

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

Providing reliable radio signal stability, the RFSW is an RF-based switching device designed for automatic or manual switching of radio signals. It maintains the RF output in the event of a loss or degraded signal of one of the two signals connected to its inputs.

Engineered for high-isolation, the impedance-matched RF switch relay, is controlled by microcontroller-based logic circuits. This intelligent microcontroller manages the switch based on the detection of RF input signal levels. In addition, the switch can operate based on user-defined minimum and maximum RF threshold levels. The RFSW switching module provides self-monitoring and communicates with the ASMM (AIMA3000 System Management Module) within the AIMA3000 chassis.

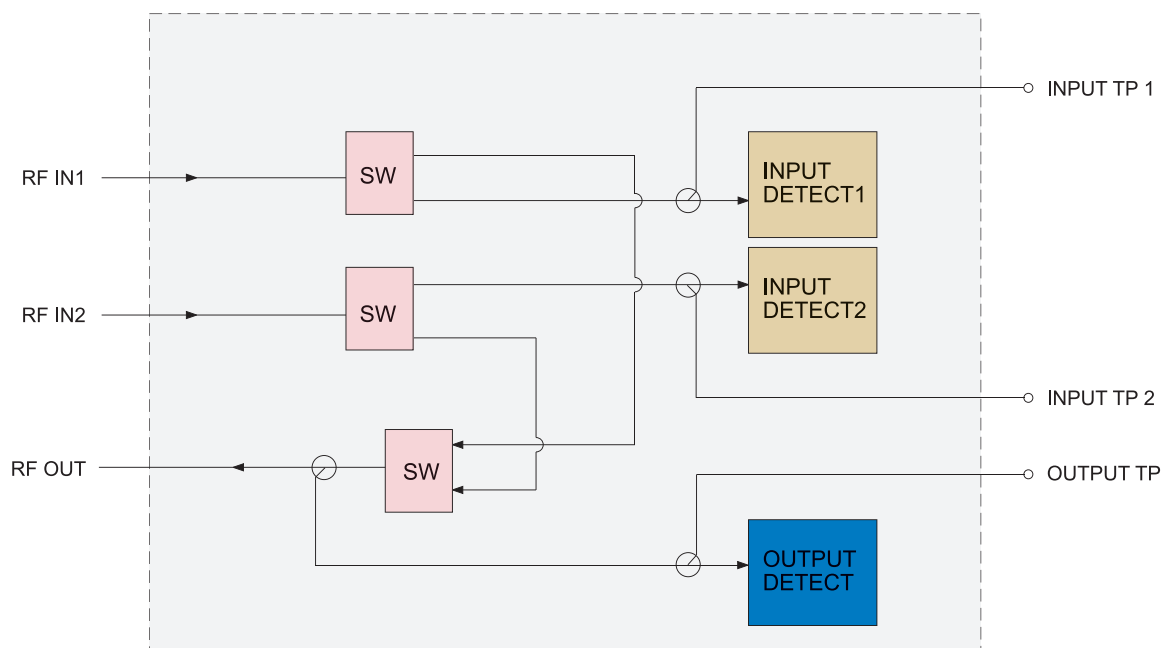
The switching action may be set to by automatic or manual operation. When in manual mode, the switch can be controlled through the ASMM's Web Interface or through PBN'S NMSE. The module's microcontroller determines when to switch signals based on total RF power as commonly used in forward transmission, or based on pilot tone detection of a single frequency as specified by the customer.



Key Features and Functions

- Plug-and-play AIMA3000 platform module
- Forward-path version (5 MHz to 1000 MHz) suits CENELEC and NTSC up to 127 channels, (both analog and digital)
- High reliability, compact design
- Operates in AUTO or MANUAL mode
- Operator defined adjustable thresholds for both inputs with the maximum and minimum signal parameters
- Comprehensive remote monitoring
- Configurable alarm threshold levels
- 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

RF Performance

RF bandwidth	5 MHz to 1000 MHz
RF flatness	± 0.5 dB (5 MHz to 1000 MHz)
Insertion loss	2 dB maximum
Isolation	65 dB
RF impedance	75 Ω
RF return loss	> 16 dB
RF test point relative to RF output port	-20 dB ± 1 dB
RF connectors	3 x GSK-type female
RF test points	3 x Mini-SMB
Switching time	< 15 ms
Alarms and status	Front-panel LEDs, SNMP Traps

General

Power supply	Powered via AIMA3000 backplane
Power consumption	< 0.1 W
Operating environment	temperature: -5 °C to +55 °C humidity: 90%(non-condensing)
Storage environment	temperature: -25 °C to +70 °C humidity: 90%(non-condensing)
Dimensions (WxDxH)	24.6 x 410 x 152.5 mm
Weight	0.88 kg
Supported network management options	PBN's NMSE or through ASMM's Web Interface

Order Details

A-RFSW-[Z] RF A/B Protection Switch

Options:

- Z Bandwidth
- 1G 5 ~ 1000 MHz (Standard)

