3=OM3	OM3 Multimode 50/125
	4=OM4	OM4 Multimode 50/125
	5=OM5	OM5 Multimode 50/125
	9=OS2	OS2 Singlemode 9/125
5		CONFIGURATION
	S	Simplex
	D	Senko HD Uniboot
	U	Senko EZ-Flip Uniboot*
	E	USConec ELiMENT™ Uniboot*
6		LENGTH
	001	001-99
7		UNIT OF MEASURE
	M	Meter
	F	Feet
	I	Inch

OPT	PART	DESCRIPTION
8		JACKET TYPE
	R	Riser
	P	Plenum
	Z	Low Smoke Zero Halogen
9		JACKET DIAMETER
	1	1.8mm
	2	2.0mm
	3	3.0mm
10		SPECIAL OPTIONS**
	BK	Black
	BL	Blue
	GY	Gray
	GR	Green
	PL	Purple
	RD	Red
	WH	White

* Field Polarity Switching
**Special order, non-standard color options.

HD8²

Chameleon
adapt. perform. deliver.

LIGHTWAVE

Tactical Deployment Systems LLC is a global supplier of fiber optic products which are used in today's demanding networks and communications markets. LightWave products are built to meet those ever-greater speeds and low costs that your customers demand.

We have been able to strike a balance between in-house quick turn manufacturing and strategic alliances with outsource manufacturing capabilities. That balance enables Tactical Deployment Systems to compete globally and meet its customers' high-volume, high-quality requirements.

Through authorized distributors, Tactical Deployment Systems services its world wide customer base. Whether you need specifications for standard fiber products or a turnkey solution to engineer and produce your custom requirements, our sales and support team is here to help you through the design process right up to high volume manufacturing.

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