



1x16 Mechanical Fiberoptic Switch

AC Photonics' MS Series switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using patent pending opto-mechanical proprietary configurations and activated via an electrical control signal. The switch offers ultra-high reliability and fast switching speed as well as bi-directional performance. The MS fiberoptic switches are true switching solutions for optical networking applications.



Features

- Unmatched Low Cost
- Low Insertion Loss
- Latching
- High Channel Isolation
- Highly Stable and Reliable
- Epoxy-Free Optical Path

Applications

- Optical Signal Routing
- Optical Network Protection/Restoration
- Configurable Optical Add/Drop
- Transmitter and Receiver Protection
- Network Test Systems
- Instrumentation

Performance Specifications

| Parameter | Specification | |
|------------------------------------|----------------------------|--------------|
| Operating Wavelength (nm) | 1260 ~ 1360 or 1510 ~ 1610 | 1310/1550±40 |
| Insertion Loss (dB) | 2.0(Max.) | 2.3(Max.) |
| Wavelength Dependent Loss(WDL)(dB) | ≤0.25 | ≤0.3 |
| PDL (dB) | ≤0.2 | |
| Cross Talk (dB) | ≥50 | |
| Return Loss (dB) | ≥50 | |
| Repeatability(dB) | <±0.05 | |
| Switching Speed(ms) | 25(Max.) | |
| +5 VDC Power Supply (V) | 5 (Typ.) | |
| +3.3 VDC Power Supply (V) | 3.3 (Typ.) | |
| +5 VDC Switch Current (mA) | 300 (Max.) | |
| Digital Interface Logic | TTL | |
| Power Handling(mW) | 300 | |
| Durability (Cycles) | 10 Million | |
| Operating Temperature (°C) | 0 ~ +70 | |
| Storage Temperature(°C) | -40 ~ +85 | |
| Dimensions (mm) | 110(L)x110(W)x23(H) | |

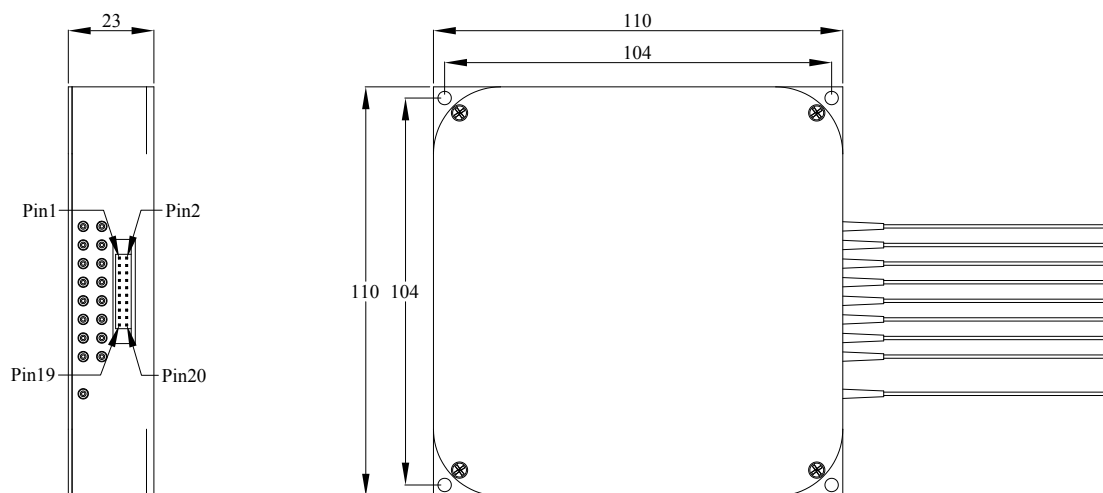
Specifications may change without notice.

Ordering Information

| Option | Operating Wavelength | Port | Grade | Pigtail Style | Fiber Length | In/Out Connector |
|----------|----------------------------------|-----------|-----------|----------------|--------------|--|
| L= | 15=1510~1610nm | 0116=1x16 | P=P Grade | 2=900um Jacket | 1=1m 2=2m | 0=None 1=FC/APC 2=FC/PC 3=SC/APC 4=SC/PC 5=ST 6=LC |
| Latching | 13=1260~1360nm 35=1310/1550nm | | | | | |



Dimensions (mm)



Electric Configuration

| | | | | | | | | | | |
|-------|-------|-----|---------|---------|----|-------|--------|-------|-------|-----|
| Pin # | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 |
| Name | +5V | +5V | RESERVE | RESERVE | TX | RX | STROBE | BUSY | ERROR | GND |
| Pin # | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| Name | +3.3V | D0 | D1 | D2 | D3 | OUTD0 | OUTD1 | OUTD2 | OUTD3 | GND |

Optical Switch Configuration

| Input Control Data | | | | Switch Status |
|--------------------|----|----|----|---------------|
| D3 | D2 | D1 | D0 | |
| 0 | 0 | 0 | 0 | C-Port1 |
| 0 | 0 | 0 | 1 | C-Port2 |
| 0 | 0 | 1 | 0 | C-Port3 |
| 0 | 0 | 1 | 1 | C-Port4 |
| 0 | 1 | 0 | 0 | C-Port5 |
| 0 | 1 | 0 | 1 | C-Port6 |
| 0 | 1 | 1 | 0 | C-Port7 |
| 0 | 1 | 1 | 1 | C-Port8 |
| 1 | 0 | 0 | 0 | C-Port9 |
| 1 | 0 | 0 | 1 | C-Port10 |
| 1 | 0 | 1 | 0 | C-Port11 |
| 1 | 0 | 1 | 1 | C-Port12 |
| 1 | 1 | 0 | 0 | C-Port13 |
| 1 | 1 | 0 | 1 | C-Port14 |
| 1 | 1 | 1 | 0 | C-Port15 |
| 1 | 1 | 1 | 1 | C-Port16 |