

Data Center Optical Distribution Frame with Plug-and-Play Cassettes

CommScope's Data Center Optical Distribution Frame (ODF) with plug-and-play (MPO) cassettes is the highest density optical distribution frame solution available today. It efficiently manages up to 1,728 fiber terminations using the 144-position block (or 2,304 using the 192-position block) in a single frame in either a cross-connect or inter-connect design.

Its patented design incorporates the fundamentals of cable management while using the industry's highest fiber count MPO plug-and-play cassettes.

Applications

- Provides managed high-density solution for optical distribution frames in the main distribution area of the data center
- Can be successfully deployed in the cross-connect architecture recommended in TIA-942, and still provide clear, managed pathways for fiber

Features

- Rapid installation of new deployments
- MPO trunks can enter rack from either under-floor or overhead
- Slack storage included in each rack allows for the use of a single jumper length
- On frame jumper routing provides bend radius and physical protection with slack easily and intuitively managed

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Polarity Made Simple

One of the most common questions regarding MPO deployments is how the system design addresses the polarity issue of the fiber. CommScope's system employs the recommendations made in TIA standard TIA-568-C.3.

Plug-and-play trunks use a key up/key down fiber array as noted in TIA-568-C.3. The plug-and-play cassettes are wired straight through. In addition, duplex jumpers have a duplex clip that is easily removed for polarity changes in the field.

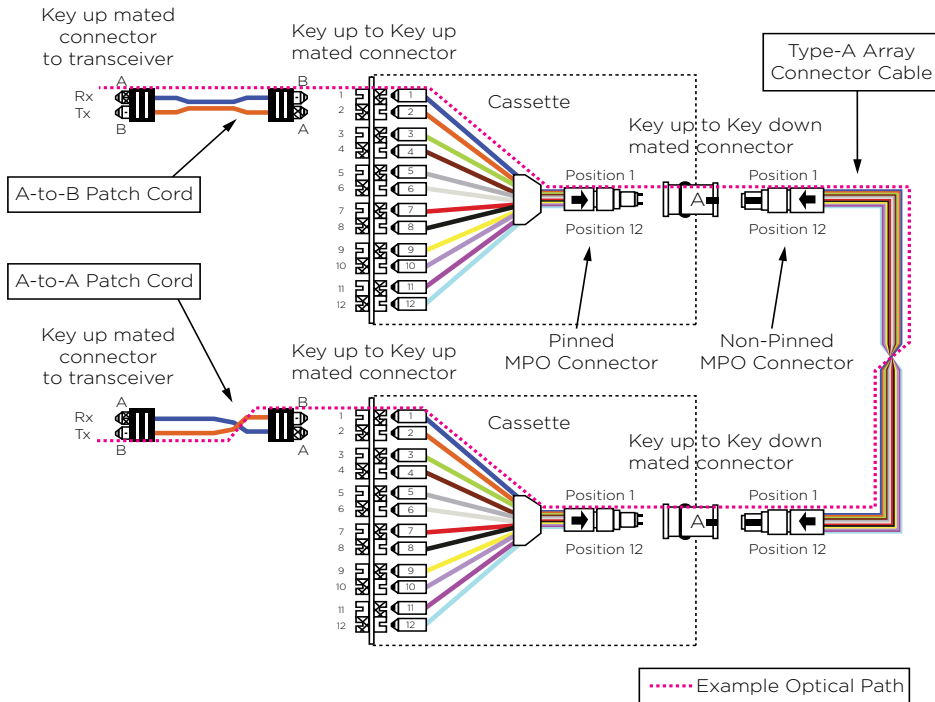
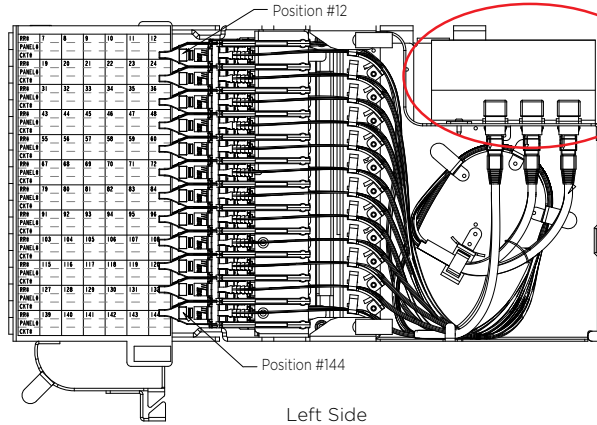


Figure 1: Connectivity method A for duplex signals

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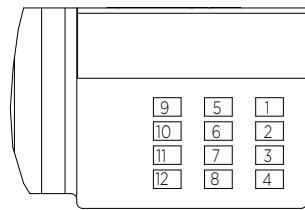
Specifications



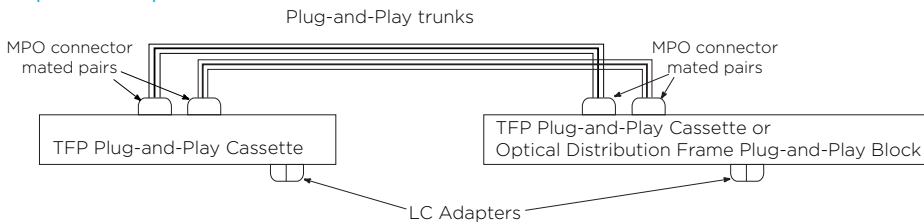
CONNECTION TABLE 144 POS												FIBER COLOR
1-48			49-96			97-144						
FIBER BUNDLE NUMBER												
1	2	3	4	5	6	7	8	9	10	11	12	
T/B POSITION												
1	13	25	37	49	61	73	85	97	109	121	133	BLUE
2	14	26	38	50	62	74	86	98	110	122	134	ORANGE
3	15	27	39	51	63	75	87	99	111	123	135	GREEN
4	16	28	40	52	64	76	88	100	112	124	136	BROWN
5	17	29	41	53	65	77	89	101	113	125	137	SLATE
6	18	30	42	54	66	78	90	102	114	126	138	WHITE
7	19	31	43	55	67	79	91	103	115	127	139	RED
8	20	32	44	56	68	80	92	104	116	128	140	BLACK
9	21	33	45	57	69	81	93	105	117	129	141	YELLOW
10	22	34	46	58	70	82	94	106	118	130	142	VIOLET
11	23	35	47	59	71	83	95	107	119	131	143	ROSE
12	24	36	48	60	72	84	96	108	120	132	144	AQUA

Top View

Fiber Bundle/MPO Connector Locations



Optical Specifications



	850nm	1310nm
Module Loss (measured through MPO mated pair to LC adapter)		
Insertion Loss		
Maximum	0.7 dB	0.55 dB
Typical	0.25 dB	0.25 dB
Return Loss		
Maximum	—	-55 dB
Trunk Loss (per meter)		
Maximum	0.0035 dB	0.001 dB
Channel/Link Loss with 31 meter trunk (100feet) (as in figure above)		
Maximum	1.3085 dB	1.131 dB
Typical	0.6085 dB	0.531 dB

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Environmental Characteristics

Storage Temperature:	-40° to 70° C (-40° to 158° F)
Operating Temperature:	0° to 70° C (32° to 158° F)
Installation Temperature:	0° to 70° C (32° to 158° F)

Ordering Information

Description	Catalog Number
144-position MPO – LC Blocks; Black	
OM3 - 50/125 LOMMF 300m; 12 MPO to 144 LC (aqua) adapters	
LEFT block orientation	NGFB-MPMLOC112
RIGHT block orientation	NGFB-MPMROC112
OM4 - 50/125 LOMMF 550m; 12 MPO to 144 LC (aqua) adapters	
LEFT block orientation	NGFB-MPMLOC412
RIGHT block orientation	NGFB-MPMROC412
Singlemode – 12 MPO to 144 LC adapters	
LEFT block orientation	NGFB-MPMLOK512
RIGHT block orientation	NGFB-MPMROK512
192-position MPO – LC Blocks; Black	
OM3 - 50/125 LOMMF 300m; 16 MPO to 192 LC (aqua) adapters	
LEFT block orientation	NGFB-MPQLOC116
RIGHT block orientation	NGFB-MPQROC116
OM4 - 50/125 LOMMF 550m; 16 MPO to 192 LC (aqua) adapters	
LEFT block orientation	NGFB-MPQLOC416
RIGHT block orientation	NGFB-MPQROC416
Singlemode; 16 MPO to 192 LCUPC (blue) adapters	
LEFT block orientation	NGFB-MPQLOK516
RIGHT block orientation	NGFB-MPQROK516
Rack	
30" x 24" x 7 ft frame with shorter MPO block mounting brackets; black	NGFB-MDF7A144-30
Rack Accessories	
ISO Pad	NGF-ACCISOP30X24
End Guard	NGFB-ACCEGD007
End Guard ISO Pad	NGF-ACCISOPEG24
Rack Installation Kit Raised Floor	FDG-ACC146



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