

# Ultra-Low Latency Optical Router (2x16) (<1.8ns)

## Product Description

Agiltron all optical routers achieve ultra-low latency that has not been attainable by electronic routers. The 1U system multicasts incoming optical signals and dynamically re-directs them into multiple output ports with built-in optical MEMS switches and amplifiers. These switches are controlled via Ethernet-GUI or RS232-GUI. The fiber output ports are located in the front panel.



## Performance Specifications

All Optical Router 2x16	Min	Typical	Max	Unit
Operating Wavelength		1310/1550 ± 50		nm
Insertion Loss <sup>[1]</sup>	0		6	dB
Latency <sup>[2]</sup>	1.8		20	ns
Return Loss		45		dB
Cross Talk		55		dB
PDL			0.05	dB
Switching Time		10	20	ms
Switch Durability	10 <sup>12</sup>			Cycle
Operating Temperature	0		70	°C
Storage Temperature	-40		85	°C
Electronic Ports		RJ45, USB		
Working Power	DC: 12~48V; AC: 100~240V (50/60 Hz)			
Fiber Type	SMF-28 or equivalent			

[1]. With amplifier

[2]. 1.8ns uses semiconductor amplifiers. 20nm use special fiber amplifier

### Features

- Ultra-low latency
- Dynamic switching
- Low optical loss
- Build-in signal booster

### Applications

- Algorithmic trading
- Defense systems
- Communication networks
- Data storage

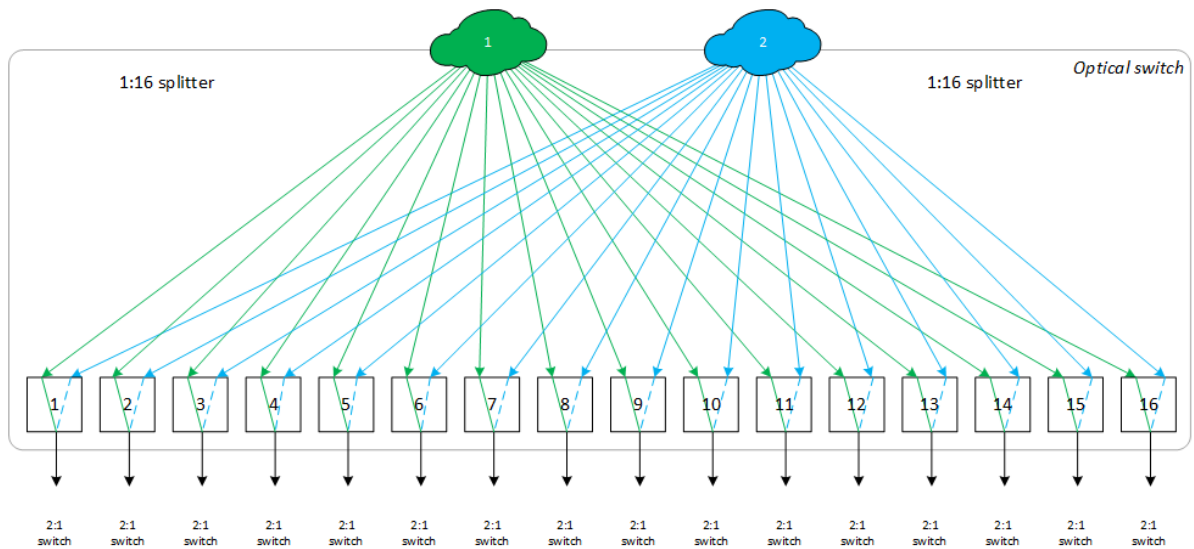
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## Mechanical Dimensions (Unit: mm)

1RU 19" mount rack. The input and output connectors and the control interface are on the front panel, while power inputs are on the rear panel.

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

## Optical Diagram



## Ordering Information

Prefix	Input	Output	Wavelength	Latency	Package	Fiber	Power Supply	Connector
MSWL-	1 = 1 2 = 2 3 = 3 4 = 4	12 = 12 16 = 16 18 = 18 32 = 32	1550 = 5 1310 = 3 Special = 0	20ns = 1 1.8ns = 2 Special = 0	1U = 1 Special = 0	SM28 = 1	12V DC = 1 48V DC = 2 100-240V AC = 3 Special = 0	FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Duplex LC = 8 Special = 0

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## Questions and Answers

**Q:** If the device were to fail, would the switch continue to pass the fiber light through the switch as configured before failure? When power is restored, does the IN/OUT configuration before failure remain in place?

**A:** This depends, if one mirror fails, it only affects the light go through that mirror. Yes, when power back up it will go to the previous points

**Q:** When power is restored, does the IN/OUT configuration before failure remain in place?

**A:** Yes, when power back up it will go to the previous flightpath

**Q:** If power to the device were shutoff, would the device continue to pass the fiber light as configured before failure?

**A:** This function is call latching. We uniquely offer MEMS latching switch but cost more.

**Q:** With the Ethernet Control Option, does the switch support SNMPv3

**A:** Yes. This internet standard protocol allows user to write their own control code

**Q:** With the Ethernet Control Option, what type of encryption does the SNMPv3 use?

**A:** MD5/DES

**Q:** With the Ethernet Control Option, could this device be controlled by multiple users at different locations and all users will also see the configuration updates?

**A:** Yes

**Q:** With the Ethernet Control Option, could this switch be controlled by multiple users at different locations and all users will also see the configuration updates?

**A:** Yes

**Q:** With the Ethernet Control Option, does the user need to install any software on their computer other than a web browser?

**A:** No