



CORNING

DELLEMC

Choosing the Correct Bill-of-Material (BOM) For Your Cabling Scenarios

This document will serve as a guide to select the best Corning Optical Communications bill-of-materials (BOM) for your structured cabling application (scenario).

Dell EMC transceiver connector types:

Dell EMC optical transceiver modules have different connector types (See Dell EMC Networking optics and cables specification sheet).

Most common are the duplex LC connectors which enable communications over two parallel single-mode or multimode fibers. Duplex LC connectors are found on SFP+, SFP28, QSFP+, QSFP28, and QSFP56-DD optical transceiver modules.

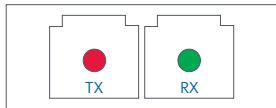
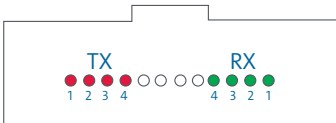
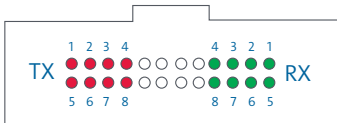
Also common are MPO-12 multifiber connectors, which enable communications over eight parallel single-mode or multimode fibers. MPO-12 connectors are found on QSFP+, QSFP28, and QSFP56-DD optical transceiver modules.

Less common are the MPO-12DD connectors which enable communications over sixteen parallel multimode fibers. (DD stands for double density). MPO-12DD connectors are found on 2 × 40GbE QSFP28-DD-2SR4, 2 × 100GbE QSFP28-DD-2SR4, and 400GbE QSFP56-DD-SR8 optical transceiver modules only.

Corning EDGE8 solution supports both single-mode and multimode optical modules using the Duplex LC, MPO-12 and MPO-12DD optical interfaces based on the use of two, eight, and sixteen fibers.

The following is a partial list of Dell EMC transceivers by connector type:

Duplex LC		MPO-12		MPO-12DD	
SFP-10G-USR	multimode	QSFP-40G-SR4	multimode	Q28DD-80G-2SR4	multimode
SFP-10G-SR	multimode	QSFP-40G-PSM4-LR	single-mode	Q28DD-200G-2SR4	multimode
SFP-10G-LR	single-mode	Q28-100G-SR4	multimode	Q56DD-400G-SR8	multimode
SFP28-25G-SR	multimode	Q28-100G-ESR4	multimode		
SFP28-25G-ESR	multimode	Q56DD-400G-SR4.2	multimode		
SFP56-50G-SR	multimode	Q56DD-400G-EDR4	single-mode		
Q28-100G-BIDI	multimode	Q56DD-400G-DR4	single-mode		
Q28-100G-FR	single-mode				

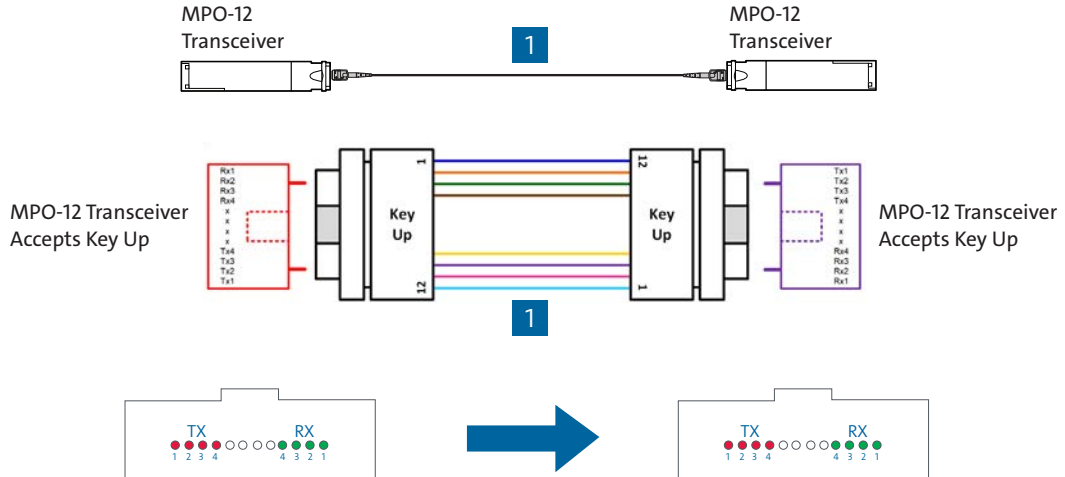
		
---	---	---

Notes:

Single-mode fiber type: Corning® SMF-28® Ultra Optical Fiber

Multimode fiber type: Corning® ClearCurve® OM4

Scenario 1: MPO-12 to MPO-12 Local



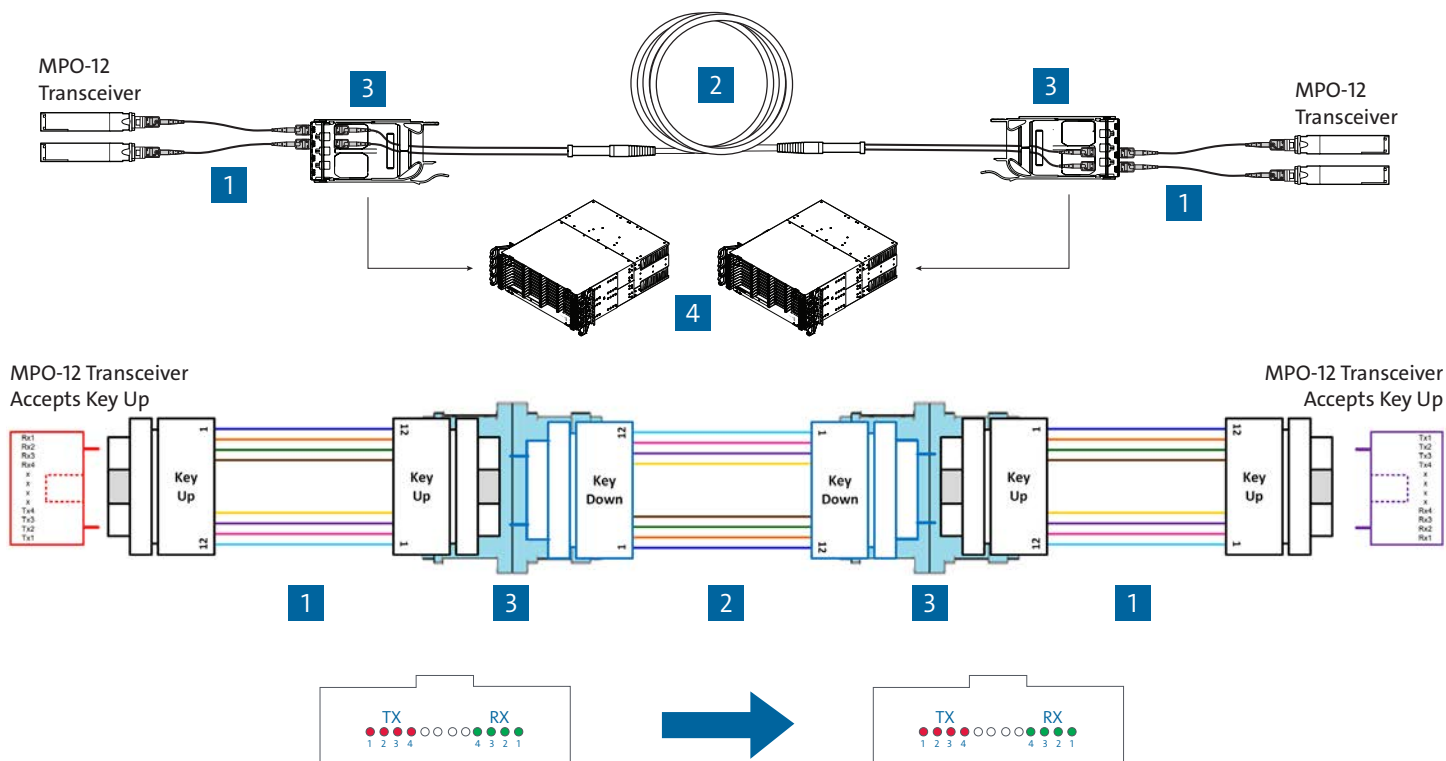
Near End Optic (Left)		Far End Optic (Right)	
QSFP-40G-PSM4-LR	single-mode	1 X QSFP-40G-PSM4-LR	single-mode
Q56DD-400G-EDR4	single-mode	1 X Q56DD-400G-EDR4	single-mode
Q56DD-400G-DR4	single-mode	1 X Q56DD-400G-DR4	single-mode
QSFP-40G-SR4	multimode	1 X QSFP-40G-SR4	multimode
Q28-100G-SR4	multimode	1 X Q28-100G-SR4	multimode
Q28-100G-ESR4	multimode	1 X Q28-100G-ESR4	multimode
Q56DD-400G-SR4.2-ON	multimode	1 X Q56DD-400G-SR4.2-ON	multimode

Table 1: Direct Connect – MPO-12 to MPO-12 Application

Item	OM4 Part Number (Americas)	OM4 Part Number (EMEA and APJ)	OS2 Part Number (Americas)	OS2 Part Number (EMEA and APJ)	Description
1	JE6E608QE8-NBxxxM	JE6E608QE8-NBxxxM	JE8E808GE8-NBxxxM	JE8E808GE8-NBxxxM	EDGE8® MPO Patch Cord, 8 F, MPO-12 (unpinned) to MPO-12 (unpinned), Type-B polarity, 2.0 mm cable, xxxM

Americas uses plenum cable and EMEA/APJ uses LSZH™ cable.
Multiple lengths are available for patch cords.

Scenario 2: MPO-12 to MPO-12 Across DC with Trunk



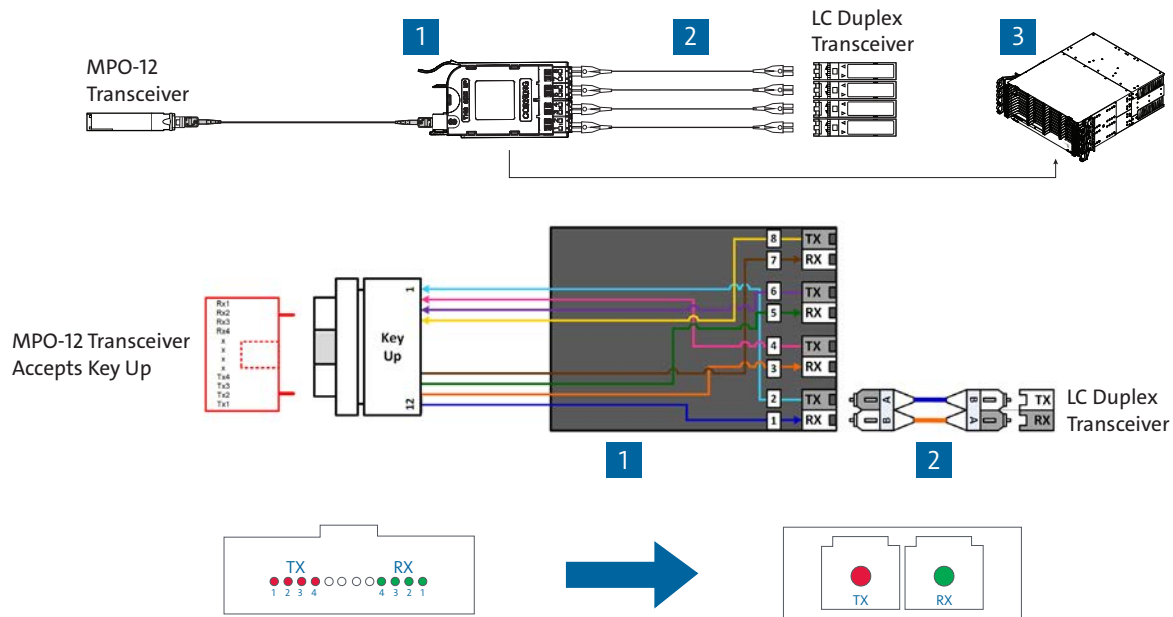
Near End Optic (Left)		Far End Optic (Right)	
QSFP-40G-PSM4-LR	single-mode	1 X QSFP-40G-PSM4-LR	single-mode
Q56DD-400G-EDR4	single-mode	1 X Q56DD-400G-EDR4	single-mode
Q56DD-400G-DR4	single-mode	1 X Q56DD-400G-DR4	single-mode
QSFP-40G-SR4	multimode	1 X QSFP-40G-SR4	multimode
Q28-100G-SR4	multimode	1 X Q28-100G-SR4	multimode
Q28-100G-ESR4	multimode	1 X Q28-100G-ESR4	multimode
Q56DD-400G-SR4.2-ON	multimode	1 X Q56DD-400G-SR4.2-ON	multimode

Table 2: Interconnect – MPO-12 to MPO-12 Application

Item	OM4 Part Number (Americas)	OM4 Part Number (EMEA and APJ)	OS2 Part Number (Americas)	OS2 Part Number (EMEA and APJ)	Description
1	JE6E608QE8-NBxxxM	JE6E608QEZ-NBxxxM	JE8E808GE8-NBxxxM	JE8E808GEZ-NBxxxM	EDGE8® MPO Patch Cord, 8 F, MPO-12 (unpinned) to MPO-12 (unpinned), Type-B polarity, 2.0 mm cable, xxxM
2	GE5E516QPNDUxxxM	GE5E516QLZDDUxxxM	GE7E716GPNDUxxxM	GE7E716GLZDDUxxxM	EDGE8 MPO Trunk, 16 F, MPO-12 (pinned) to MPO-12 (pinned), Type-B polarity, pulling grip on first end only, 7.0 mm cable, xxxM
3	EDGE8-CP32-V3	EDGE8-CP32-V3	EDGE8-CP32-V1	EDGE8-CP32-V1	EDGE8 4-Port MPO Connector Panel
4	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Americas uses plenum cable and EMEA/APJ uses LSZH™ cable.
 Additional fiber counts and multiple lengths are available for trunks and patch cords.
 Please contact your regional Corning Technical Support Line with any questions.

Scenario 3: MPO-12 to LC Duplex Local



Near End Optic (Left)		Far End Optic (Right)	
QSFP-40G-PSM4-LR	single-mode	4 X SFP-10G-LR	single-mode
Q56DD-400G-DR4	single-mode	4 X Q28-100G-FR	single-mode
QSFP-40G-SR4	multimode	4 X SFP-10G-USR 4 X SFP-10G-SR	multimode
Q28-100G-SR4	multimode	4 X SFP28-25G-SR 4 X SFP28-25G-ESR	multimode
Q28-100G-ESR4	multimode	4 X SFP28-25G-ESR	multimode
Q56DD-400G-SR4.2-ON	multimode	4 X Q28-100G-BIDI-ON	multimode

Table 3: Port Breakout – MPO-12 to LC Duplex

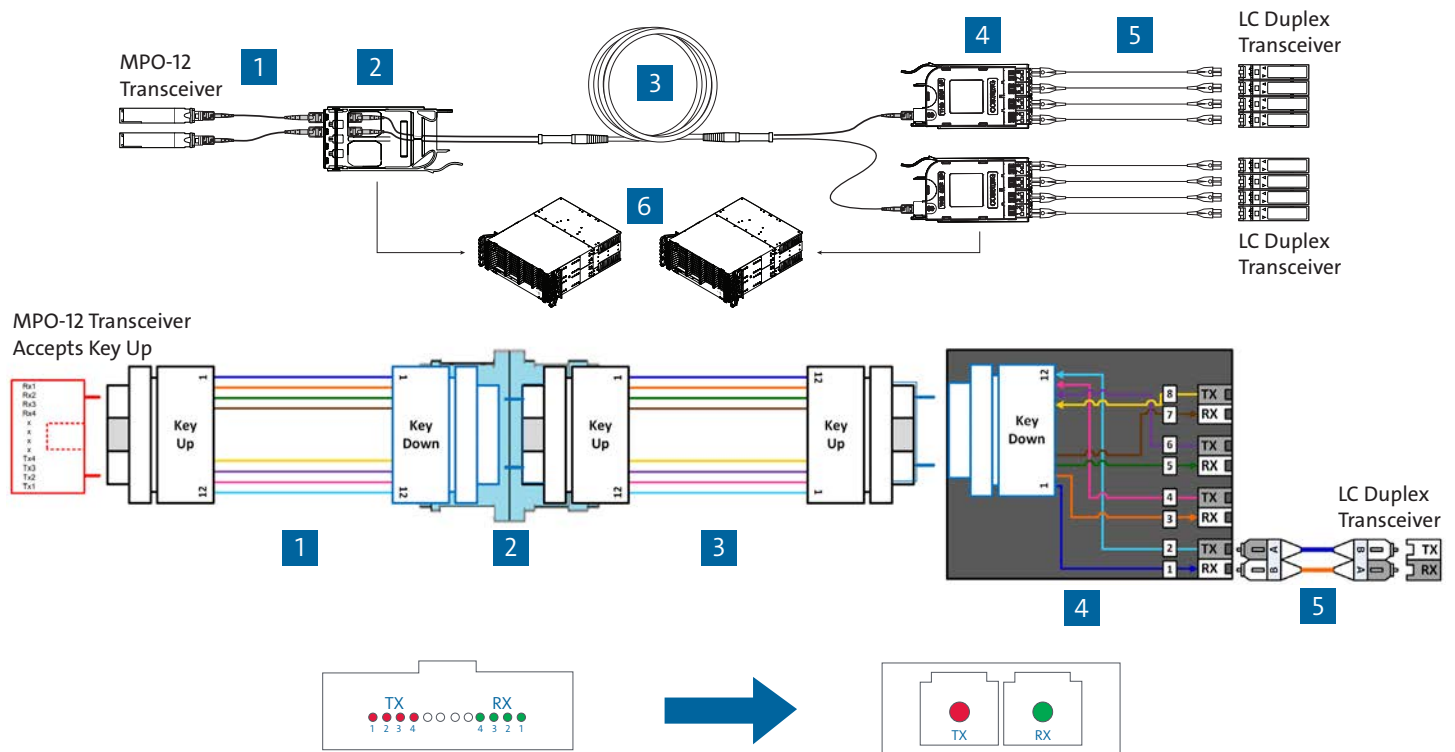
Item	OM4 Part Number (Americas)	OM4 Part Number (EMEA and APJ)	OS2 Part Number (Americas)	OS2 Part Number (EMEA and APJ)	Description
1	ECM8-05E6-QE8B-xxxM	ECM8-05E6-QEZB-xxxM	ECM8-04E8-GE8B-xxxM	ECM8-04E8-GEZB-xxxM	EDGE8 [®] Port Breakout Module, LC duplex to MPO-12 (unpinned), 8 F, universal polarity
2	797902QD120xxxM	E797902QNZ20xxxM	787802GD120xxxM	E787802GNZ20xxxM	EDGE [™] Uniboot LC Patch Cord, 2 F, LC UPC to LC UPC, 2.0 mm cable, xxxM
3	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Americas uses plenum/riser cable and EMEA/APJ uses LSZH[™] cable.

Multiple lengths available for patch cords. The EDGE8 Port Breakout Module has a tail length of maximum 25 meters.

Please contact your regional Corning Technical Support Line with any questions.

Scenario 4: MPO-12 to LC Duplex Across DC with Trunk



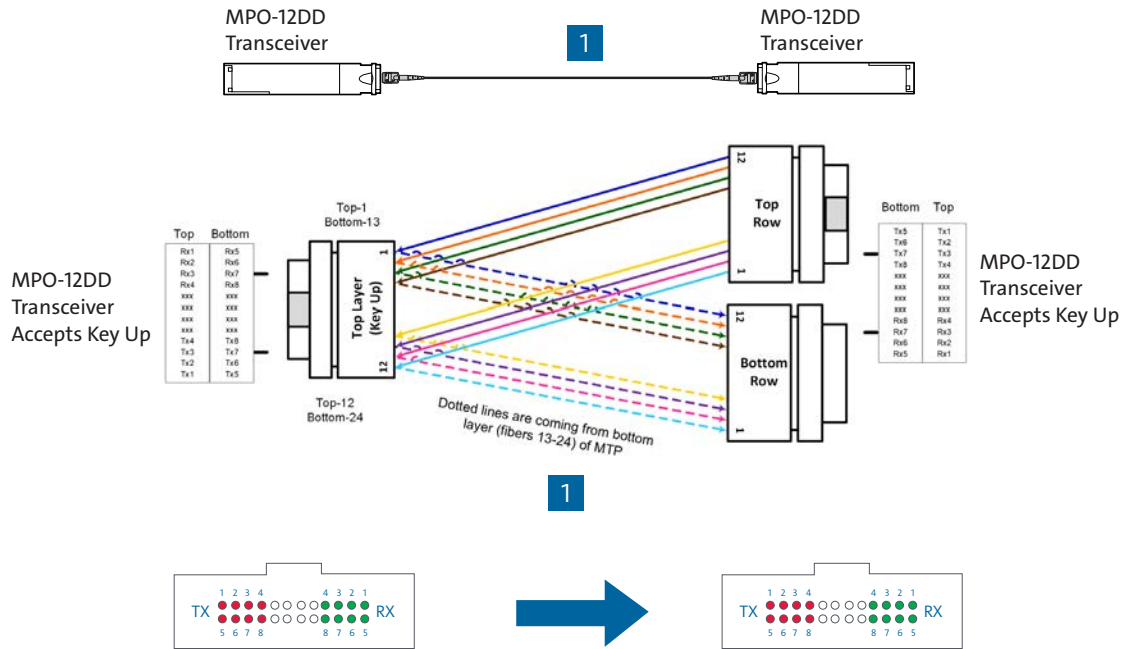
Near End Optic (Left)		Far End Optic (Right)	
QSFP-40G-PSM4-LR	single-mode	4 X SFP-10G-LR	single-mode
Q56DD-400G-DR4	single-mode	4 X Q28-100G-FR	single-mode
QSFP-40G-SR4	multimode	4 X SFP-10G-USR 4 X SFP-10G-SR	multimode
Q28-100G-SR4	multimode	4 X SFP28-25G-SR 4 X SFP28-25G-ESR	multimode
Q28-100G-ESR4	multimode	4 X SFP28-25G-ESR	multimode
Q56DD-400G-SR4.2-ON	multimode	4 X Q28-100G-BIDI-ON	multimode

Table 4: Port Breakout – MPO-12 to LC Duplex

Item	OM4 Part Number (Americas)	OM4 Part Number (EMEA and APJ)	OS2 Part Number (Americas)	OS2 Part Number (EMEA and APJ)	Description
1	JE6E608QE8-NAxxxM	JE6E608QE8-NAxxxM	JE8E808GE8-NAxxxM	JE8E808GEZ-NAxxxM	EDGE8® MPO Patch Cord, 8 F, MPO-12 (unpinned) to MPO-12 (unpinned), Type-A polarity, 2.0 mm cable, xxxM
2	EDGE8-CP32-V3	EDGE8-CP32-V3	EDGE8-CP32-V1	EDGE8-CP32-V1	EDGE8 4-Port MPO Connector Panel
3	GE5E516QPNDUxxxM	GE5E516QLZDDUxxxM	GE7E716GPNDUxxxM	GE7E716GLZDDUxxxM	EDGE8 MPO Trunk, 16 F, MPO-12 (pinned) to MPO-12 (pinned), Type-B polarity, pulling grip on first end only, 7.0 mm cable, xxxM
4	ECM8-UM08-05-E6Q-ULL	ECM8-UM08-05-E6Q-ULL	ECM8-UM08-04-E8G-ULL	ECM8-UM08-04-E8G-ULL	EDGE8 Module, LC duplex to MPO-12 (unpinned), 8 F, universal polarity
5	797902QD120xxxM	E797902QNZ20xxxM	787802GD120xxxM	E787802GNZ20xxxM	EDGE™ Uniboot LC Patch Cord, 2 F, LC UPC to LC UPC, 2.0 mm cable, xxxM
6	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Americas uses plenum cable and EMEA/APJ uses LSZH™ cable.
 Additional fiber counts and multiple lengths are available for trunks and patch cords.
 Please contact your regional Corning Technical Support Line with any questions.
 Corning Optical Communications

Scenario 5: MPO-12DD to MPO-12DD Local



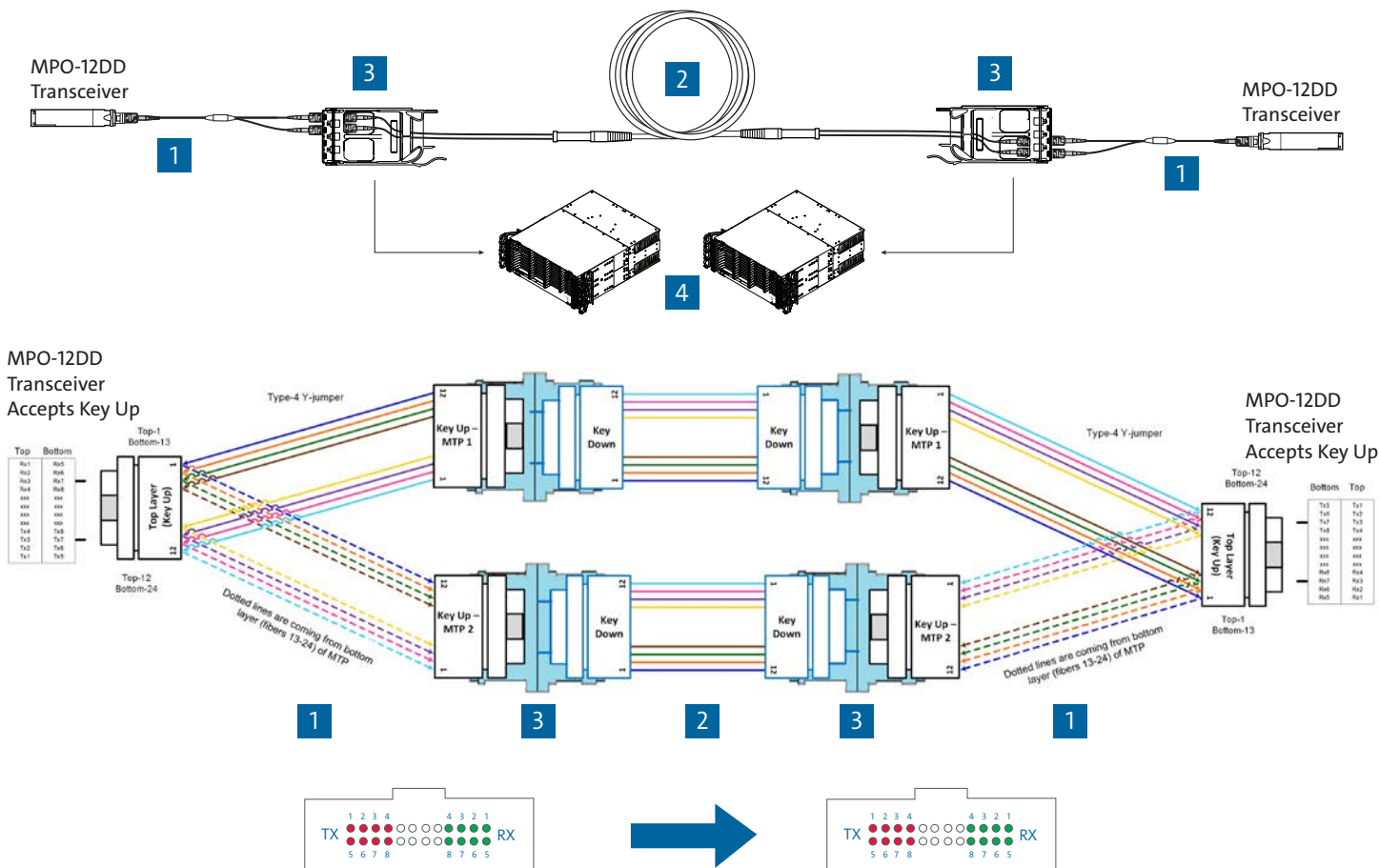
Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	1 X Q28DD-80G-2SR4	multimode
Q28DD-200G-2SR4	multimode	1 X Q28DD-200G-2SR4	multimode
Q56DD-400G-SR8	multimode	1 X Q56DD-400G-SR8	multimode

Table 5: Direct Connect – MPO-12DD to MPO-12DD

Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH™)	Description
1	JA6A616QPH-NDxxxM	JA6A616QLZ-NDxxxM	EDGE8® 16 F Patch Cord, MPO-12DD (unpinned) to MPO-12DD (unpinned), SR8 polarity, 3.1 mm cable, xxxM

Multiple lengths available for patch cords.

Scenario 6: MPO-12DD to MPO-12DD Across DC with Trunk



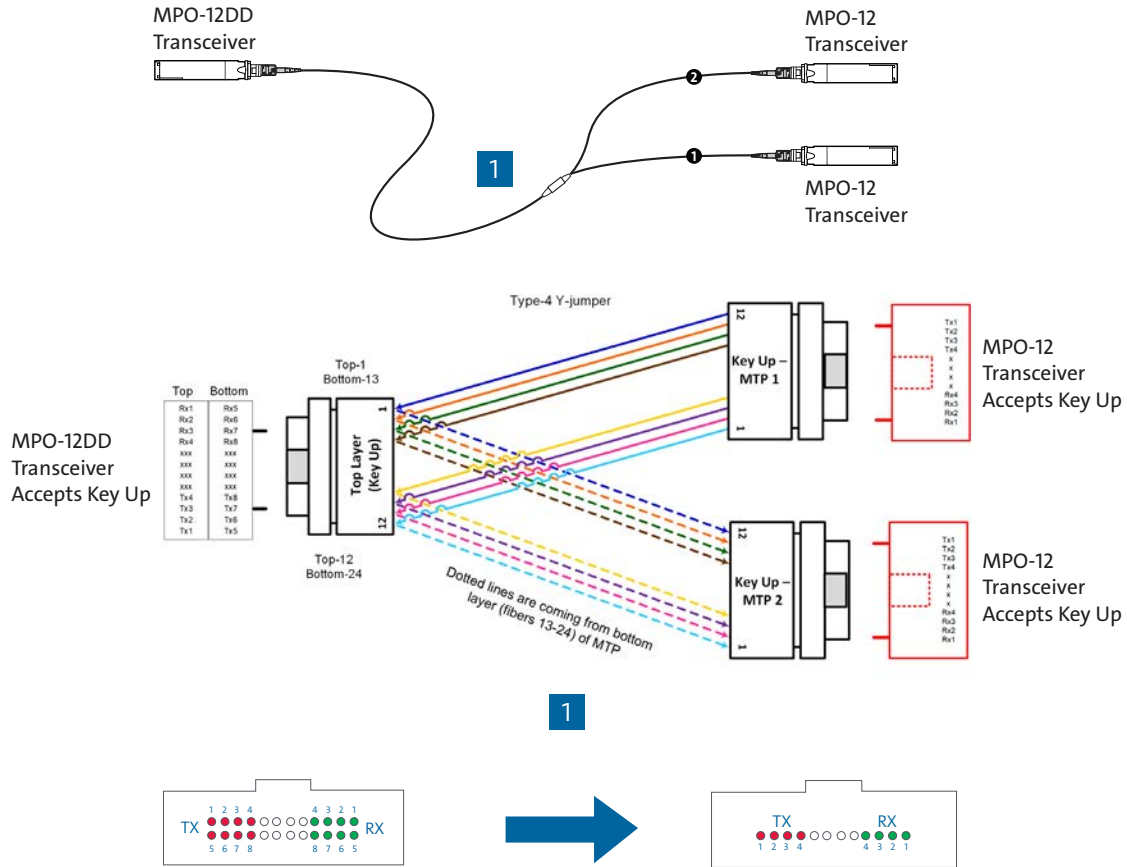
Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	1 X Q28DD-80G-2SR4	multimode
Q28DD-200G-2SR4	multimode	1 X Q28DD-200G-2SR4	multimode
Q56DD-400G-SR8	multimode	1 X Q56DD-400G-SR8	multimode

Table 6: Direct Connect — MPO-12DD to MPO-12DD

Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH)	Description
1	HA6E616QPH-L4xxxM	HA6E616QLZ-L4xxxM	EDGE8® 16 F Y-Harness, MPO-12DD (unpinned) to two MPO-12 (unpinned), 36-in (914-mm) breakout leg length, Type-4 polarity, 3.1 mm cable, xxxM
2	GE5E516QPNDUxxxM	GE5E516QLZDDUxxxM	EDGE8 MPO Trunk, 16 F, MPO-12 (pinned) to MPO-12 (pinned), Type-B polarity, pulling grip on first end only, 7.0 mm cable, xxxM
3	EDGE8-CP32-V3	EDGE8-CP32-V3	EDGE8 4-Port MPO Connector Panel, aqua adapter
4	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Multiple lengths available for harnesses.
Please contact your regional Corning Technical Support Line with any questions.

Scenario 7: MPO-12DD to MPO-12 Local



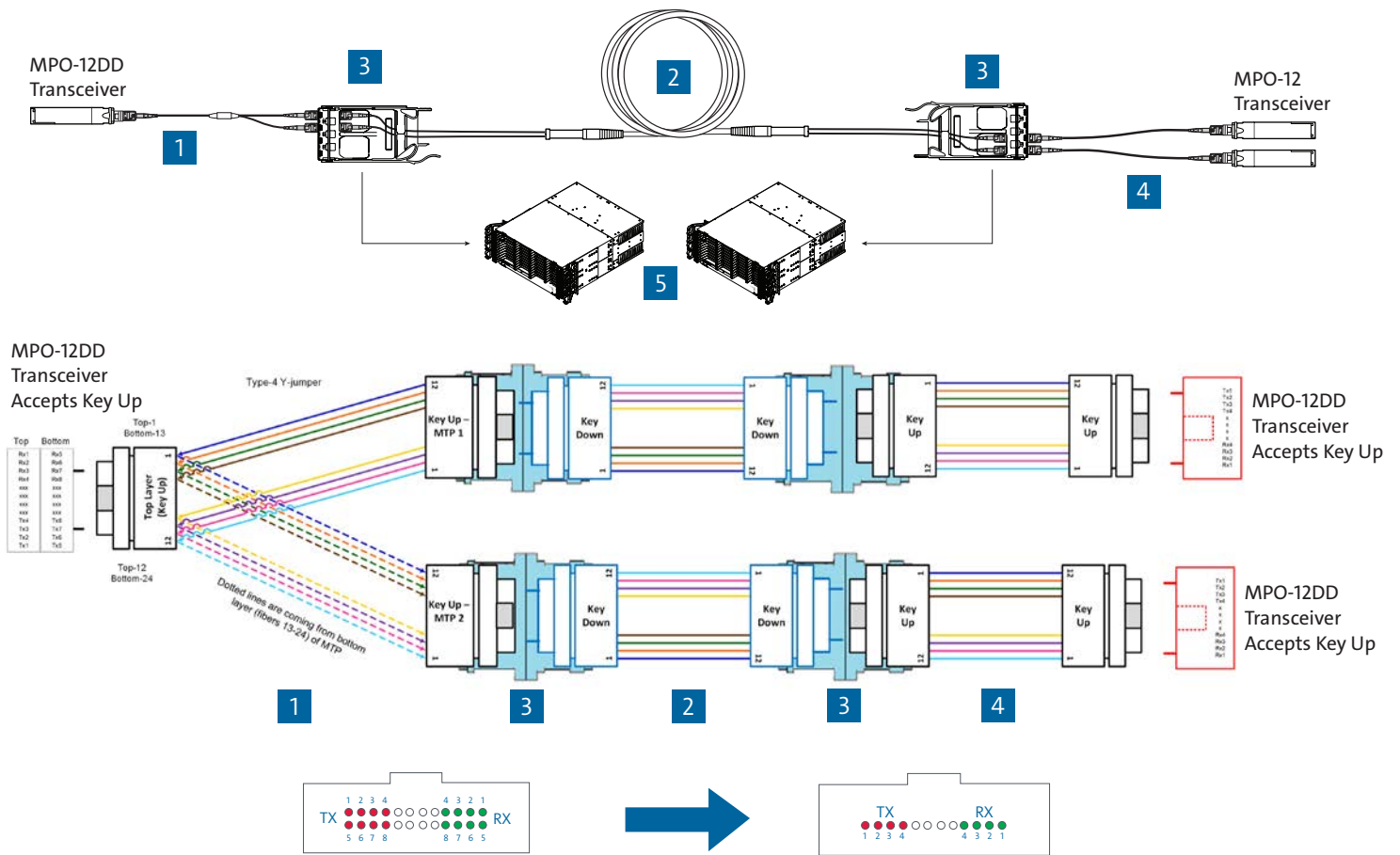
Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	2 X QSFP-40G-SR4	multimode
Q28DD-200G-2SR4	multimode	2 X Q28-100G-SR4	multimode

Table 7: Port Breakout Application – MPO-12DD to MPO-12

Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH™)	Description
1	HA6E616QPH-L4xxxM	HA6E616QLZ-L4xxxM	EDGE8® 16 F Y-Harness, MPO-12DD (unpinned) to two MPO-12 (unpinned), 36-in (914-mm) breakout leg length, Type-4 polarity, 3.1 mm cable, xxxM

Multiple lengths available for harnesses.

Scenario 8: MPO-12DD to MPO-12 Across DC with Trunk



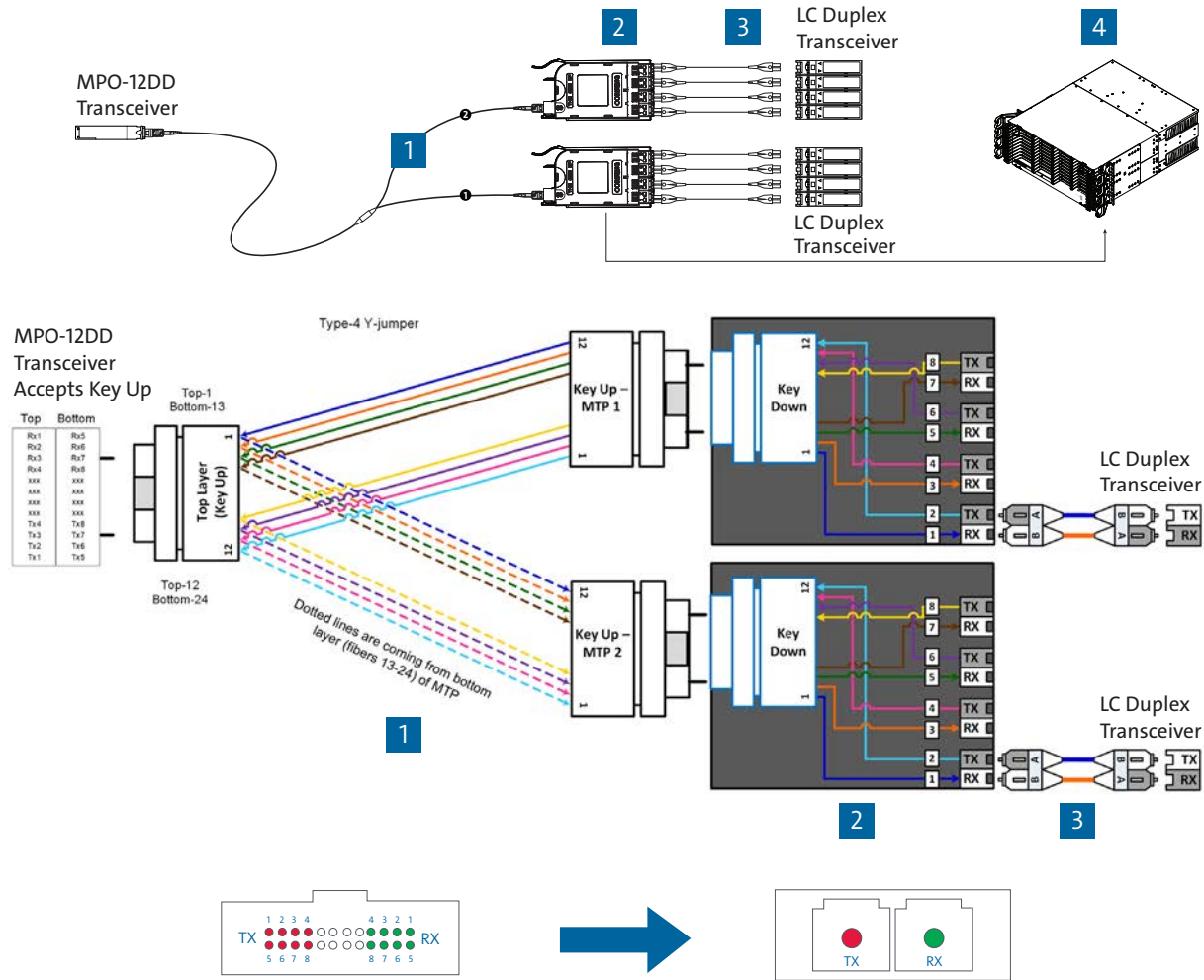
Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	2 X QSFP-40G-SR4	multimode
Q28DD-200G-2SR4	multimode	2 X Q28-100G-SR4	multimode

Table 8: Port Breakout Application – MPO-12DD to MPO-12

Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH)	Description
1	HA6E616QPH-L4xxxM	HA6E616QLZ-L4xxxM	EDGE8® 16 F Y-Harness, MPO-12DD (unpinned) to two MPO-12 (unpinned), 36-in (914-mm) breakout leg length, Type-4 polarity, 3.1 mm cable, xxxM
2	GE5E516QPNDUxxxM	GE5E516QLZDDUxxxM	EDGE8 MPO Trunk, 16 F, MPO-12 (pinned) to MPO-12 (pinned), Type-B polarity, pulling grip on first end only, 7.0 mm cable, xxxM
3	EDGE8-CP32-V3	EDGE8-CP32-V3	EDGE8 4-Port MPO Connector Panel, aqua adapter
4	JE6E608QE8-NBxxxM	JE6E608QE8-NBxxxM	EDGE8 MPO Patch Cord, 8 F, MPO-12 (unpinned) to MPO-12 (unpinned), Type-B polarity, 2.0 mm cable, xxxM
5	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Additional fiber counts and multiple lengths are available for trunks, patch cords, and harnesses. Please contact your regional Corning Technical Support Line with any questions.

Scenario 9: MPO-12DD to LC Duplex Local



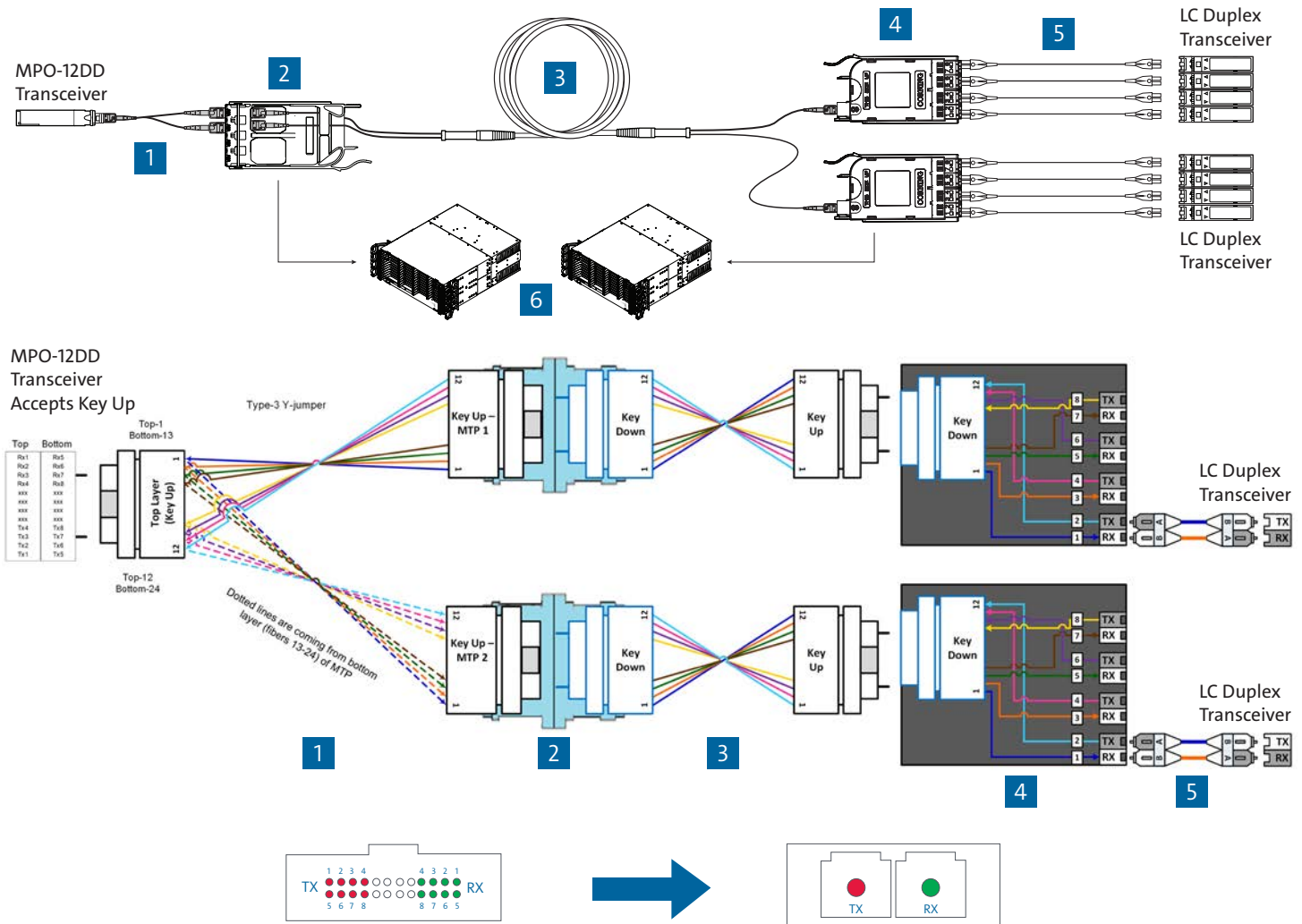
Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	8 X SFP-10G-SR 8 X SFP-10G-USR	multimode
Q28DD-200G-2SR4	multimode	8 X SFP28-25G-SR 8 X SFP28-25G-ESR	multimode
Q56DD-400G-SR8	multimode	8 X SFP56-50G-SR	multimode

Table 9: Port Breakout Application – MPO-12DD to LC Duplex

Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH™)	Description
1	HA6E516QPH-L4xxxM	HA6E516QLZ-L4xxxM	EDGE8® 16 F Y-Harness, MPO-12DD (unpinned) to two MPO-12 (pinned), 36-in (914-mm) breakout leg length, Type-4 polarity, 3.1 mm cable, xxxM
2	ECM8-UM08-05-E6Q-UULL	ECM8-UM08-05-E6Q-UULL	EDGE8 Module, LC duplex to MPO-12 (unpinned), 8 F, universal polarity
3	797902QD120xxxM	E797902QNZ20xxxM	EDGE™ Uniboot LC Patch Cord, 2 F, LC UPC to LC UPC, 2.0 mm cable, xxxM
4	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Multiple lengths available for patch cords and harnesses. Please contact your regional Corning Technical Support Line with any questions.

Scenario 10: MPO-12DD to LC Duplex Across DC with Trunk



Near End Optic (Left)		Far End Optic (Right)	
Q28DD-80G-2SR4	multimode	8 X SFP-10G-SR 8 X SFP-10G-USR	multimode
Q28DD-200G-2SR4	multimode	8 X SFP28-25G-SR 8 X SFP28-25G-ESR	multimode
Q56DD-400G-SR8	multimode	8 X SFP56-50G-SR	multimode

Table 10: Port Breakout Application – MPO-12DD to LC Duplex




Item	OM4 Part Number (Americas - Plenum)	OM4 Part Number (EMEA and APJ - LSZH)	Description
1	HA6E616QPH-L3xxxM	HA6E616QLZ-L3xxxM	EDGE8® 16 F Y-Harness, MPO-12DD (unpinned) to two MPO-12 (unpinned) 36-in (914-mm) breakout leg length, Type-3 polarity, 3.1 mm cable, xxxM
2	EDGE8-CP32-V3	EDGE8-CP32-V3	EDGE8 4-Port MPO Connector Panel, aqua adapter
3	GE5E516QPNDUxxxM	GE5E516QLZDDUxxxM	EDGE8 MPO Trunk, 16 F, MPO-12 (pinned) to MPO-12 (pinned), Type-B polarity, pulling grip on first end only, 7.0 mm cable, xxxM
4	ECM8-UM08-05-E6Q-UULL	ECM8-UM08-05-E6Q-UULL	EDGE8 Module, LC duplex to MPO-12 (unpinned), 8 F, universal polarity
5	797902QD120xxxM	E797902QN220xxxM	EDGE™ Uniboot LC Patch Cord, 2 F, LC UPC to LC UPC, 2.0 mm cable, xxxM
6	EDGE8-xxU	EDGE8-xxU	Please refer to Annex 1 to choose the best option for your application

Additional fiber counts and multiple lengths are available for trunks, patch cords, and harnesses. Please contact your regional Corning Technical Support Line with any questions.

Annex 1

EDGE8® HD housings mount in 19-in racks or cabinets and provide industry-leading ultra-high-density connectivity when combined with EDGE8 modules, panels, harnesses, trunks, and patch cords.

As each customer and project has specific needs, please add the housing that best suits your needs to the BOM:

	Part Number (Global)	Maximum Number of Modules or Panels	Maximum Fiber Density		Height
	EDGE8-01U-SP	18	LC MPO	144 fibers 576 fibers	1U
	EDGE8-02U	36	LC MPO	288 fibers 1152 fibers	2U
	EDGE8-04U	72	LC MPO	576 fibers 2304 fibers	4U

Notes

Notes

The logo consists of the word "CORNING" in a white, serif, all-caps font, centered within a solid blue square.

For questions, please contact Corning's Technical Support Line:

Americas

Phone: 800-743-2671

Email: dutyeng@corning.com

EMEA and APJ

Phone: +49 305 303 2134

Email: engineer.en.emea@corning.com

Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC 28216 USA
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

Corning Optical Communications reserves the right to improve, enhance, and modify the features and specifications of Corning Optical Communications products without prior notification. A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/ trademarks. All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified. © 2020 Corning Optical Communications. All rights reserved. LAN-2495-AEN / November 2020