



CORNING

# Charter MPO and DWDM Product Applications Guide

LGX 40/100 Breakout Modules, LGX DWDM Modules, Harnesses, and Cable Assemblies

# Charter 100G to 2 x 40G OM4 MMF Breakout Application

## Commercial Edge Router



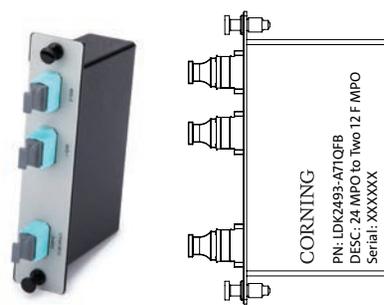
CPAK Transceiver  
CPAK-100G-SR10

## JA6A6A24QPE-NA00xMS Method A Polarity (1-12, 13-24), OM4 Jumper, Orange

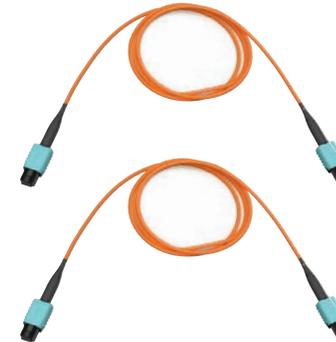


24 F MPO Key-Up Female

## LDK2493-A71QFB 24 MPO to Two 12 F MPO Mini LGX Cassettes



## J7575A12QEE-NB00xMS Method B Polarity OM4 Jumper, Orange

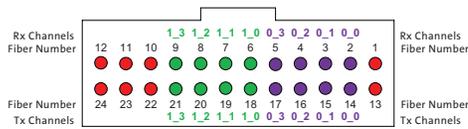


12 F MPO Key-Up Female

## Commercial Edge Switch (CES)



40G QSFP+ Transceiver  
2 x 40GBase-SR4



Fiber Numbers and Channel Assignments When Looking Into MTP Connector  
Note: Fibers 1, 10, 11, 12, 13, 22, 23, and 24 are not used.

- 40G Interface 0
- 40G Interface 1
- Not Used

### 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

### Capacity of 4RU Shelf

- Front: 13 cassettes (312 LC ports)
- Rear: 13 cassettes (312 LC ports)
- Total: 26 cassettes (624 LC ports)

Item Master	TVC PN	Description
XXXXXXX	<b>ISPAK-OM4-100G-2X40G-MPO-MPO-1M</b>	Kitted Part consisting of (1) LDK2493-A71QFB breakout module and (1) JA6A6A24QPE-NA001MS 24F 100G MPO MM orange jacketed assembly, 1 meter

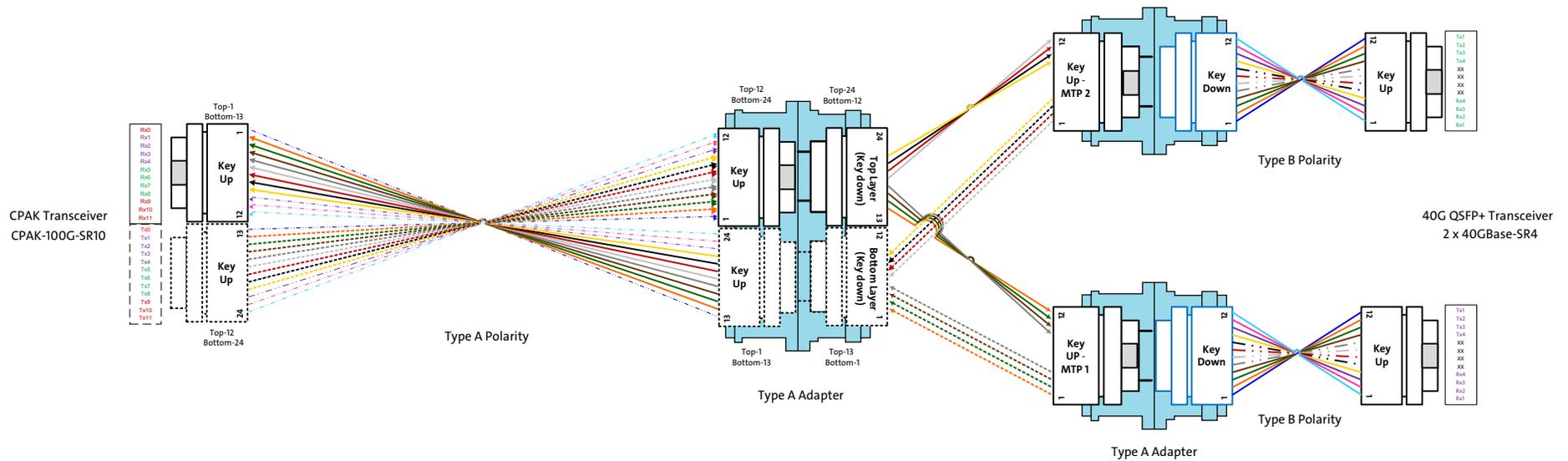
Item Master	Corning PN	Description
XXXXXXX	JA6A6A24QPE-NA001MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 1 m
XXXXXXX	JA6A6A24QPE-NA002MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 2 m
XXXXXXX	JA6A6A24QPE-NA003MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 3 m

Item Master	Corning PN	Description
XXXXXXX	LDK2493-A71QFB	Breakout, 24 F, CPAK 100G, MPO(M) to 2-12 F MPO, OM4

Item Master	Corning PN	Description
XXXXXXX	J7575A12QEE-NB001MS	MTP® Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 1 m
XXXXXXX	J7575A12QEE-NB002MS	MTP Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 2 m
XXXXXXX	J7575A12QEE-NB001MS	MTP Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 1 m

# Charter 100G to 2 x 40G OM4 MMF Breakout Application

## Polarity Wiring and Pin Assignment



# Charter 100G SMF Breakout Application

## Commercial Edge Router (CER)



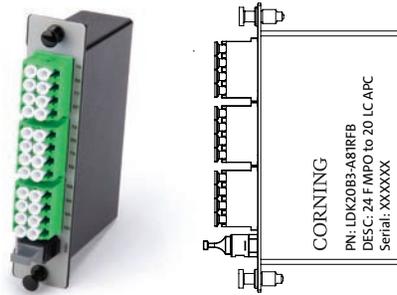
100G CPAK Transceiver  
CPAK-10x10G-LR

## JA9A924GPH-NA00xM Method A Polarity (1-12,13-24), SMF G.657.A1 Jumper



24 F MPO Key-Up Female

## LDK20B3-A81RFB 24 F MPO to 20 LC APC SMF Mini LGX Cassette



## Type A-B SMF G.657.A1 Jumper



LC APC

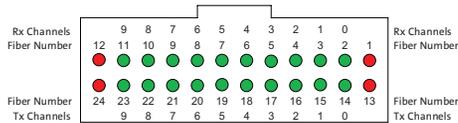
LC UPC

## Commercial Edge PON (OLT)



10G SFP+ Transceiver  
10 x 10GBase-LR

### CPAK 10x10G LR Pinout



Fiber Numbers and Channel Assignments When Looking Into MTP\* Connector  
Note: Fibers 1, 12, 13, and 24 are not used.

### 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

### Capacity of 4RU Shelf

- Front: 13 cassettes (312 LC ports)
- Rear: 13 cassettes (312 LC ports)
- Total: 26 cassettes (624 LC ports)

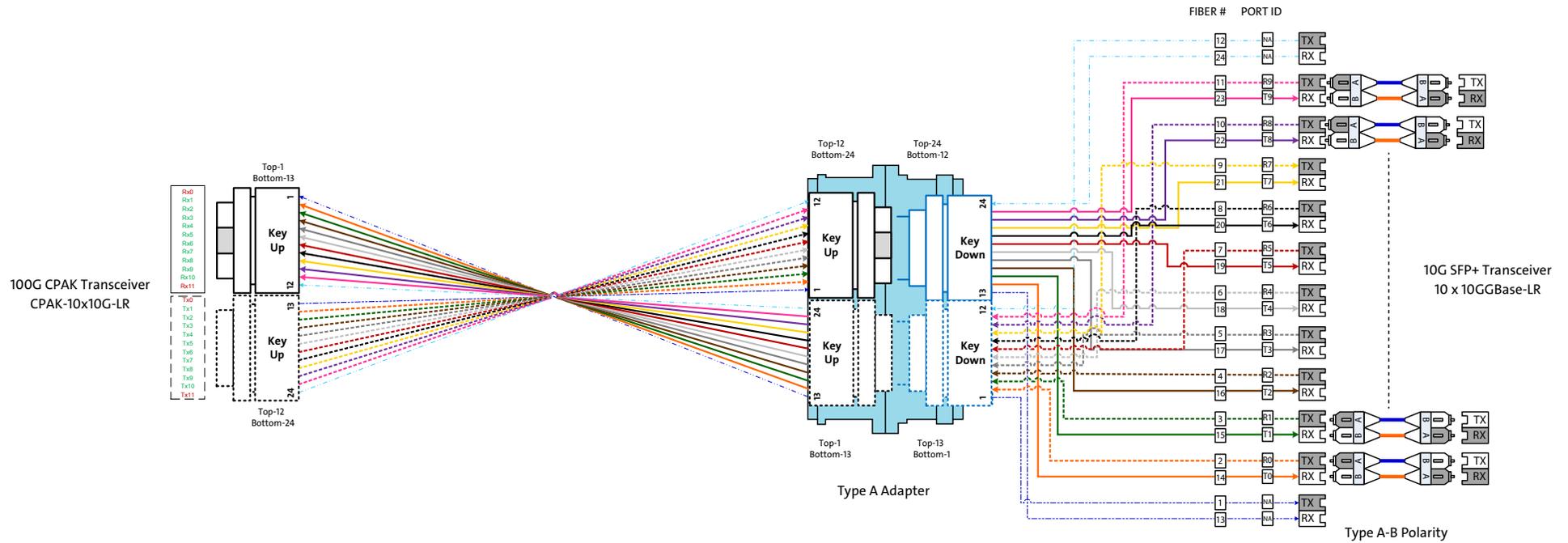
Item Master	TVC PN	Description
XXXXXXX	<b>ISPAK-SMF-100G-MPO-LCA-1M</b>	Kitted Part consisting of (1) LDK20B3-A81RFB breakout module and (1) JA9A924GPH-NA001M 12 F 100G MPO SM yellow jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXX	JA9A924GPH-NA001M	100G MPO Type A Jumper 24 F, SM, non-pinned, yellow jacket, 1 m
XXXXXXX	JA9A924GPH-NA002M	100G MPO Type A Jumper 24 F, SM, non-pinned, yellow jacket, 2 m
XXXXXXX	JA9A924GPH-NA003M	100G MPO Type A Jumper 24 F, SM, non-pinned, yellow jacket, 3 m

Item Master	Corning PN	Description
XXXXXXX	LDK20B3-A81RFB	Breakout, 20 F, CPAK 100G, single-mode, MPO(M) to LC APC

Item Master	Corning PN	Description
XXXXXXX	041802G9120001M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 1 m
XXXXXXX	041802G9120002M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 2 m
XXXXXXX	041802G9120003M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 3 m

# Charter 100G SMF Breakout Application Polarity Wiring and Pin Assignment



## Fiber Line Notation

- Top layer fiber MTP\* key position
- Bottom layer fiber MTP key position
- Top/bottom unused fiber

# Charter 100G OM4 MMF Breakout Application

## Commercial Edge Router (CER)



QSFP-100G-SR10

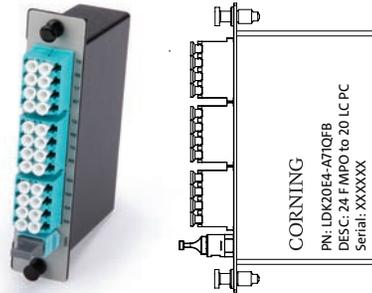
CPAK-100G-SR10

## JA6A6A24QPE-NA00xMS Method A Polarity (1-12,13-24), OM4 Jumper, Orange



24 F MPO Key-Up Female

## LDK20E4-A71QFB 24 F MPO to 20 LC/PC M4 Mini LGX Cassette



## Type A-B OM4 Jumper



LC

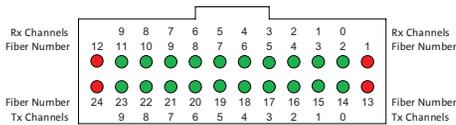
LC

## 10G MMF



10G SFP+ Transceiver  
10x10GBase-SR

### CPAK/QSFP-100G-SR10 Pinout



Fiber Numbers and Channel Assignments When Looking Into MTP<sup>®</sup> Connector  
Note: Fibers 1, 12, 13, and 24 are not used.

### 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

### Capacity of 4RU Shelf

- Front: 13 cassettes (260 LC ports)
- Rear: 13 cassettes (260 LC ports)
- Total: 26 cassettes (520 LC ports)

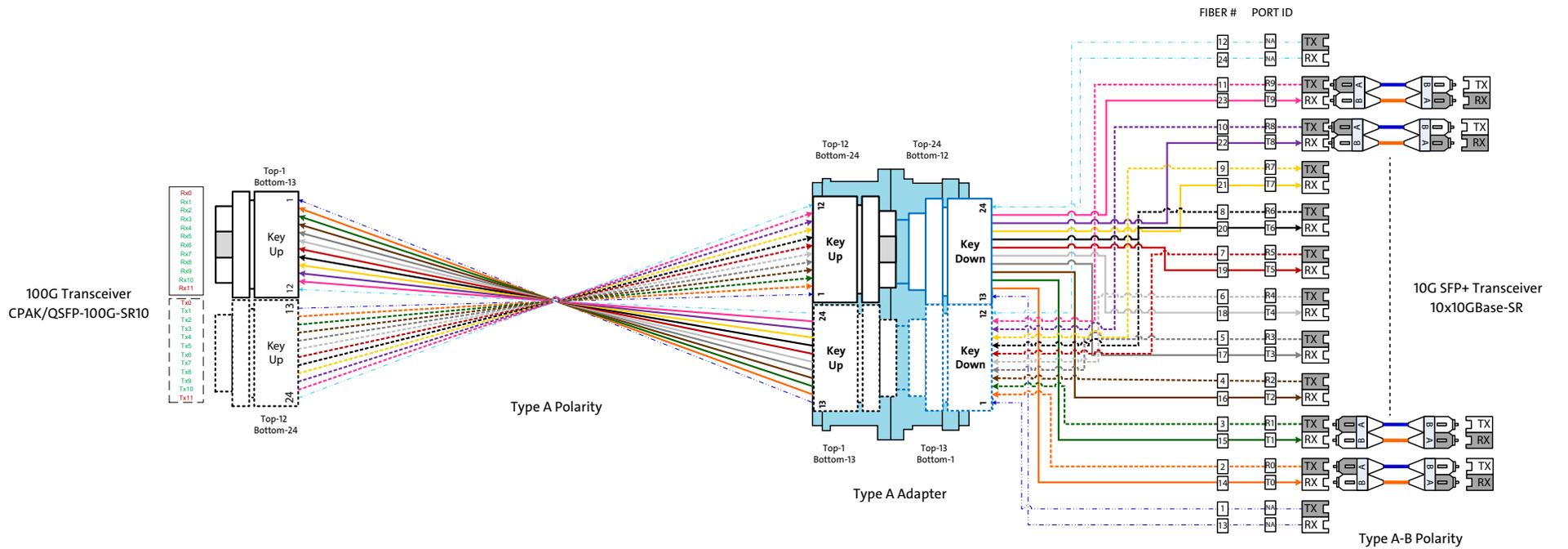
Item Master	TVC PN	Description
XXXXXXXX	<b>ISPAK-OM4-100G-MPO-LC-1M</b>	Kitted Part consisting of (1) LDK20E4-A71QFB breakout module and (1) JA6A6A24QPE-NA001MS 24 F 100G MPO MM orange jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXXX	JA6A6A24QPE-NA001MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 1 m
XXXXXXXX	JA6A6A24QPE-NA002MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 2 m
XXXXXXXX	JA6A6A24QPE-NA003MS	100G MPO Type A Jumper, 24 F, 50 μm MM (OM4), orange jacket, 3 m

Item Master	Corning PN	Description
XXXXXXXX	LDK20E4-A71QFB	Breakout, 20 F, CPAK 100G, MPO(M) to LC, OM4

Item Master	Corning PN	Description
XXXXXXXX	030302Q5120001M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 μm bend-insensitive fiber, LC to LC, orange jacket, 1 m
XXXXXXXX	030302Q5120002M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 μm bend-insensitive fiber, LC to LC, orange jacket, 2 m
XXXXXXXX	030302Q5120003M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 μm bend-insensitive fiber, LC to LC, orange jacket, 3 m

# Charter 100G OM4 MMF Breakout Application Polarity Wiring and Pin Assignment



## Fiber Line Notation

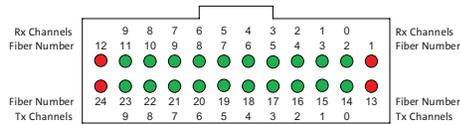
- Top layer fiber MTP® key position
- Bottom layer fiber MTP key position
- Top/bottom unused fiber

# Charter 100G SMF and MMF Interconnect Application

## SMF Interconnect Jumper



CPAK 10x10G LR Pinout

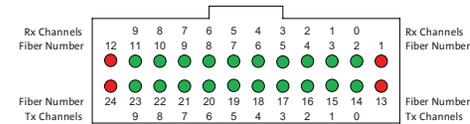


Fiber Numbers and Channel Assignments When Looking Into MTP® Connector  
Note: Fibers 1, 12, 13, and 24 are not used.

## MMF Interconnect Jumper



CPAK/QSFP-100G-SR10 Pinout

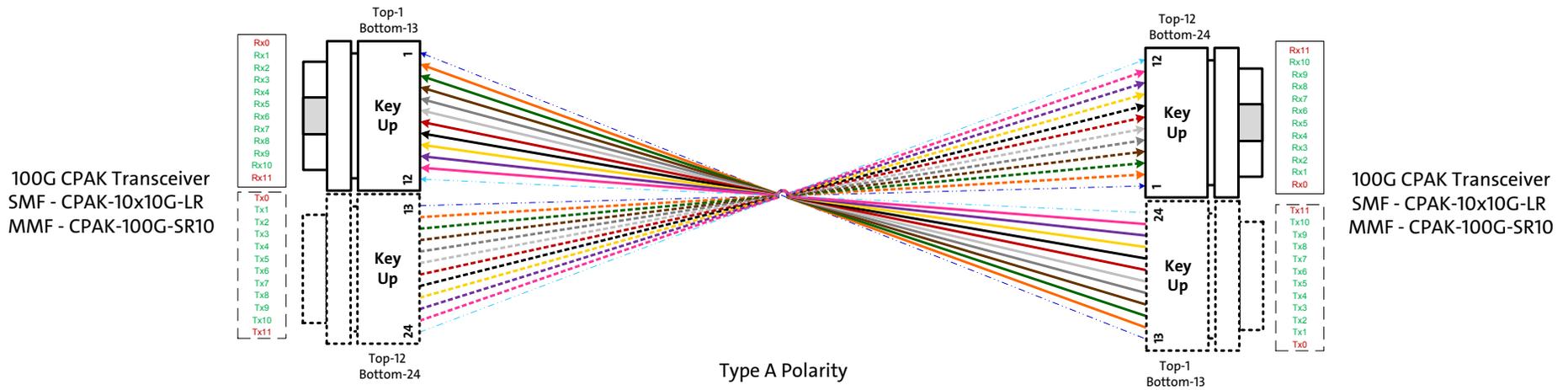


Fiber Numbers and Channel Assignments When Looking Into MTP® Connector  
Note: Fibers 1, 12, 13, and 24 are not used.

Item Master	Corning PN	Description
XXXXXXXX	JA9A924GPH-NA001M	100G MPO Type A Jumper, 24 F, SM, non-pinned, yellow jacket, 1 m
XXXXXXXX	JA9A924GPH-NA002M	100G MPO Type A Jumper, 24 F, SM, non-pinned, yellow jacket, 2 m
XXXXXXXX	JA9A924GPH-NA003M	100G MPO Type A Jumper, 24 F, SM, non-pinned, yellow jacket, 2 m

Item Master	Corning PN	Description
XXXXXXXX	JA6A6A24QPE-NA001MS	100G MPO Type A Jumper, 24 F, 50 μm multimode (OM4), orange jacket, 1 m
XXXXXXXX	JA6A6A24QPE-NA002MS	100G MPO Type A Jumper, 24 F, 50 μm multimode (OM4), orange jacket, 2 m
XXXXXXXX	JA6A6A24QPE-NA003MS	100G MPO Type A Jumper, 24 F, 50 μm multimode (OM4), orange jacket, 3 m

# Charter 100G SMF and MMF Interconnect Application Polarity Wiring and Pin Assignment



# Charter 3 x 40G SMF MPO Breakout Application

## Juniper QFX10k Data Center Switch

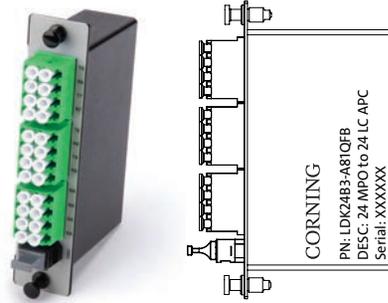


40G PLR4 Transceivers  
3 x QSFP-40GBase-PLR4

## HA99024GPH-KA001M Method A Polarity (3) 8 F MPO to (1) 24 F MPO



## LDK24B3-A81QFB 24 MPO to 24 LC APC Mini LGX Cassette



10G SFP+ Transceiver  
12 x 10G LR

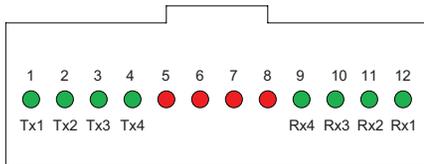
### 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf
- This back-to-back mounting allows for increased cassette density, if needed

### Capacity of 4RU Shelf

Front: 13 cassettes (312 LC ports)  
Rear: 13 cassettes (312 LC ports)  
Total: 26 cassettes (624 LC ports)

## QSFP-40GBase-PLR4 Pinout



### Fiber Numbers Looking at the MTP® Connector

Note: Fibers 5, 6, 7, and 8 are not used.

Item Master	TVC PN	Description
XXXXXXXX	ISPAK-SMF-3X40G-MPO-LCA-1M	Kitted Part consisting of (1) LDK24B3-A81QFB breakout module and (1) HA99024GPH-KA001M 40G (3) 8 F MPO to (1) 24 F MPO SM yellow jacketed assembly, 1 meter

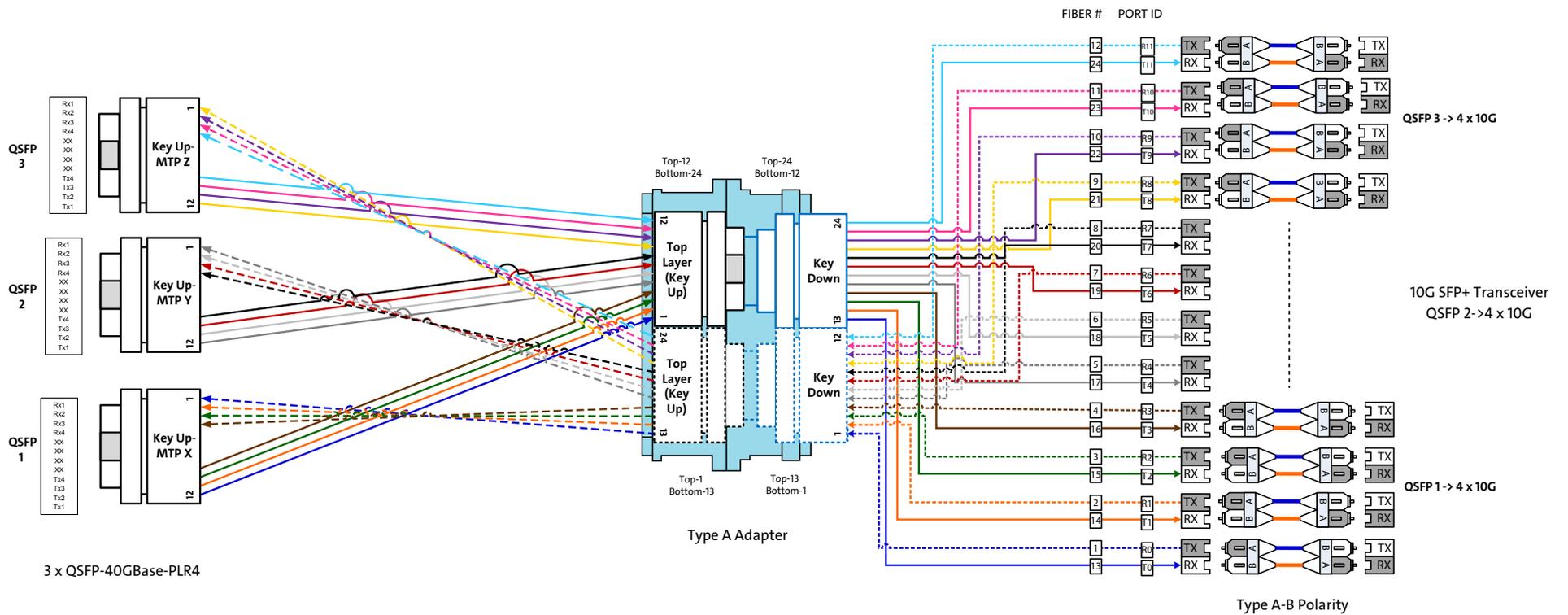
Item Master	Corning PN	Description
XXXXXXXX	HA99024GPH-KA001M	MPO Type A to (3) 8 F MPO Type A, plenum-rated cable, single-mode, 24-in breakout, yellow jacket, 1 m
XXXXXXXX	HA99024GPH-KA002M	24 F MPO Type A to (3) 8 F MPO Type A, plenum-rated cable, single-mode, 24-in breakout, yellow jacket, 2 m
XXXXXXXX	HA99024GPH-KA003M	24 F MPO Type A to (3) 8 F MPO Type A, plenum-rated cable, single-mode, 24-in breakout, yellow jacket, 3 m

Item Master	Corning PN	Description
XXXXXXXX	LDK24B3-A81QFB	Corning 3 x 40G to 12 x 10G Breakout Module, MPO, single-mode, 24 F

Item Master	Corning PN	Description
XXXXXXXX	041802G9120001M	Jumper Fiber, riser-rated duplex, single-mode 1.6 mm, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 1 m
XXXXXXXX	041802G9120002M	Jumper Fiber, riser-rated duplex, single-mode 1.6 mm, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 2 m
XXXXXXXX	041802G9120003M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 3 m

# Charter 3 x 40G SMF MPO Breakout Application

## Polarity Wiring and Pin Assignment



# Charter 40G QSFP+ OM4 MMF Breakout Application

CISCO NCS 5500  
(55A1)



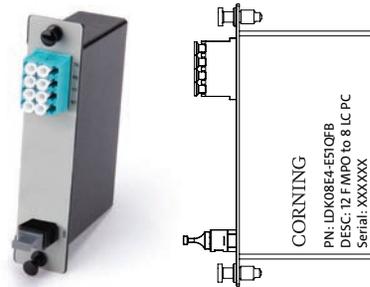
40/100G Transceiver  
QSFP-40G-SR4

J7575A12QEE-NB00xMS  
Method B Polarity  
(1-12) Jumper Orange



12 F MPO Key-Up Female

LDK08E4-E51QFB  
12 F MPO to 8 LC/PC OM4  
Mini LGX Cassette



Type A-B  
OM4 Jumper



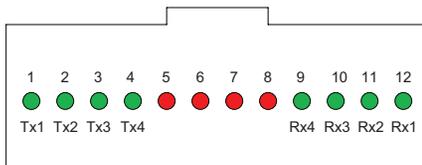
LC LC

10G MMF



10G SFP+ Transceiver  
4 x 10GBase-SR

## QSFP-40G-SR4 Pinout



Fiber Numbers Looking at the MTP® Connector

Note: Fibers 5, 6, 7, and 8 are not used.

## 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

## Capacity of 4RU Shelf

- Front: 13 cassettes (104 LC ports)
- Rear: 13 cassettes (104 LC ports)
- Total: 26 cassettes (208 LC ports)

Item Master	TVC PN	Description
XXXXXXXX	<b>ISPAK-OM4-40G-MPO-LC-1M</b>	Kitted Part consisting of (1) LDK08E4-E51QFB breakout module and (1) J7575A12QEE-NB001MS 12 F 40G MPO MM orange jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXXX	J7575A12QEE-NB001MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 1 m
XXXXXXXX	J7575A12QEE-NB002MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 2 m
XXXXXXXX	J7575A12QEE-NB003MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 3 m

Item Master	Corning PN	Description
XXXXXXXX	LDK08E4-E51QFB	Corning 40G to 4 x 10G Breakout Module, LC, OM4

Item Master	Corning PN	Description
XXXXXXXX	030302Q5120001M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 1 m
XXXXXXXX	030302Q5120002M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 2 m
XXXXXXXX	030302Q5120003M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 3 m

# Charter 100G QSFP+/QSFP28 OM4 MMF Breakout Application

CISCO NCS 5500  
(55A1)



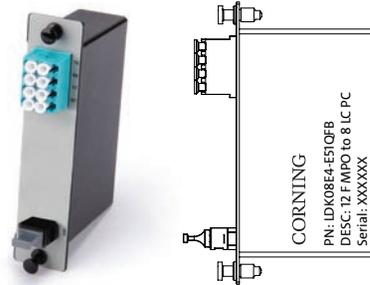
100G Transceiver  
QSFP-100G-SR4

J7575A12QEE-NB00xMS  
Method B Polarity  
(1-12) Jumper Orange



12 F MPO Key-Up Female

LDK08E4-E51QFB  
12 F MPO to 8 LC/PC OM4  
Mini LGX Cassette



Type A-B  
OM4 Jumper



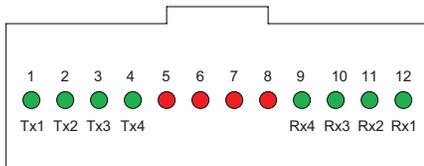
LC LC

10G MMF



10G SFP+ Transceiver  
4 x 10GBase-SR

QSFP-100G-SR4 Pinout



Fiber Numbers Looking at the MTP® Connector

Note: Fibers 5, 6, 7, and 8 are not used.

1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

Capacity of 4RU Shelf

- Front: 13 cassettes (104 LC ports)
- Rear: 13 cassettes (104 LC ports)
- Total: 26 cassettes (208 LC ports)

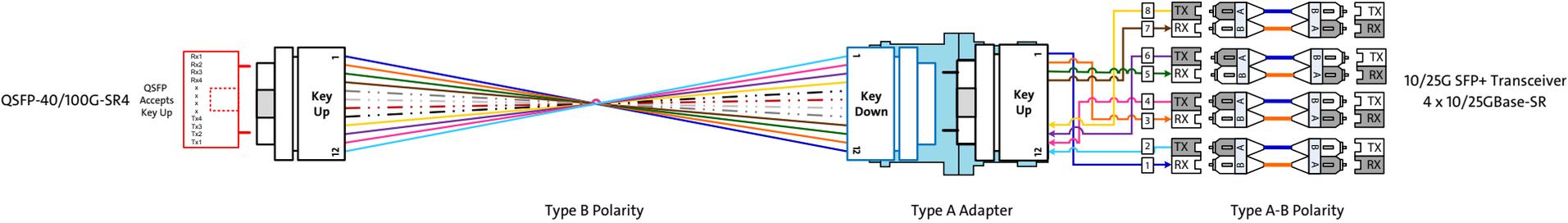
Item Master	TVC PN	Description
XXXXXXX	<b>ISPAK-OM4-40G-MPO-LC-1M</b>	Kitted Part consisting of (1) LDK08E4-E51QFB breakout module and (1) J7575A12QEE-NB001MS 12 F 40G MPO MM orange jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXX	J7575A12QEE-NB001MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 1 m
XXXXXXX	J7575A12QEE-NB002MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 2 m
XXXXXXX	J7575A12QEE-NB003MS	40G MPO Type B Jumper, 12 F, 50 µm MM (OM4), orange jacket, 3 m

Item Master	Corning PN	Description
XXXXXXX	LDK08E4-E51QFB	Corning 40G to 4 x 10G Breakout Module, LC, OM4

Item Master	Corning PN	Description
XXXXXXX	030302Q5120001M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 1 m
XXXXXXX	030302Q5120002M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 2 m
XXXXXXX	030302Q5120003M-OR	Jumper Fiber, riser-rated duplex, multimode 2.0 mm legs, OM4 50 µm bend-insensitive fiber, LC to LC, orange jacket, 3 m

# Charter 40G QSFP+ & 100G QSFP+/QSFP28 OM4 MMF Breakout Application Polarity Wiring and Pin Assignment



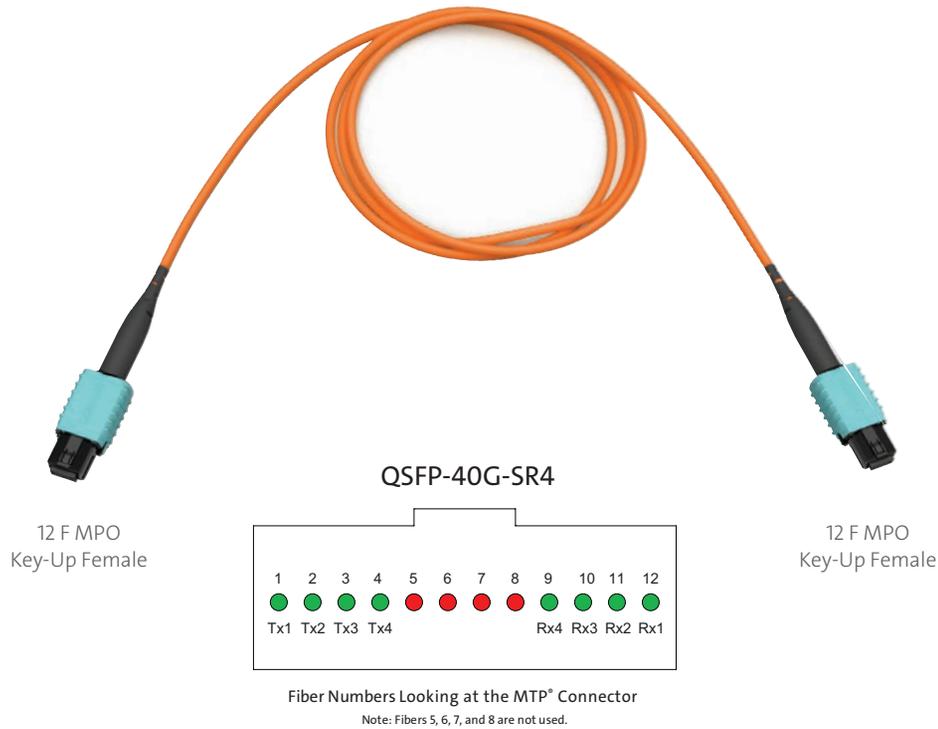
Fiber Line Notation

————— Used fibers

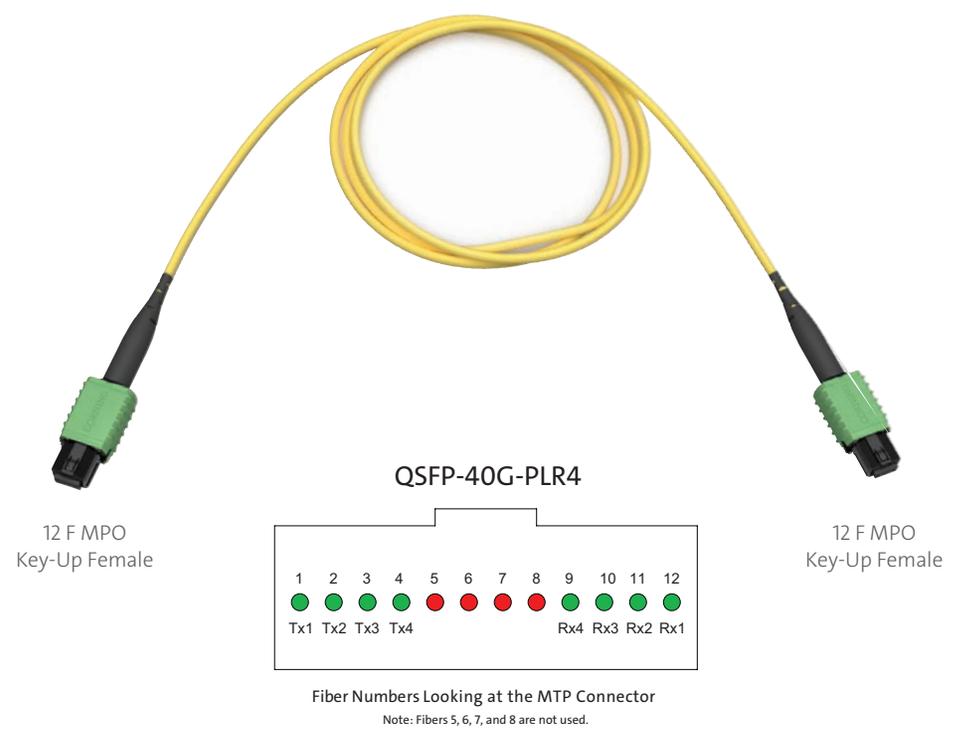
- - - - - Unused fiber

# Charter 40G QSFP+ SMF and MMF Interconnect Application

## MMF Interconnect Jumper



## SMF Interconnect Jumper

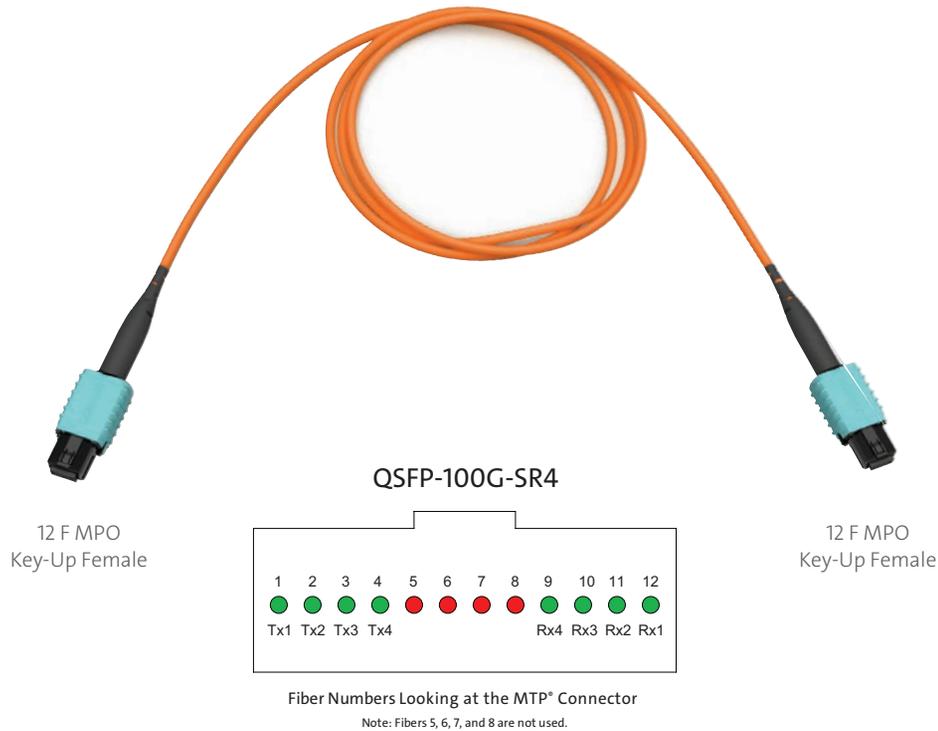


Item Master	Corning PN	Description
XXXXXXX	J7575A12QEE-NB001MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 1 m
XXXXXXX	J7575A12QEE-NB002MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 2 m
XXXXXXX	J7575A12QEE-NB003MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 3 m

Item Master	Corning PN	Description
TBD	J909012GE8-NB001M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 1 m
TBD	J909012GE8-NB002M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 2 m
TBD	J909012GE8-NB003M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 3 m

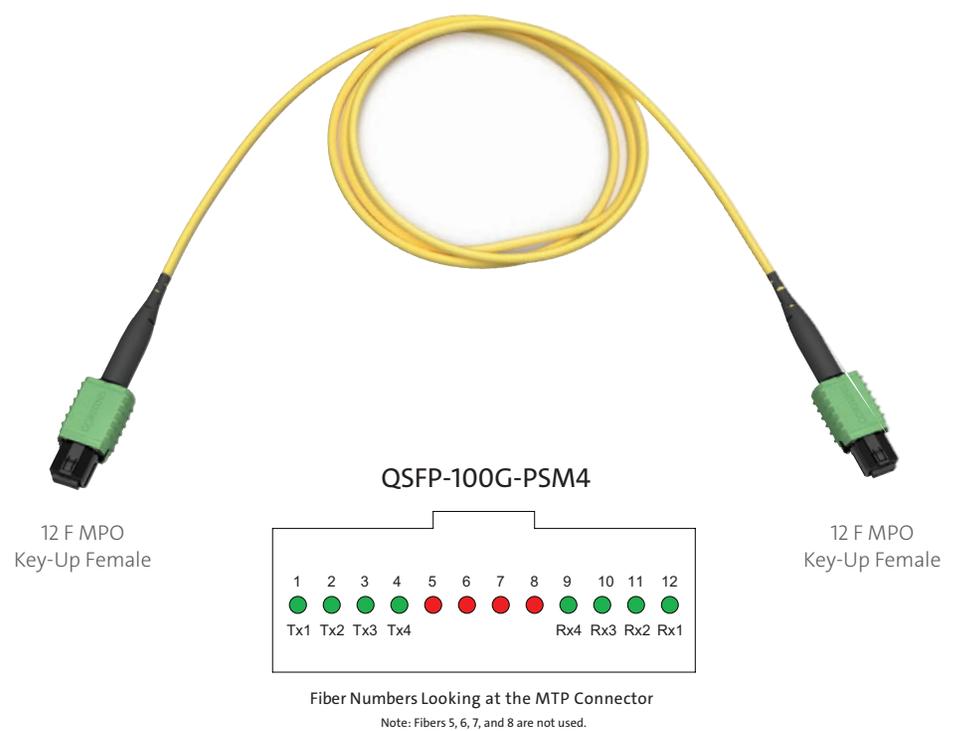
# Charter 100G QSFP+/QSFP28 SMF and MMF Interconnect Application

## MMF Interconnect Jumper



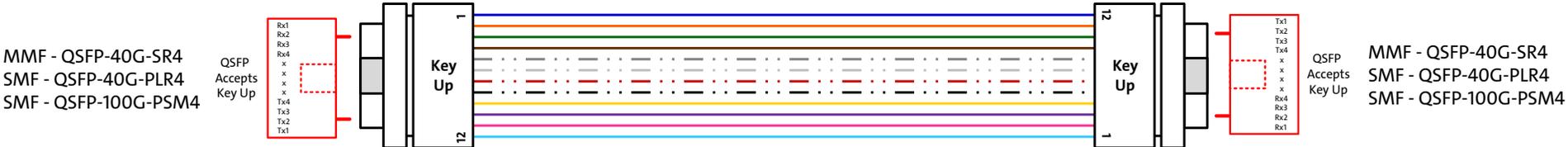
Item Master	Corning PN	Description
XXXXXXX	J7575A12QEE-NB001MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 1 m
XXXXXXX	J7575A12QEE-NB002MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 2 m
XXXXXXX	J7575A12QEE-NB003MS	40G MPO Type B Jumper, 12 F, 50 μm multimode (OM4), orange jacket, 3 m

## SMF Interconnect Jumper



Item Master	Corning PN	Description
TBD	J909012GE8-NB001M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 1 m
TBD	J909012GE8-NB002M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 2 m
TBD	J909012GE8-NB003M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 3 m

# Charter 40G QSFP+ & 100G QSFP+/QSFP28 SMF and MMF Interconnect Application Polarity Wiring and Pin Assignment



Type B Polarity

**J7575A12QEE-NBxxxMS**  
1-12, OM4  
Jumper

Fiber Line Notation

————— Used fibers

- - - - - Unused fiber

# Charter 40G QSFP+ SMF Breakout Application

CISCO NCS 5500  
(55A1)



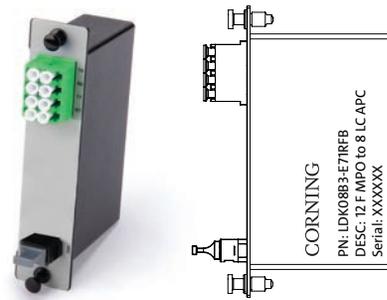
40G Transceiver  
QSFP-40G-PLR4

J909012GE8-NB00xM  
Method B Polarity  
(1-12) Jumper Orange



12 F MPO Key-Up Female

LDK08B3-E71RFB  
12 F MPO to 8 LC APC  
Mini LGX Cassette



Type A-B  
SMF G.657.A1 Jumper



LC APC

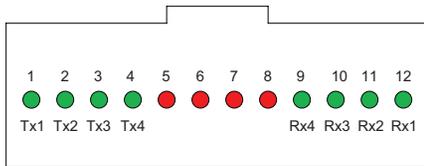
LC UPC

10G MMF



10G SFP+ Transceiver  
4 x 10GBase-LR

QSFP-40G-PLR4 Pinout



Fiber Numbers Looking at the MTP® Connector

Note: Fibers 5, 6, 7, and 8 are not used.

## 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

## Capacity of 4RU Shelf

- Front: 13 cassettes (104 LC ports)
- Rear: 13 cassettes (104 LC ports)
- Total: 26 cassettes (208 LC ports)

Item Master	TVC PN	Description
XXXXXXXX	<b>ISPAK-SMF-40G-MPO-LCA-1M</b>	Kitted Part consisting of (1) LDK08B3-E71RFB breakout module and (1) J909012GE8-NB001M 12 F 40G MPO SM yellow jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXXX	J909012GE8-NB001M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 1 m
XXXXXXXX	J909012GE8-NB002M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 2 m
XXXXXXXX	J909012GE8-NB003M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 3 m

Item Master	Corning PN	Description
XXXXXXXX	LDK08B3-E71RFB	Corning 40G to 4x 10G Breakout Module, LC APC, single-mode

Item Master	Corning PN	Description
XXXXXXXX	041802G9120001M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 1 m
XXXXXXXX	041802G9120002M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 2 m
XXXXXXXX	041802G9120003M	Jumper Fiber, riser-rated, duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 3m

# Charter 100G QSFP+/QSFP28 SMF Breakout Application

CISCO NCS 5500  
(55A1)



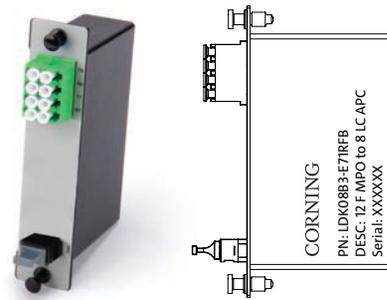
40/100G Transceiver  
QSFP-100G-PSM4

J909012GE8-NB00xM  
Method B Polarity  
(1-12) Jumper Orange



12 F MPO Key-Up Female

LDK08B3-E71RFB  
12 F MPO to 8 LC APC  
Mini LGX Cassette



Type A-B  
SMF G.657.A1 Jumper



LC APC

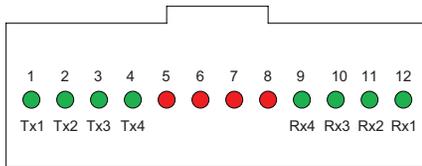
LC UPC

10G MMF



10/25G SFP+ Transceiver  
4 x 10/25GBase-LR

QSFP-100G-PSM4 Pinout



Fiber Numbers Looking at the MTP® Connector

Note: Fibers 5, 6, 7, and 8 are not used.

## 1026013, ASB 4U Shelf

- MPO and LC ports all on faceplate
- Mini LGX cassette can be mounted in front and rear rails of 4RU shelf

## Capacity of 4RU Shelf

- Front: 13 cassettes (104 LC ports)
- Rear: 13 cassettes (104 LC ports)
- Total: 26 cassettes (208 LC ports)

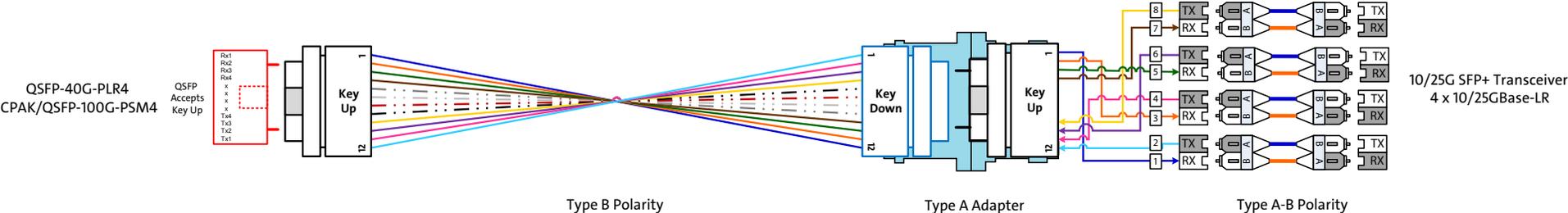
Item Master	TVC PN	Description
XXXXXXXX	<b>ISPAK-SMF-40G-MPO-LCA-1M</b>	Kitted Part consisting of (1) LDK08B3-E71RFB breakout module and (1) J909012GE8-NB001M 12 F 40G MPO SM yellow jacketed assembly, 1 meter

Item Master	Corning PN	Description
XXXXXXXX	J909012GE8-NB001M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 1 m
XXXXXXXX	J909012GE8-NB002M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 2 m
XXXXXXXX	J909012GE8-NB003M	40G MPO Type B Jumper, 12 F, single-mode, yellow jacket, 3 m

Item Master	Corning PN	Description
XXXXXXXX	LDK08B3-E71RFB	Corning 40G to 4x 10G Breakout Module, LC APC, single-mode

Item Master	Corning PN	Description
XXXXXXXX	041802G9120001M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 1 m
XXXXXXXX	041802G9120002M	Jumper Fiber, riser-rated duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 2 m
XXXXXXXX	041802G9120003M	Jumper Fiber, riser-rated, duplex, single-mode 2.0 mm legs, 9/125 bend-insensitive fiber, LC APC to LC UPC, yellow jacket, 3m

# Charter 40G QSFP+ & 100G QSFP+/QSFP28 SMF Breakout Application Polarity Wiring and Pin Assignment



# Charter-Approved LGX-Compatible DWDM Modules

Corning offers a variety of DWDM modules compatible with the LGX family of connector housings. Components are compliant with Telcordia requirements, including GR-1209, GR-1221, and others as appropriate to the specification. Available in 4, 8, 12, 16, 20, and 40 approved channels.

## Features and Benefits

- Accommodates standard connector types
- Reduces inventory
- Individual connector adapters
- Enables easy connector access
- Integrated fiber routing and bend-radius protection
- Minimizes insertion loss



4-Channel Mux		
Charter Item Number	Corning Part Number	Description
1011685	DKXB31A041600ZZB5N	DWDM, LGX module, 4 channel, mux, 16-19 DTPUPG, LC APC
1023372	DKXB31A046000ZZB5N	DWDM, LGX module, 4 channel, mux, 60-63 DTPUPG, LC APC

8-Channel Mux		
Charter Item Number	Corning Part Number	Description
1005842	DKXB31A082000ZZB5N	DWDM, LGX module, LC APC, 100 GHz, mux, 8 channel, ITU 20-27, express port, upgrade port, test TX port, test RX port
1023373	DKXB31A082800ZZB5N	DWDM, LGX module, LC APC, 100 GHz, mux, 8 channel, ITU 28-35, express port, upgrade port, test TX port, test RX port
1011686	DKXB31A083600ZZB5N	DWDM, LGX module, LC APC, 100 GHz, mux, 8 channel, ITU 36-43, express port, upgrade port, test TX port, test RX port
1023374	DKXB31A084400ZZB5N	DWDM, LGX module, LC APC, 100 GHz, mux, 8 channel, ITU 44-51, express port, upgrade port, test TX port, test RX port
1002921	DKXB31A085200ZZB5N	DWDM, LGX module, LC APC, 100 GHz, mux, 8 channel, ITU 52-59, express port, upgrade port, test TX port, test RX port

### 12-Channel Mux

Charter Item Number	Corning Part Number	Description
1023375	DKXB31A125000ZZE5N	DWDM, LGX module, LC APC, 100 GHz, mux, 12 channel, ITU 50-61, express port, upgrade port, test TX port, test RX port

### 16-Channel Mux

Charter Item Number	Corning Part Number	Description
1011687	DKXB31A162500ZZE5N	DWDM, LGX module, LC APC, 100 GHz, mux, 16 channel, ITU 25-40, express port, upgrade port, test TX port, test RX port

### 20-Channel Mux

Charter Item Number	Corning Part Number	Description
1023376	DKXB31A202000ZZB5O	DWDM, LGX module, LC APC, 100 GHz, mux, 20 channel, TU 20-39, express port, upgrade port, test TX port, test RX port, OTDR
1005843	DKXB31A204000ZZB5O	DWDM, LGX module, LC APC, 100 GHz, mux, 20 channel, ITU 40-59, express port, upgrade port, test TX port, test RX port

### 40-Channel Mux

Charter Item Number	Corning Part Number	Description
1023377	DKXB31A402000ZZB5O	DWDM, LGX module, LC APC, 100 GHz, mux, 40 channel, ITU 20-59, express port, upgrade port, test TX port, test RX port, OTDR



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