

Model 7090 1xN Series Optical Switch Card Specifications

General Specifications:

| | | | | |
|-------------------------------|--------------|--|-------|-------|
| Switching Time ⁽¹⁾ | | 1x4 | 1x8 | 1x16 |
| | Reset/Open | 250ms | 315ms | 450ms |
| | Settle/Close | 450ms | 500ms | 630ms |
| Maximum Switch Drive Current: | | 300mA | 300mA | 300mA |
| Dimensions | Width | 114 mm [4.5 in] | | |
| | Length | 272 mm [10.75 in] | | |
| | Height | 32 mm [1.25 in] | | |
| Weight | | 0.66kg | | |
| Temperature | Operating | 0 to 40 °C ⁽²⁾ | | |
| | Storage | -20 to 65 °C | | |
| Relative Humidity | | Up to 35 °C <80% RH Non-Condensing | | |
| EMC | | European Union Directive 89/336/EEC EN61326 | | |
| Safety | | European Union Directive 73/23/EEC EN61010-1 | | |

Referenced Switch Manufacturer Optical Specifications⁷:

| | Typ. | Max. | Units |
|--|----------------------------|---------|-------|
| Wavelength Range | 780 to 1650 | | nm |
| Switch Life | > 10 million cycles (min.) | | |
| Insertion Loss ³ | 0.6 | 1.2 | dB |
| Repeatability ⁵ | - | +/-0.03 | dB |
| Back Reflection (SM/MM) ⁴ | -60 / -20 | -55 / - | dB |
| Polarization Dependent Loss (PDL) ⁶ | - | 0.05 | dB |
| Crosstalk | - | -80 | dB |

NOTES:

1. Actuation time measured from system trigger. Reset/Open refers to Channel N to Reset time. Settle/Close refers to Reset to Channel N or Channel N to Channel M time. Reset position is optically blocked.
2. At higher operating temperatures, a typical 0.1 dB and 0.3dB additive insertion loss for each channel should be expected for the strain relief and bulkhead models respectively.
3. Measured at 23 ± 5 °C.
4. Based on standard 1m pigtail length.
5. Sequential repeatability for 100 cycles at constant temperature after warm up. (Difference in Insertion Loss).
6. Measured at 1550 nm.
7. All optical specifications are referenced without connectors and are guaranteed by switch manufacturer only. Connectorization data will be provided for Insertion Loss and Back Reflection for each channel per switch card.

Specifications are subject to change without notice.

Model 7090 Switch Properties

| Configuration | Single Channel, 1xN non-blocking switch | | | | |
|---------------------------|---|---|-----------------|-----------|--------------------|
| Model Number | # of Channels | Fiber Type | Wavelength (nm) | Connector | FiberLength |
| 7090-4-1 | 1x4 | Single-Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/APC | 1 meter |
| 7090-4-2BH ⁽⁸⁾ | 1x4 | Single-Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/SPC | Bulkhead Connector |
| 7090-8-3 | 1x8 | Single-Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/APC | 1 meter |
| 7090-8-4 | 1x8 | Multi-Mode fiber (MMF) 62.5/125 each ch. | 780-1350 | FC/SPC | 1 meter |
| 7090-8-5 | 1x8 | Single Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/SPC | 1 meter |
| 7090-16-6 | 1x16 | Single Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/SPC | 1 meter |
| 7090-16-7 | 1x16 | Single Mode fiber (SMF-28) 9/125 each ch. | 1290-1650 | FC/APC | 1 meter |

NOTE:

- This model contains a back plate with 5 FC/PC mating sleeve adapters. The fiber length is not applicable compared with the other models that are fiber pigtailed. Additional insertion loss due to the mating sleeve adapter is not accounted for in the referenced switch specification.