

# MANAGED SWITCH CONVERTER

## 100Base-FX to 8 Port 10/100Base-TX



### DESCRIPTION

The SWH-2109+BTFCx managed switch converter from PCT provides optical transport of 100 Mbps Ethernet signals for distances up to 100 km over singlemode fiber. Availability of CWDM optics takes advantage of WDM technology to maximize fiber usage with up to 10 wavelengths. An optional second fiber uplink port can be utilized to create a redundant link.

On the subscriber side, eight 10/100 Mbps copper ports with provisioning capabilities enable this remote CPE device to be used as an edge switch to service multiple customers in one location, or one customer with multiple services.

The SWH-2109+ can be configured with two redundant 100 Mbps fiber ports, plus eight 10/100 Mbps copper ports. This managed converter allows users to extend or interconnect their copper based Fast Ethernet network to a distance of 2 km using multimode fiber or up to 100 km using singlemode fiber.

Optional CWDM / WDM optical uplink option allows for maximum scalability. The SWH-2109+ combines the simple, affordable fiber connectivity of a media converter

with the flexibility and scalability of a switch.

The SWH-2109+ provides integrated layer 2 switching technology to provide advanced remote monitoring and management through SNMP for greater flexibility compared to the traditional Ethernet media converters. The SWH-2109+ provides wire-speed in-band diagnostics, store and forward switching, and other advanced features, such as uplink redundancy, VLAN tagging and double tagging, learned MAC address table and loopback testing. The SWH-2109+ is well suited for office buildings shared by multiple businesses, or single business with multiple services.

The SWH-2109+ is easy to install and maintain. Operational status may be viewed by per-port LEDs or remotely through the network. A management "console" program and MIB databases are provided for both local and remote status monitoring through SNMP software of HyperTerminal.



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### Features and Benefits

- Redundancy for FastE fiber uplinks
- Complies with IEEE802.3/3u 10/100Base-TX & 100Base-FX
- Local and remote status monitoring through SNMP (console and telnet management)
- Supports multimode and singlemode fiber
- RJ-45 supports 10/100 auto-negotiation
- SNTP network time sync
- Store and forward switch mechanism
- Weighted fair queuing
- Supports flow control
- LED indicators: power, status, link / act, FDX / COL
- Plug and play operation
- Standards based MIBs
- Separately ordered brackets for rack mounting

### Management Features

- IEEE 802.3x compliant flow control
- Traffic counters and RMON reports
- Port based VLAN and IEEE 802.1q tagging
- QinQ double tagging
- Port based priority and 802.1p priority supported
- Supports event log
- Supports DHCP client
- Support SNMP, console port, telnet management function
- Support TFTP / FTP firmware upgrade
- Plug and play installation

### Specifications

Parameters	Unit	SWH-2109+BTFC-Cxx	SWH-2109FC+SM30-F1
General			
Connector Type	--	SC	
Fiber Type	--	Singlemode	
Wavelength	nm	1430 to 1610	1310
Distance (Typ.)	km (mi)	100 (62.1)	30 (18.6)
TX Power			
Min.	dBm	-5	-0
Max.		-15	-8
RX Sensitivity	dBm	-30	-34
Link Budget	dB	25	19
External Power Adapter			
Input	VAC, Hz	100 to 240, 50 to 60	
Output	VDC	12	
Typical Operation & Storage Temperature			
Operation	°C (°F)	0 to 50 (32 to 122)	
Storage	°C (°F)	-20 to 60 (-4 to 140)	
Humidity	%	5 to 95, non-condensing	
Dimensions & Weight (H x D x W)			
Dimension	mm (in)	240 x 155 x 34 (9.5 x 6.1 x 1.3)	
Weight	kg (lbs)	1.75 (3.9)	
Emission / Safety			
Compliance	--	IEEE 802.3 10Base-T; 802.3u100Base-TX	
Electrical	--	UL, CSA	
EMI	--	FCC Class A, CE <sup>1</sup>	

Notes: 1. For further reports, please contact PCT

### Ordering Information

SWH-2109+BTFC-Cxx	Switch Converter, 100Base-FX to 8 10/100Base-TX, CWDM Ch. xx (SM / SC)
SWH-2109FC+SM30-F1	Switch Converter, 100Base-FX to 8 10/100Base-TX, 1310 nm, 30 km (SM / SC)

xx = CWDM Channels: 9 (1430 nm), 10 (1450 nm), 11 (1470 nm), 12 (1490 nm), 13 (1510 nm), 14 (1530 nm), 15 (1550 nm), 16 (1570 nm), 17 (1590 nm), 18 (1610 nm)

