

The Optical A/B Protection Switch (OPSW) is designed to plug into PBN's latest generation Advanced Intelligent Multi-services Access platform - the AIMA3000.

The high isolation and impedance matched optical switch is microprocessor controlled and will operate in standalone mode without the need of management software.

Switching is based on the measurement of optical and RF signals. These signals are compared to preconfigured minimum and maximum thresholds parameters stored in the firmware tables.

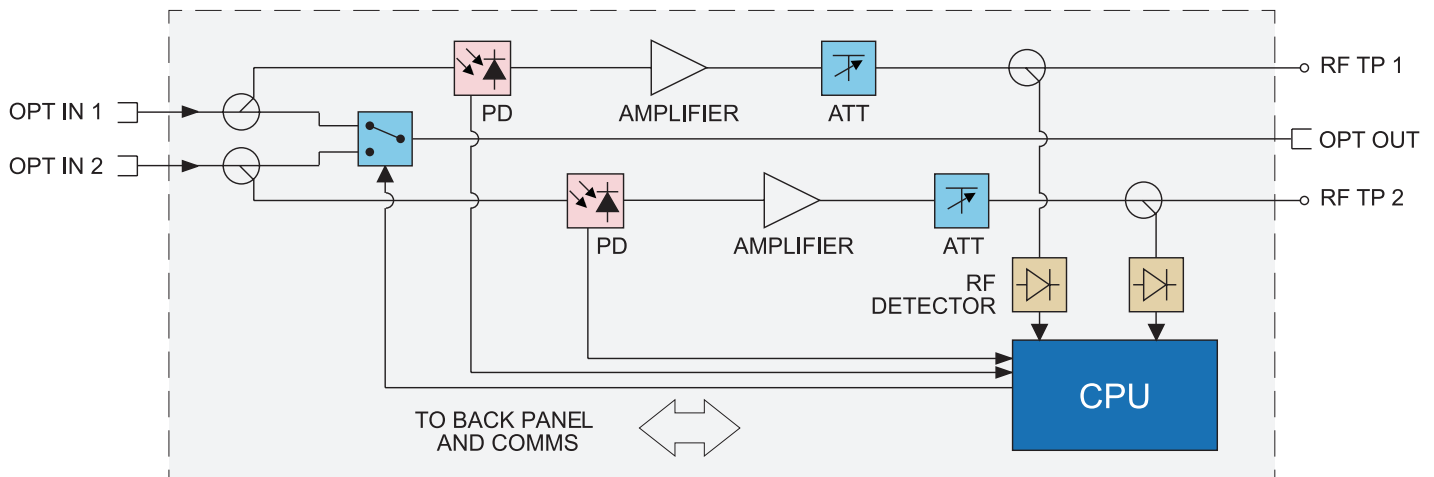
Manual operation of the OPSW or the configuration of the optical and RF thresholds can be set through the web interface using a through PBN's NMSE management software.



## Key Features and Functions

- Plug-and-play with the AIMA3000 platform
- Three adjustable input levels to suit different optical input ranges:
  - High: +10 dBm ~ + 25 dBm (251.18 mW ~ 316.22 mW)
  - Middle: 0 dBm ~ +15 dBm (1 mW ~ 31.62 mW)
  - Low: -10 dBm ~ + 5 dBm (0.1 mW ~ 3.16 mW)
- Fast switching time of 15 ms
- Non-Revert and Revert operating modes with user-adjustable delay
- Adjustable minimum thresholds of -10 dBm ~ +25 dBm on both inputs. Operators can define the maximum and minimum parameters for automated switching
- Optical switching based on optical or RF power levels
- Comprehensive status monitoring through the built-in web interface
- Remote firmware upgrade and auto upload/download of configuration files through ASMM web interface or using PBN's NMSE
- Bulk firmware updates through PBN's NMSE
- Fully FCC, CE, and RCM compliant

## Block Diagram



### Specifications

#### Optical Performance

Operating bandwidth	1270 ~ 1630 nm
Optical input range	-10 ~ +25 dBm
Insertion loss with connectors	2 dB maximum
Switch accuracy of optical	< 0.5dB
Optical crosstalk	55 dB maximum
Optical return loss	45 dB maximum
Optical connector type (with optical safety shutter)	SC/APC, FC/APC, LC/APC, E2000/APC
Alarms	Front-panel LEDs, SNMP Traps
Switching time	< 15 ms

#### RF Performance (Test point on the front panel)

RF power range <sup>(1)</sup>	0 ~ 30 dBmV/ch, 77ch NTSC
Switch accuracy of RF	< 1dB
RF Connectors	75 Ω Mini-SMB

#### General

Power supply	Powered via AIMA3000 backplane
Power consumption	< 6.0 W
Operating temperature	-5 °C to +55 °C
Storage temperature	-25 °C to +70 °C
Dimensions (WxDxH)	24.6 x 402 x 152.5 mm
Weight	0.88 kg
Supported network management options	PBN's NMSE or through ASMM's Web Interface

Note:  
(1) dBuV=60+dBmV

### Order Details

**A-OPSW-[Y]-[Z]** .....| Optical A/B Protection Switch

#### Options:

<b>Y</b>	Optical Connector Type
<b>S</b>	SC/APC *
<b>F</b>	FC/APC
<b>L</b>	LC/APC
<b>E</b>	E2000/APC
<b>Z</b>	Bandwidth
<b>1G</b>	45 ~ 1000 MHz

\* Standard option. Contact a PBN Sales Representative for availability of other options.

