

### 100G QSFP28 O-Band xWDM Pluggable Optical Transceiver

#### Features

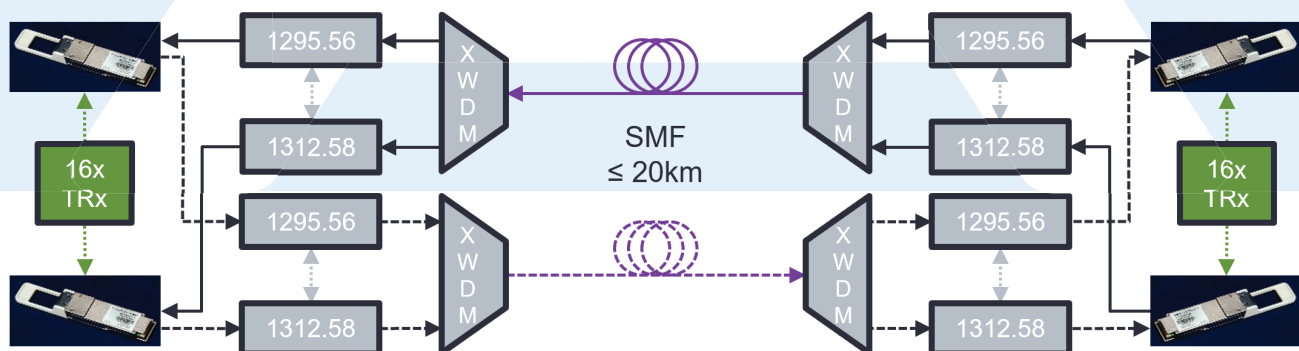
- Single-wavelength 100Gbps PAM4 transmission
- nCP4™ Silicon Photonics Optical Engine
- 16 channels at 200GHz channel spacing aligned to 800GHz LAN-WDM grid
- Multi-channel links up to 25km over SMF without dispersion compensation or amplifiers
- Single-channel links up to 30km over SMF
- Supports single-fiber Bi-Directional links
- 4x25.78 Gbps CAUI-4 host interface
- Compliant with QSFP28 MSA SFF-8636
- QSFP28 MSA digital monitoring functions
- RoHS compliant



#### Product Description

Alpine Optoelectronics' single-wavelength 100G QSFP28 O-band xWDM pluggable optical transceivers, enabled by Alpine's patented nCP4™ Silicon Photonics Optical Engine, are designed for multiple-channel 100GbE transmission up to 25km distance over standard G.652 single mode optical fibers (SMF) when using 8ch Mux/Demux and up to 20km when using 16ch Mux/Demux. Without Mux/Demux filters it supports single-channel links up to 30km. The module's optical interface utilizes a single wavelength in the O-band with wavelengths aligned to the LAN-WDM grid at 200GHz channel spacing. The receiver section uses a wideband APD detector and is WDM channel independent.

#### Application Case: 1.6T Passive Fiber Link



The 100G QSFP28 xWDM module supports 1.6Tbps passive fiber links up to 20km (800Gbps up to 25km). DCM and EDFA are not required. xWDM wavelengths are aligned to the LAN-WDM grid.

### Product Advantages

- Low cost passive solution for multiplexed 100GE links up to 25km
- 16 channels support 1.6Tbps links over one fiber pair
- Low latency is favorable for delay sensitive applications
- Low power consumption is compatible with common 100GE switches and routers
- QSFP28 form-factor plugs directly into standard 100GE switches (including white-box switches)

### Ordering Information

Part No.	Data Rate	Wavelength	Distance	Case Temperature	Channel No.
AXELPQ11C3X-xxx	100 Gbps	O-band xWDM	1ch up to 30km* 8ch up to 25km 16ch up to 20km	0°C to 70°C	-XXX See table below

\* Without Mux/Demux filters.

Channel No. (xxx)	Wavelength (nm)
<b>071</b>	<b>1295.56</b>
073	1296.68
075	1297.80
077	1298.93
<b>081</b>	<b>1300.05</b>
083	1301.18
085	1302.31
087	1303.45

Channel No. (xxx)	Wavelength (nm)
<b>091</b>	<b>1304.58</b>
093	1305.72
095	1306.85
097	1308.00
<b>101</b>	<b>1309.14</b>
103	1310.28
105	1311.43
107	1312.58

The 4 channels in **bold** font are aligned to 800GHz spacing LAN-WDM grid.

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