



PBSSF-S-R

10 /1 Gigabit (SM) Fiber Bypass Switch Stand Alone Unit

Product Description

Silicom PBSSF-S-R is external Bypass switches for 10 /1 fiber Gigabit Ethernet networks. The Silicom Bypass switch protects from network failures and Network maintenance by ensuring network integrity during power loss.

Silicom Bypass switch includes Network ports, Monitor ports and control port. The Network ports are used to connect to Switch / Router Network connections.

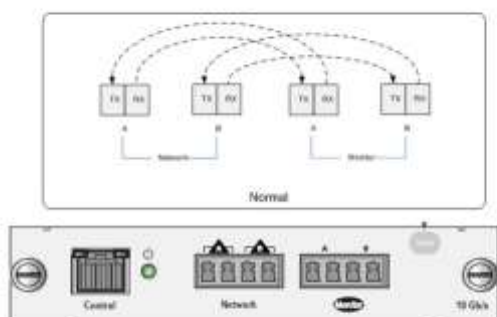
The Monitor ports are used for an in-line networking device. The control port is used to control the mode of the Bypass switch. On power on, the mode of the Bypass switch is set to Normal, on power lose, the mode of the Bypass switch is set to Bypass.



Functional Description

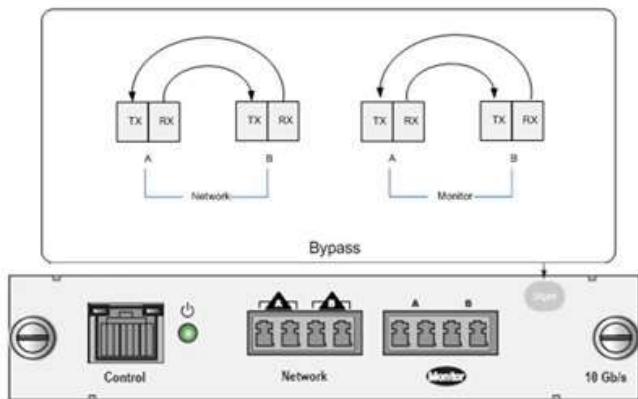
In Normal mode, the Bypass switch diverts the data from the Network ports data to the Monitor ports.

Figure: 1 – Normal Mode Functional Block Diagram



In Bypass mode, the Network data traffic routed directly to the other Network port and the Monitor data traffic routed directly to the other Monitor port

Figure: 2 – Bypass Mode Functional Block Diagram



Key Features

Bypass:

- Bypass Ethernet ports on Power lose
- Software Reliable Passive solution
- High speed switching
- Low insertions loss
- Throughput not affected and no added delay

PBSSF-S-R:

- Supports Fiber Gigabit Ethernet (1000Base-LX)
- Supports Long Range Fiber 10 Gigabit Ethernet (10GBase-LR)

Technical Specifications

Fiber Gigabit Ethernet Technical Specifications – (1000Base-LX) Adapters	
IEEE Standard / Network topology	Fiber Gigabit Ethernet, 1000Base-LX (1310nM)
Data Transfer Rate	2000Mbit/s in full duplex mode per port
Cables and Operating distance	Single-Mode fiber: 9um 2500m maximum at 9um ** ** Theoretical Distance – Defined as half a distance as stated by the IEEE 802.3 standard
Insertion loss (Normal Mode)	Typical: 1.2 dB Maximum: 1.6 dB
Insertion Loss (Bypass Mode)	Typical: 1.2 dB

	Maximum 1.6 dB
Fiber 10Gigabit Ethernet Technical Specifications – (10GBase-LR) Adapters	
IEEE Standard / Network topology	Fiber Gigabit Ethernet, 10GBase-LR (1310nM)
Data Transfer Rate	20Gbit/s in full duplex mode per port
Cables and Operating distance	Multimode fiber:9um 5000m maximum at 9 um ** Theoretical Distance – Defined as half a distance as stated by the IEEE 802.3 standard
Insertion Loss (Normal Mode)	Typical: 1.2 dB Maximum: 1.6 dB
Insertion Loss (Bypass Mode)	Typical: 1.2 dB Maximum: 1.6 dB
PBSSF-S : General Technical Specifications	
Size	x 152mm x 120.5mm x 24mm (6" x 4.75" x 1")
Voltage	+5V
Weight	690 gram (24.4 oz)
Power Consumption	(0.184W) 40mA at 4.6V
Operating Humidity	0%–90%, non-condensing
Operating Temperature	0°C – 50°C (32°F – 122°F)
Storage Temperature	-20°C–65°C (-4°F–149°F)
EMC Certifications	ClassB
MTBF*	> 50 years
PBSSF-S : LED Connector Specifications	
LEDs	(1) LED Blue LED indicating Power /Bypass

Connectors	(2) Quad LC per segment RJ45 Control connector – Pin 5 5v, Pin 4 GND, pin 1 and pin 2 are shorted
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Order Information

P/N	Description
PBSSF-S-R	10 /1 Gigabit (SM) Fiber Bypass Switch Stand Alone Unit
RK-1U-3-PBSS	1U Rack Mount Kit for Three PBSS products

Note: Model P/N /-R

-R: RoHS Compliant / Lead free adapter.

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