

# 0507 MEMS Optical Switch

Q1203-S



## 1x8 MEMS Optical Switch

The 1x8 fiber optic switch connects optical channels by redirecting incoming optical signals into selected output fibers. It features rugged thermal activated micro-mirror movements instead of rotation, and latches to preserve the selected optical path after the drive signal has been removed. That reduces packaging requirement, simplifies driving electronics, offering high stability as well as low cost.

### FEATURES

- High Reliability
- Latching
- Intrinsic Tolerance to ESD

### USE IN

- Channel Blocking
- Configurable Add/Drop
- System Monitoring
- Instrumentation

Wavelength Range	1260 nm to 1620 nm
Testing Wavelength	1310 nm/1490 nm/1550 nm/1625 nm/1650 nm
Insertion Loss	0.7 dB typ.; 1.2 dB max.
Return Loss	50 dB min.
Crosstalk	50 dB min.
PDL	0.10 dB max.
WDL	0.25 dB max.
TDL	0.20 dB max.
Repeatability	±0.05 dB max.
Repeatability Rate	20 Hz
Lifetime	10 <sup>9</sup> Cycle min.
Switch Time	5 ms max.
Transmission Power	500 mW max.
Operation Temperature	-5°C to +70°C
Storage Temperature	-40°C to +85°C
Switching Type	Latching
Dimension	42x26x9.4(±0.2) mm

**Order notes to our customers:** The default parameters are as follows. For special needs, please contact sales.

**1) Connector FC/APC, 900 um, 1 m by default for all devices except for high power devices.**

**2) Slow axis working, fast axis blocked, connector key is aligned to slow axis by default for PM devices.**

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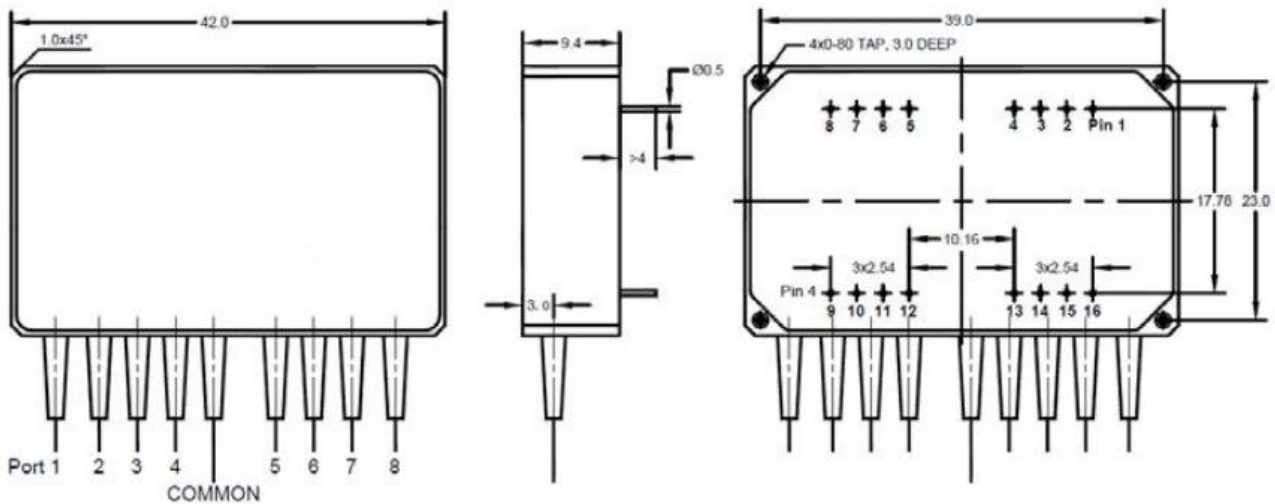


## MECHANICAL DIAGRAM

Optical Path	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12	Pin 13	Pin 14	Pin 15	Pin 16
Comm ↔ Port 1	DP	NC	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	GND	
Comm ↔ Port 2	NC	DP	DP	NC	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP		
Comm ↔ Port 3	NC	DP	NC	DP	DP	NC	NC	DP	NC	DP	NC	DP	NC	DP		
Comm ↔ Port 4	NC	DP	NC	DP	NC	DP	DP	NC	NC	DP	NC	DP	NC	DP		
Comm ↔ Port 5	NC	DP	NC	DP	NC	DP	NC	DP	DP	NC	NC	DP	NC	DP		
Comm ↔ Port 6	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	DP	NC	NC	DP		
Comm ↔ Port 7	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	DP	NC		
Comm ↔ Port 8	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP	NC	DP		

\* DP: Driving Pulse Voltage.

Driving Pulse Voltage	9.3 V typ.; 9 V min.; 9.5 V max.
Driving Pulse Width	12.5 ms typ.; 12 ms min.; 13 ms max.
Peak Current	290 mA typ.



Unit: mm

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