

# MPO TO LC optical breakout equipment



As network infrastructure is deployed to meet the evolving needs of 5G, the cloud and the Internet of Things, an efficient optical breakout solution to maximize asset utilization and simplify fiber management is essential. Nokia delivers a complete solution, ensuring maximum use of equipment resources, cost-effectiveness and enhanced performance to better compete in an on-demand world.

With support for QSFP+, QSFP28 and QSFP28-DD optics on Fiberwdm MPO to LC Optical Breakout line cards, the solution breaks out high-speed ports into the desired number of lower-speed interfaces. This maximizes port density and bandwidth utilization on the host router and minimizes the number of required line card variants.

## Key Benefits

- ◆ Lossless speed shift: splits MPO into four independent LC interfaces; fully transparent, zero configuration.
- ◆ Future-proof: supports:
  - 40G SR4, 40G PSM4 Breakout 4\*10G
  - 100G SR4, 100PSM4 Breakout 4x25G
  - 400G SR4 breakout 4x100G

## Overview



## Specification

| parameters            | SM                                 |        | MM      |        |
|-----------------------|------------------------------------|--------|---------|--------|
|                       | MPO/UPC                            | LC/UPC | MPO/UPC | LC/UPC |
| Insert Loss           | ≤1.0dB                             | ≤0.5dB | ≤0.9dB  | ≤0.5dB |
| Return Loss           | ≥25 dB                             | ≥35 dB | ≥25 dB  | ≥35 dB |
| Fiber Type            | SMF-28e                            |        | OM4     |        |
| Number of plug- times | 500 times                          |        |         |        |
| Tensile Strength      | 66N                                |        |         |        |
| Work Temperature      | -20 ~+70℃                          |        |         |        |
| Store Temperature     | -40 ~+80℃                          |        |         |        |
| Case Size             | 1U,19inch （483X44X230mm） for 4slot |        |         |        |

## Panel of breakout module

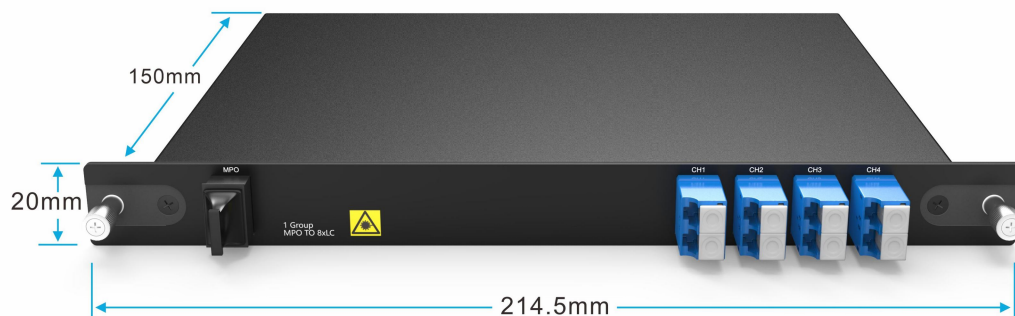


1 Group MPO TO 8xLC



2 Groups MPO TO 8xLC

## Package Information



**1 Group MPO TO 8xLC**



**2 Group MPO TO 8xLC**



**4-Slot 1U Rack for MPO TO LC optical breakout Module**

## Application

### 40G TO 4X10G Solution

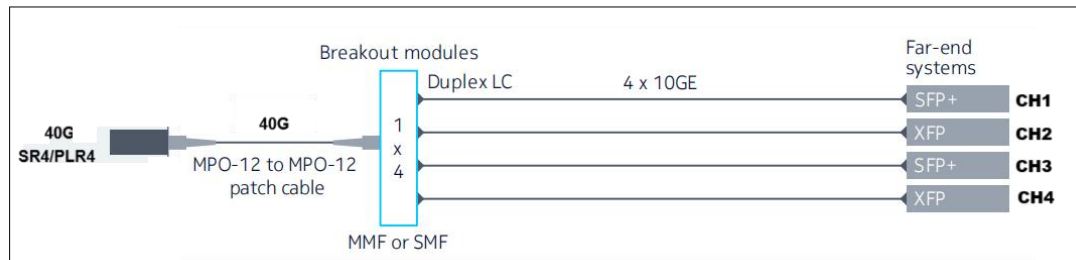


Table 1. 40G TO 4 x 10GE optical breakout solution component details

| Component       | Description                                      |
|-----------------|--------------------------------------------------|
| 40G QSFP+ SR4   | QSFP+ 40G SR4 MMF 850nm 100m MPO                 |
| 40G QSFP+ PLR4  | QSFP+ 40G PLR4 SMF 1310nm 10km MPO               |
| Rack            | 1RU chassis to host 4 breakout modules           |
| Breakout Module | 1 x MPO-12 to 6 (4 used) duplex LC breakout, MMF |
| Breakout Module | 1 x MPO-12 to 6 (4 used) duplex LC breakout, SMF |

### 100G TO 4X25G Solution

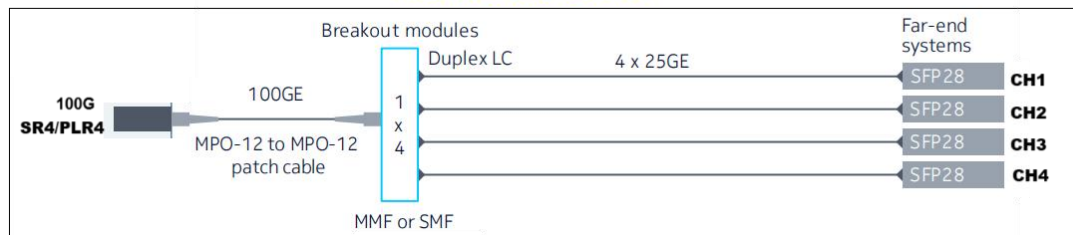


Table 2. 100G TO 4 x 25GE optical breakout solution component details

| Component       | Description                                      |
|-----------------|--------------------------------------------------|
| 100G QSFP+ SR4  | QSFP28 100G SR4 MMF 850nm 100m MPO               |
| 100G QSFP+ PLR4 | QSFP28 100G PLR4 SMF 1310nm 10km MPO             |
| Rack            | 1RU chassis to host 4 breakout modules           |
| Breakout Module | 1 x MPO-12 to 6 (4 used) duplex LC breakout, MMF |
| Breakout Module | 1 x MPO-12 to 6 (4 used) duplex LC breakout, SMF |