Ver. 1.0en



# RF Switch • MXRF-SW-2x1

# USER MANUAL



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## **Auto Detect RF Switcher**

2 inputs – 1 output

## 1.0 PRODUCT SUMMARY

## 1.1 Product summary

The MXRF-SW-2x1, a 19" 1U rack mounted  $2 \times 1$  RF switch, 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.

## 1.2 Product features

- High frequency monitor resolution.
- Optional RS232 communicate port.
- Optional Integrated SNMP network management function.
- Automatic or manual switchover mode.
- Switch reference level can be set by the LED control panel.

## 2.0 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.



Shown with RF ports on front panel for display purposes

## 2.1 Operation of the control panel

## 2.1.1 Open menu

- A. Plug in 110V power supply
- B. Turn on power switch located on the rear panel

Front panel will illuminate and show "Model"

#### 2.1.2 Start-up main menu

Press  $\triangleleft$  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 (please see dBuV to dBmV conversion chart for reference). 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

## 2.1.3 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).

   I ast ▲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
- 4. 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



### Shown with RF ports on front panel for display purposes

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.

dBuV	dBmV	dBuV	dBmV	dBuV	dBmV	dBuV	dBmV
50	-10	70	10	90	30	110	50
51	-9	71	11	91	31	111	51
52	-8	72	12	92	32	112	52
53	-7	73	13	93	33	113	53
54	-6	74	14	94	34	114	54
55	-5	75	15	95	35	115	55
56	-4	76	16	96	36	116	56
57	-3	77	17	97	37	117	57
58	-2	78	18	98	38	118	58
59	-1	79	19	99	39	119	59
60	0	80	20	100	40	120	60
61	1	81	21	101	41	121	61
62	2	82	22	102	42	122	62
63	3	83	23	103	43	123	63
64	4	84	24	104	44	124	64
65	5	85	25	105	45		
66	6	86	26	106	46		
67	7	87	27	107	47		
68	8	88	28	108	48		
69	9	89	29	109	49		

# dB Conversion Chart

\*Note that RF levels shown in dBmV are 60dB lower than levels shown in dBuV



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