Ver. 4.0

RF Switch • MX 2X1 RF Series

USER MANUAL

www.maxcomcorp.com

877-330-5333

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 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.

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

Operation of the control panel

Plug in power supply and the front panel will illuminate.

See next page for functions

Start-up main menu

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

Model

Read-only menu, indicates the model of this unit

S/N

Read-only menu, indicates the serial-number

RF IN 01

Read-only menu, displays the active input

RF IN 02

Read-only menu, displays the active input

RF Output Level

Read-only menu, displays the RF output level

Control Mode

Adjustable list, Auto/Manual

Input

Read-only menu, shows current RF input level

TH Low

Adjustable list, low threshold limits adjustable from 0 to +60

TH High

Adjustable list, high threshold limits adjustable from 0 to +60

RF Units

Adjustable list, switchable between dBmV or dBuV

Restore

Adjustable list, enable/disable, restore time is set in seconds from (0 to 400)

Ambient Temp

Read-only menu, indicates the ambient temperature

Power 1

Read-only menu, indicates online or offline

Power 2

Read-only menu, indicates online or offline

Config Ip

Adjustable list, Static/DHCP

Sub

Adjustable list, displays the address of the sub net mask

GateWay

Adjustable list, display the gateway address of SNMP

TRAP1

Adjustable list, display the TRAP1 address of SNMP

TRAP2

Adjustable list, display the TRAP2 address of SNMP

Continued from previous page:

Mac
Read only, indicates the mac address
Console Baud
Adjustable list, allows the user to adjust the Baud rate (1200 to 23400)
HW Ver
Read-only menu, indicates the hardware version
SW Ver
Read-only menu, indicates the software version
Reboot
Adjustable list, allows user to select
Reset Settings
Adjustable list, allows user to select
LCD Brightness
Adjustable list, allows users to select from (0 to 100)%

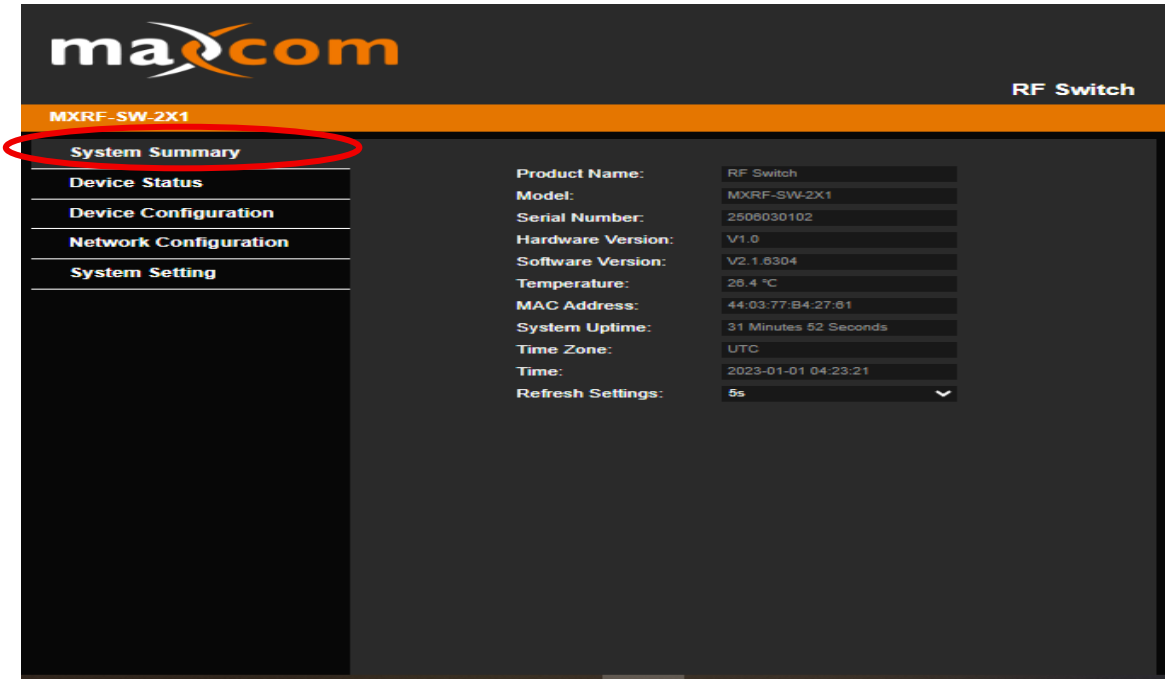
When the Switch Mode is selected as "Automatic" the primary input will typically be the primary output. If the main input is lower than the switch point RF level defined, the unit will switch to the secondary input

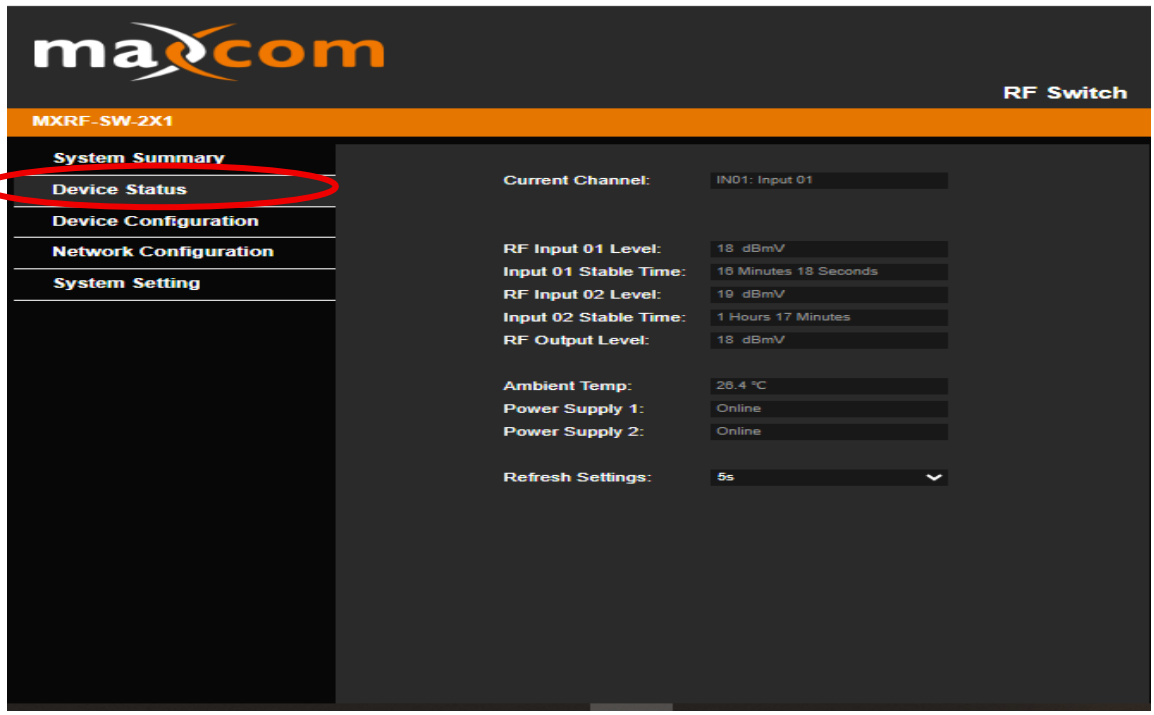
When the Switch Mode is selected as "Manual", select the desired channel output.

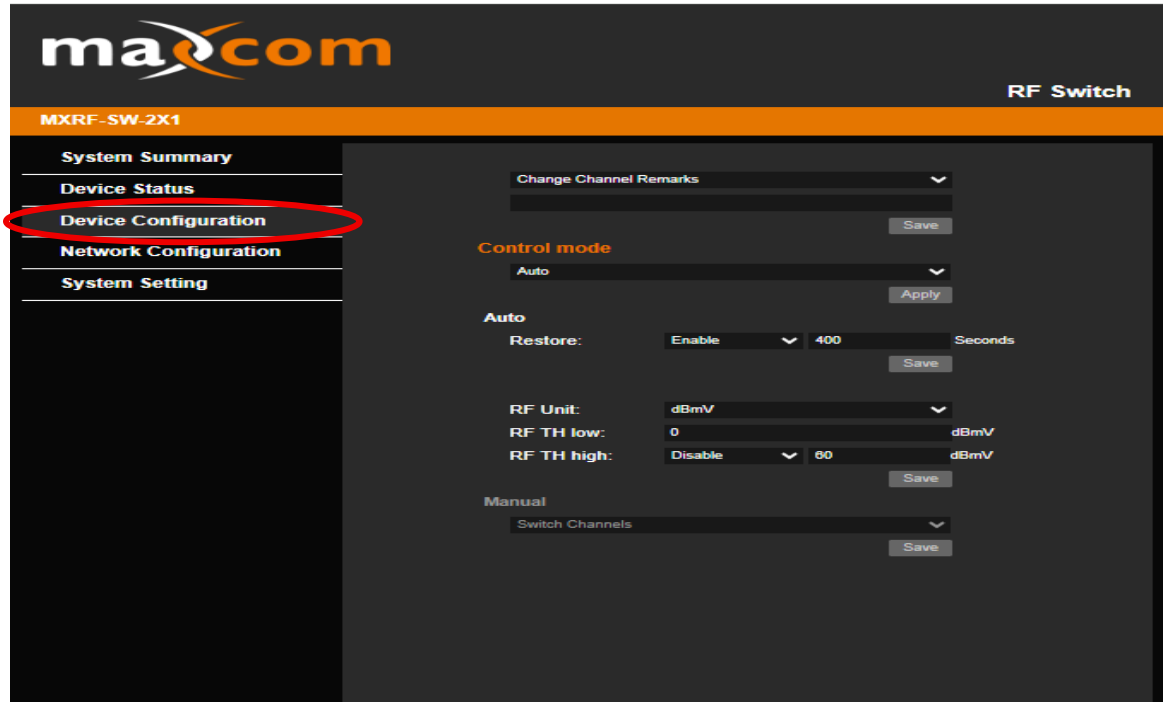
***Note that RF levels may be displayed in the LED screen as dBuV or dBmV, depending on the unit of measure selected under the "RF Units" category of the menu. *Note: dBmV values are 60dB lower than levels shown in dBuV. Example: +100 dBuV is equal to +40 dBmV.**

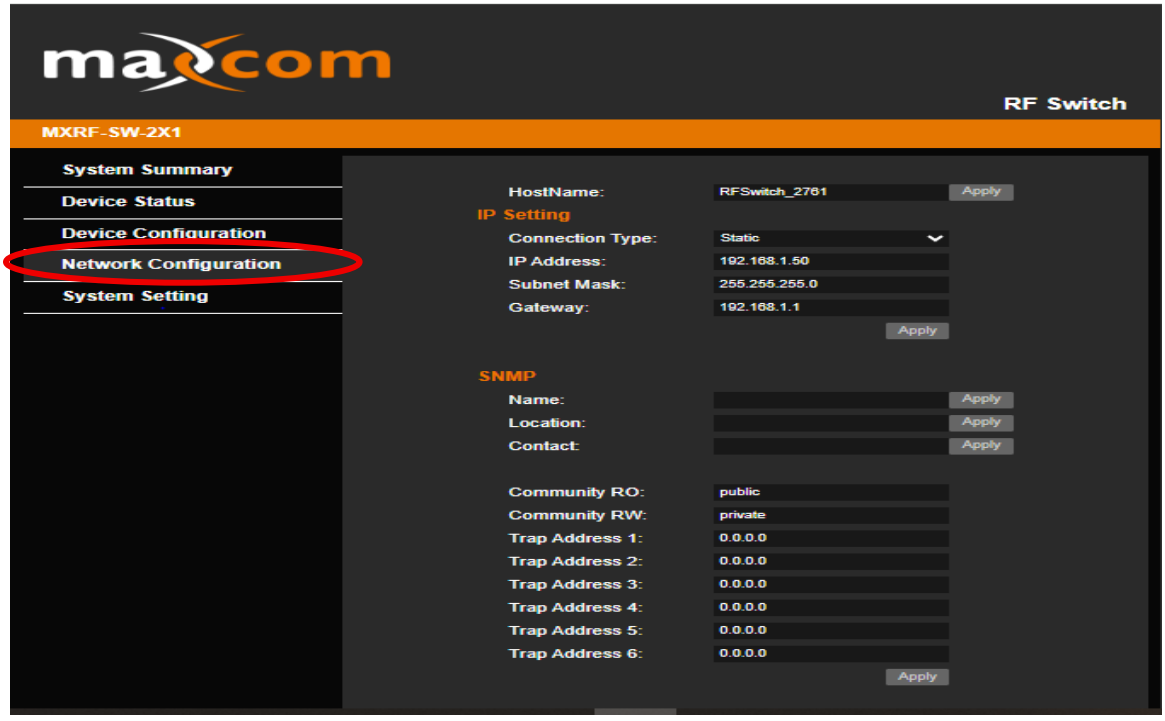
Supplemental: Web Interface

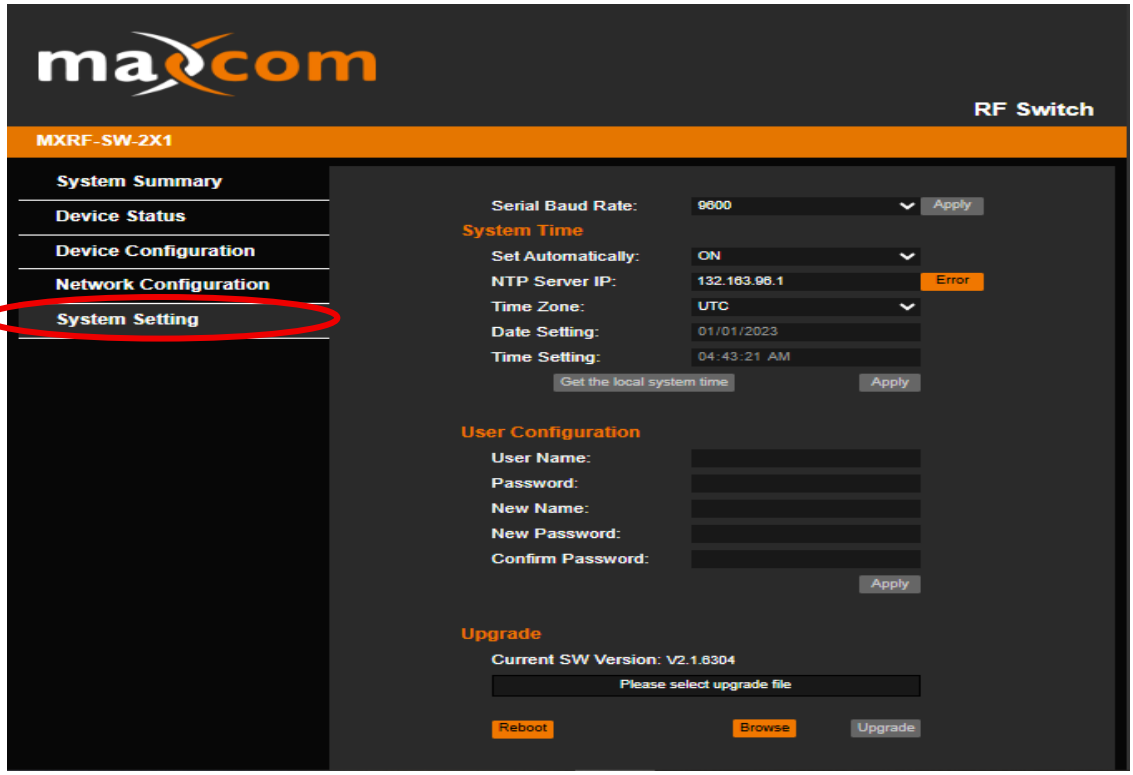
The MX-RFSW-2x1 may be accessed from a web interface using the RJ45 port.
The web interface can be viewed using the default IP address 192.168.1.50
The default username is "admin", and the default password is "admin"
The categories will be displayed on the left side of the screen as follows. The right side of the screen will display the parameters and settings:





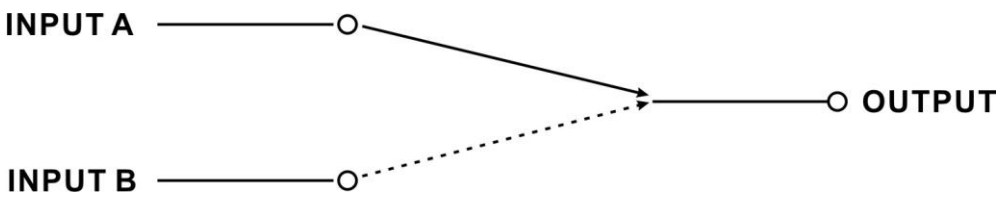

maxcom
RF Switch
MXRF-SW-2X1
System Summary
Device Status
Device Configuration
Network Configuration
System Setting
Change Channel Remarks
Save
Control mode
Auto
Apply
Auto
Restore:
Enable
400
Seconds
Save
RF Unit:
dBmV
RF TH low:
0
dBmV
RF TH high:
Disable
60
dBmV
Save
Manual
Switch Channels
Save


maxcom
RF Switch
MXRF-SW-2X1
System Summary
Device Status
Device Configuration
Network Configuration
System Setting
HostName:
RFSwitch_2761
Apply
IP Setting
Connection Type:
Static
IP Address:
192.168.1.50
Subnet Mask:
255.255.255.0
Gateway:
192.168.1.1
Apply
SNMP
Name:
Apply
Location:
Apply
Contact:
Apply
Community RO:
public
Community RW:
private
Trap Address 1:
0.0.0.0
Trap Address 2:
0.0.0.0
Trap Address 3:
0.0.0.0
Trap Address 4:
0.0.0.0
Trap Address 5:
0.0.0.0
Trap Address 6:
0.0.0.0
Apply



STANDARD OPERATION METHOD

Four indicators on the front panel show which RF path is being used. Inputs are represented by 1 and 2 respectively, where 1 is the main input and 2 is the backup input. The main and standby RF paths are automatically switched**:**



Front Panel Indicator Lights:

Turns Red if Alarm Condition Exists

Turns Red if Input 1 Levels fall outside set parameters *The Active Input routed to the output will blink

Turns Red if Input 2 Levels fall outside set parameters *The Active Input routed to the output will blink

Turns off if not power to PS 1

Turns off if no power to PS 2

Specs - Performance			Index	Supplement
RF feature	Operating bandwidth	(MHz)	5~1000	Will pass 1.2 GHz
	Input level range	(dBuV)	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	
	Insertion 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 Network and management 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)