

# Optical Protection Switch (OPS/OPS-T) Restoration Switch System (RSS/RSS-T)

## Features

- \* Wide operating wavelength
- \* Fast switching speed
- \* Low insertion loss
- \* High channel crosstalk
- \* Highly reliability and stability
- \* Auto / semi-auto / manual switching mode
- \* RS-232 or Ethernet interface for remote supervision.
- \* 1:1 or 1+1
- \* Complete product portfolio
- \* CISPR22 Class A Compliant

## Applications

- \* Optical path monitoring and recovery
- \* Local area networks
- \* Access/metropolitan area network

## Description

**GIP Technology** 1-RU optical protection switch (OPS) and 6-RU restoration switch system (RSS), featuring highly stable and reliable operation, are mainly used in the optical fiber transmission system's monitoring and restoration.

All statuses of this series of product can be remote-controlled through 10/100Base-T and come with user-friendly software.

In 1+1 2-pair-4-wire transmission system, **GIP**

**Technology** 1:2 OPS can play the role automatically and simultaneously switching from working fibers to protection ones in case of working-route failing.



The T-series integrates the discrete optical modules, GBE fiber extender and optical protection switch, into one module. It not only can meet customer's different requirement via flexible combination, but also can greatly reduce customer's operation administration and

maintenance cost. This series can automatically receive the signals ranging from 1100 to 1600nm and convert/amplify to the most popular used band of current telecom system.



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## Specifications

Optical Information		Unit	Description			
			OPS	OPS-T	RSS	RSS-T
Wavelength window(Tx)		nm	1310±20 and 1550±20		1310±20 or 1550±20	
Wavelength window(Rx)		nm	1310±20 and 1550±20			
OSC wavelength		nm	1625±30			
Bit rate		Gbps	-	1.25 or 2.5	-	1.25 or 2.5
Input power range(Tx)		dBm	-15 ~ +3			
Input power range(Rx)		dBm	-35 ~ +1			
Detection range		dBm	-29 ~ -5 (step = 2dB)			
Output power	Min.	dBm	-	-6	-	-6
Insertion loss(with connector)	Max.	dB	6.0 (System)	-	6.0 (System)	-
Return loss	Min.	dB	45			
Dispersion tolerance	Typ.	ps/nm	-	720	-	720
Dispersion penalty	Max.	dB	-	3.0	-	3.0
Connector			SC or FC			
<b>Electrical Information</b>						
Protection mode			1+1			
Switching mode			Automatic/Semi-Auto (Toggle) /Manual			
Operating voltage		Volt	-48VDC and 100~240 VAC			
Switching type			Latching			
Restoration time	Max.	ms	50			
Durability	Min.	Cycles	10 <sup>7</sup>			
Power consumption	Typ.	W	10		40	
Control interface			RS232 & SNMP			
<b>Environmental and Mechanical Information</b>						
Operating temperature		°C	0 ~ 50		0 ~ 45	
Storage temperature		°C	-20 ~ 80			
Relative humidity (non-condense)		%	5 ~ 85 (operating)			
<b>User Interface Information</b>						
LCD display			Transmitter and receiver power level Working wavelength, Switching level, Date, Time			
LED indicator			OK, PATH/W, PATH/P, SNMP, OSC, LD			
Alarm interface			Buzzer, Two normally open relay contacts			
Control key	LCD display		Left, Enter, Right			



## Optical Protection Switch (OPS/OPS-T) Restoration Switch System (RSS/RSS-T)

	Switch mode	A/S/M (Auto/Semi-Auto/Manual)	
	Push button	W/P, ACO, LD ON/OFF, RESET	
Status supervisory	Craft / Local control	RS232	
	Remote control	10/100Base-T (RJ-45, 8P8C)	
	Protocol/Interface	SNMP (MIB) and Ethernet	
<b>Outline Information</b>			
Dimension(19" or 23")		1-RU	6-RU



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