9. RF Switch Module WOS-WS-1000-4K

1. Product Overview

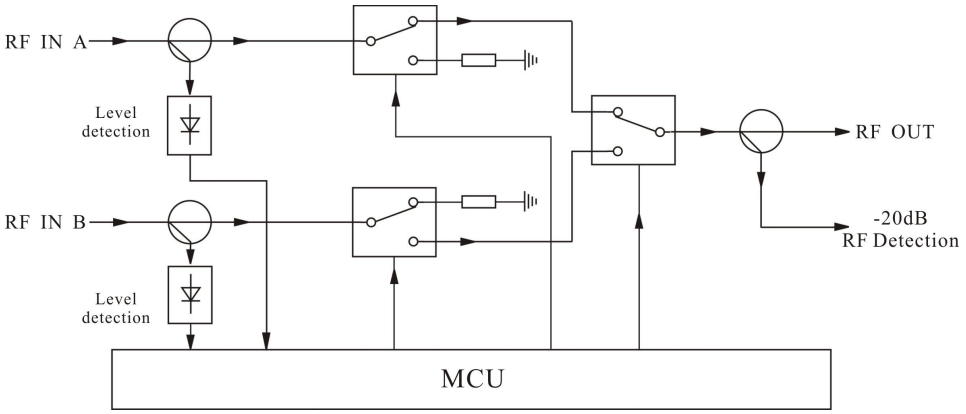
This product is designed for backup switching of HFC RF signal, automatic and manual switching is optional.

When automatic switching is selected, after the switching condition is set, it will automatically switch to the spare path if the RF signal in the main path fails, thereby improving the transmission security of the network. The two-stage RF switching maintains high isolation of the two input signals in the full frequency band.

2. Performance Characteristics

- Support hot swap.
- Frequency range: 5-1003MHZ.
- The switching mode is manual and automatic optional.
- Two independent RF input power detection.
- Two RF input isolations, up to 70dB.
- Internal temperature detection and monitoring functions.

3. Block Diagram



4. Technique Parameters

Item	Unit	Parameter
Frequency band	MHz	5～1003
Insertion loss	dB	≤2
Flatness in band	dB	±0.75
Isolation of A/B channel	dB	70
Input return loss	dB	≥16
Output return loss	dB	≥16
Switching time	mS	≤15
Test point	dB	-20±1
Maximum power consumption	W	≤ 2
Operating temperature	℃	-5 - +55
Storage temperature	℃	-30 - +70
Weight	Kg	1

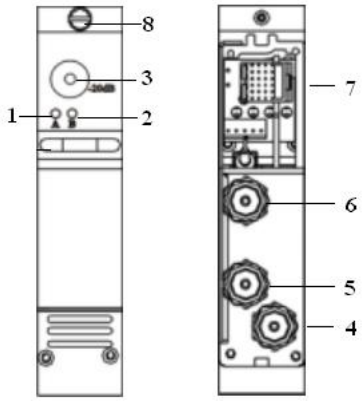
5. Operation instructions of the display menu

Once the module is installed, the corresponding slot in the display menu will highlight the module which is online. After entering the submenu, the following parameters can be seen:

A RF level	**x.xdBuV**	Input level of A channel, main channel.
B RF level	**x.xdBuV**	Input level of B channel, auxiliary channel.
SWCtrlMode	**Manual**	Switching mode: “Auto”—automatic mode, “Manual”—manual mode.
WorkChan	**A**	The current working channel: A—A channel, B—B channel
SW Level	**x.xdBuV**	The switching threshold under automatic switching mode. (Note)
ChanNum	**xx**	Channel numbers, range 0~100
DevTemp	**xx.x℃**	Module temperature
SN	**xxxxxx**	Serial number
Version	**x.xx**	Software version number
WorkTime	**x.xHour**	Total operating hours of the equipment

Note: When the main channel level is greater than the threshold, the main channel is selected. When the main channel level is less than the threshold, the auxiliary channel is selected.

6. Structure Description



No.	Component Description	Note
1	RF IN A signal indicator	Green：input level 65～115dBuV
2	RF IN B signal indicator	Red：outside the range
3	RF output test port (on the front panel)	-20dB
4	RF IN A (main channel)	Correspond to the F connector of A channel on the rear panel
5	RF IN B (auxiliary	Correspond to the F connector of B channel on the rear panel
6	RF signal output	Correspond to the F connector of D channel on the rear panel
7	Module socket	Used to connect module and rack
8	Module fixing screw	Used to fix the module

7. Installation

- This module can be installed in slots 1-16 and can be fully configured.
- Check whether the pins on the rear of the module are bent.
- Install the module in place along the guide and tighten the screws.

8. Naming Specification