Ver. 3.0

RF Switch • MX 2X1 RF Series

USER MANUAL

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PRODUCT SUMMARY

The MXRF-SW-2x1 is a 19” 1U rack mounted 2×1 RF switch with auto detection and is typically used for simple switching or redundancy of the RF signal path. When one of the RF signal inputs experiences a fault, it automatically switches to the other RF input signal, ensuring the system’s continued operation.

Product features

- High frequency monitor resolution.
- Web Interface
- Optional RS232 communicate port.
- Optional Integrated SNMP network management function.
- Automatic or manual switchover mode.
- User can set switch reference RF level

CONTROLS, INDICATORS, AND ALARMS

This section of the manual will give an overview of the available menus in the MX series RF switch and their descriptions. All instructions in Section 2.0 refer to the representation of the front panel shown in the diagram below. The user scrolls through the menus using the push bottoms found on the front panel, these are located just to the right of the LCD screen.

Operation of the control panel

Open menu

A. Plug in power supply

B. Turn on power switch located on the rear panel

Front panel will illuminate and show "**Model**"

Start-up main menu

Press ◀\▶ button to display below menu in sequence.

Menu # 1 - Descriptor

Read-only menu, indicates the model of this unit

Menu # 2 - S/N

Read-only menu, indicates the serial-number

Menu # 3 - Date Code

Read-only menu, indicates the date code

Menu # 4 - Switch Type

Read-only menu, indicates the RF switch type

Menu # 5 - Switch Mode

Adjustable list, indicates the current RF switch mode (may select automatic or may select input 1 or 2 manually)

Menu # 6 - Switch point

Adjustable list, indicates the subordinate channel RF switch point in dBuV (If you are accustomed to using dBmV for measuring RF signal strength, please keep in mind that dBmV values are 60dB lower than levels shown in dBuV. Example: +100 dBuV is equal to +40 dBmV. This setting allows you to select the minimum RF input threshold. If one of the inputs falls below this level, the unit is designed to switch to the alternative input.

Menu # 7 - RF input 1

Read-only menu, indicates the channel 1 RF detection in dBuV (please see dBuV to dBmV conversion chart for reference).

Menu # 8 - RF input 2

Read-only menu, indicates the channel 2 RF detection in dBuV (please see dBuV to dBmV conversion chart for reference).

Menu # 9 - RF output

Read-only menu, indicates the RF output in dBuV (please see dBuV to dBmV conversion chart for reference).

Menu # 10 - System Temp

Read-only menu, indicates the casing temperature

Menu # 11 - +5V monitor

Read-only menu, indicates the +5V voltage monitor

Menu # 12 - -5V monitor

Read-only menu, indicates -5V voltage monitor

Menu # 13 - +24V monitor

Read-only menu, indicates +24V voltage monitor

Menu #1 - IP

Adjustable list, display the IP address of SNMP

Menu #2 - Sub

Adjustable list, display the address of net mask

Menu #3 - GateWay

Adjustable list, display the gateway address of SNMP

Menu #4 - TRAP1

Adjustable list, display the TRAP1 address of SNMP

Menu #5 - TRAP2

Adjustable list, display the TRAP2 address of SNMP

Menu assistant manual

Press the right button to display each parameter
▶show parms

Stage 1 menu: Press left button to display previous menu, press the right button to display next menu, press the UP button to go back to the main menu, pressing the DOWN button is invalid (not used).
◀last ▲exit ▶next

Stage 2 menu: Press left button to display former menu, press the right button to display the next menu, press the UP button to go back the main menu, press DOWN button to set the submenu.
◀last ▲exit ▼edit ▶next

Stage 3 menu: Press left button to display current value minus 1, press right button for current value plus 1, press UP button to cancel the setting, press the DOWN button to save and exit the submenu.
◀dec ▲cancel ▼save ▶inc

When the Switch Mode is selected as “Automatic State” the input power on main channel will typically be the one running at a higher RF level and will be the primary output. If the main input is lower than the switch point power defined, and the input power on subordinate channel is higher than the switch point power defined, then the unit should switch the output from the secondary input

When the Switch Mode is selected as “Manual: Input 1 out; Input 2 out”, select the desired channel output.

*Note that RF levels displayed in LED display screen are in dBuV. If you are referencing your levels in dBmV, please keep in mind that dBmV values are 60dB lower than levels shown in dBuV. Example: +100 dBuV is equal to +40 dBmV.

Specs - Performance			Index	Supplement
RF feature	Operating bandwidth	(MHz)	5~1000	Will pass 1.2 GHz
	Input level range	(dBμV)	50~130	-10 ~ +70 dBmV
	Control level range	(dBμV)	60~120	0 ~ +60 dBmV
	Resolving capability	(dB)	≤0.5	
	Switch mode		AGC & MGC	
	Switch time	(ms)	≤10	
	Insert loss	(dB)	1.2~2.2	
	Flatness	(dB)	≤0.5	
	Return loss	(dB)	≥16	5~1000MHz
	Impedance	(Ω)	75	
	RF connector		F-female	F-Connector
General feature	Communication interface		RS232	
	SNMP Networkmanagement interface		RJ45	
	Power supply	(V)	95~250VAC	Optional -48VDC (30~60VDC)
	Power consumes	(W)	10	
	Operating temp.	(°C)	5~65	
	Storage temp.	(°C)	-40~85	
	Relative humidity	(%)	5~95	
	Size	(")	19×10.5×1.75	(W)×(D)×(H)