

## **SPECIFICATION SHEET**

**JFW MODEL 50MS-421**

**MATRIX SWITCH**

JFW Industries, Inc.

Phone: 317-887-1340

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www.jfwindustries.com

Frequency Range	20-1000 MHz
Configuration	8 x 8 Blocking Solid-State Matrix Switch (See block diagram 092-9492) (Unused input ports are self-terminating) (Unused output ports are self-terminating) (all ports are bi-directional) (the ADMIN password is located on rear panel)
Enclosure Type	19 inch rack mount @ 6 RU high
Impedance	50 Ohms nominal
VSWR	1.6:1 typical 1.8:1 maximum
Insertion Loss	3.7 dB typical @ 20 MHz 4.8 dB typical @ 1000 MHz 6.0 dB maximum 20-1000MHz
Isolation	Output to Output: 90 dB typical 75 dB minimum  Input to Output: 90 dB typical 75 dB minimum  Input to Input: 90 dB typical 75 dB minimum
RF Input Power	+20 dBm average +27 dBm (no damage)
Switching Speed	20 microseconds (after command is received and processed) (3 milliseconds typical processing time)
Manual Control	20-Button Keypad and LCD display (IP Address configurable via keypad) (Net mask configurable via keypad) (Gateway configurable via keypad) (Baud rate configurable via keypad)
Remote Control	Ethernet (DHCP, TCP/IP, 10/100, up to 12 users) RS-232 (up to 115200 Baud)

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## Remote Commands

### Matrix Commands:

Matrix, Set Input, Set Output, Read Input, Read Output, Read All Inputs, Read All Outputs, Read Matrix Paths

### System Commands:

Help, Identification, Store, Recall, Pause, Net, Serial, Close, Disconnect, MOTD, Date, Message, Restrict, IDENT, Name, Show Users, Reboot, Uptime, Prompt

## Startup/Default States (configurable)

All ports OFF at startup (see MATRIX command)  
DHCP enabled (see NET command)  
4 Ethernet users (see NET command)  
Prompts off (see PROMPT command)

All of these default settings can be changed by user.  
Unit can be configured for up to 12 Ethernet users.

## RF Connectors

SMA, BNC or N female

## AC Supply

100-240 VAC @ 47-63 Hz  
0.50 Amps @ 120 VAC nominal  
0.25 Amps @ 240 VAC nominal  
2 Amp 5x20mm "Slo-Blo" AC fuse  
Littelfuse #215-002, JFW #025-021

## Temperature Ranges

Operating: 0°C to +70°C  
Storage: -55°C to +85°C

## Outline Drawing Numbers

092-9586 (SMA female)  
092-9831 (N female)

ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	08/24/2021		BAC 08/24/2021				
31568	01/31/2022	A	TRS 01/31/2022				