

Mechanical Optical Switches

Description

Gigalight's mechanical optical switches feature low insertion, quick switching speed and excellent repeatability, which makes it ideally used for ROADM, optical cross-connection systems, and system monitoring.

Features

- Low insertion loss & WDL
- Ultra fast switching speed
- Extremely stable latching mode
- Lower power consumption
- Exceptional reliability and stability



Applications

- Optical switching
- High speed protection
- System monitoring
- Test and measurements
- Fiber sensor system

Compliance

- Telcordia GR-1209-CORE
- Telcordia GR-1221-CORE
- Telcordia GR-1073-CORE
- RoHS

Specifications

Parameters	Value
Operating Wavelength (nm)	1260~1620 / 1310 /1550
Insertion Loss (dB)	≤ 1.0
PDL (dB)	≤ 0.2
RL (dB)	≥ 50
Cross Talk (dB)	≥ 40

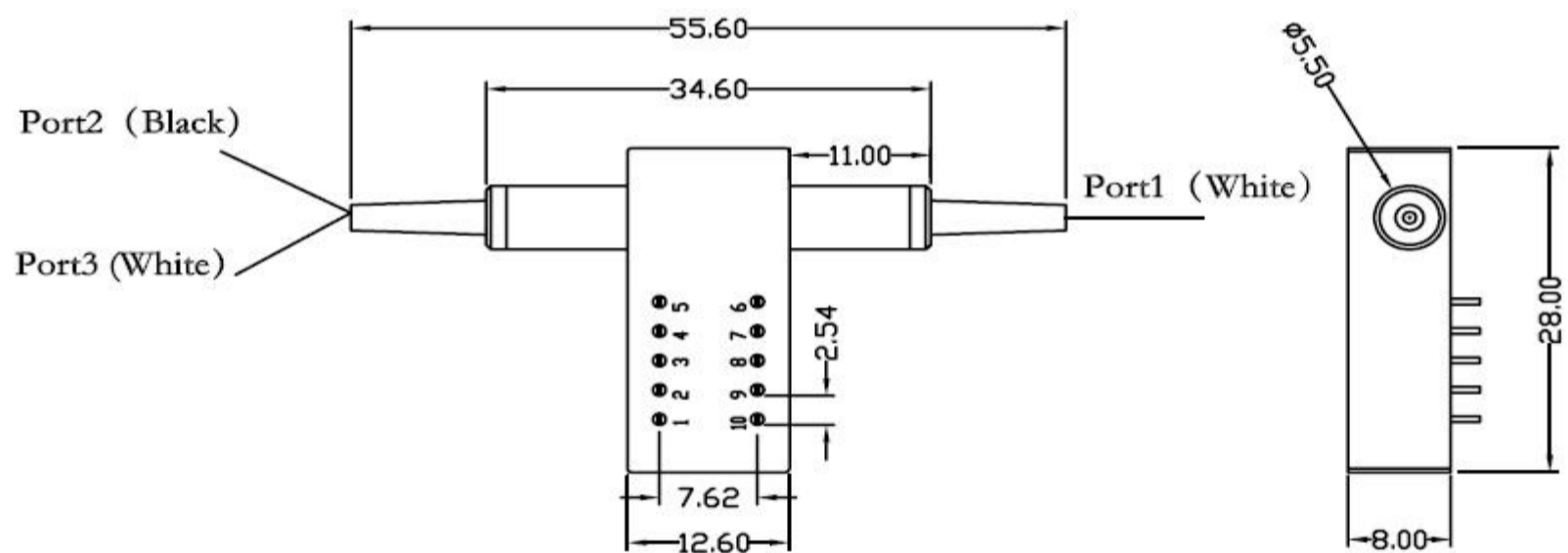
PMD (ps)	≤ 0.2
Repeatability (dB)	±0.01
Durability (Cycles)	≥ 10 Billion
Switch Time (μs)	≤ 200
Maximum Optical Power (mw)	≤ 500
Operating Temperature (°C)	-5 to +75
Storage Temperature (°C)	-40 to +85
Switch Power Voltage (V)	5
Dimensions (mm)	L28.6×W7.6×H8.5

Notes:

1. All the specifications are based on devices without connectors, and an additional 0.2dB loss ought to be added per connector.
2. Fiber type is G657A1.

Mechanical Dimensions

1×2



Pin Control Signal vs Switching Status

Non Self-Latching Type

Optical Path	Electric Drive				Status Sensor			
	Pin 5	Pin 6	Pin 1	Pin 10	Pin2-3	Pin3-4	Pin7-8	Pin8-9
Port1→Port2	GND	+5VDC	N/A	N/A	open	close	close	open
Port1→Port3	NO power		N/A	N/A	close	open	open	close

Self-Latching Type

Optical Path	Electric Drive	Status Sensor
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	Pin 1	Pin 5	Pin 10	Pin 6	Pin2-3	Pin3-4	Pin7-8	Pin8-9
Port1→Port2	GND	5VPulse	-	-	close	open	open	close
Port1→Port3	-	-	GND	5VPulse	open	close	close	open

Ordering information

GMS-	xx	x	x	x	x	x(x)	xx	x
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Switch Type	Driving Voltage	Relay Type	Wavelength	Fiber Type	Casing Type	Fiber Length	Connector
11=1×1	3=3V	1= Self-Latching	1=1310nm	1=G657A1	B=0.25mm	01=0.1m	0=None
12=1×2	5=5V	2= Non Self-Latching	2=1550nm	X=Customized	09=0.9mm	02=0.2m	1=FC/UPC
22=2×2			3=850nm		20=2.0mm	03=0.3m	2=FC/APC
24=2×4			3=1260nm to 1620nm		30=3.0mm	04=0.4m	3=SC/UPC
			X=Customized			4=SC/APC
						19=1.9m	5=LC/UPC
						20=2.0m	6=LC/APC
							X=Customized

Example P/N

GMS-12311109056 – 1×2 Mechanical Optical Switch with 3V Driving Voltage, Self-Latching Switch Type, 1310nm Wavelength, G657A1 fiber, 900µm loose tube Casing Type, 0.5m Fiber Length, and LC/APC Connector.

Note: If there is a demand for orders that are different from those described above, please contact sales.