

**SPECIFICATION SHEET**

**JFW MODEL 50SA-181**

**SWITCH ASSEMBLY**

JFW Industries, Inc.  
Phone: 317-887-1340  
sales@jfwindustries.com  
www.jfwindustries.com

Frequency Range	DC-18 GHz
Configuration	4 individually controlled 1P2T failsafe reflective electro-mechanical RF switches (J1 is failsafe port)
Enclosure Type	Benchtop
Startup/Default States (configurable)	RF switches to port J1 at startup (see SWITCH command) DHCP enabled (see NET command) 4 Ethernet users (see NET command) Prompts off (see PROMPT command)
Impedance	50 Ohms nominal
VSWR	1.10:1 maximum DC-1 GHz 1.15:1 maximum 1-4 GHz 1.20:1 maximum 4-8 GHz 1.30:1 maximum 8-12 GHz 1.35:1 maximum 12-18 GHz
Insertion Loss	0.10 dB maximum DC-1 GHz 0.15 dB maximum 1-4 GHz 0.20 dB maximum 4-8 GHz 0.30 dB maximum 8-12 GHz 0.35 dB maximum 12-18 GHz
Isolation	85 dB minimum DC-1 GHz 80 dB minimum 1-4 GHz 70 dB minimum 4-8 GHz 65 dB minimum 8-12 GHz 60 dB minimum 12-18 GHz
RF Input Power (cold switched)	400 Watts average DC-200 MHz 300 Watts average 200-500 MHz 200 Watts average 500-1000 MHz 100 Watts average 1-4 GHz 90 Watts average 4-8 GHz 70 Watts average 8-12 GHz 60 Watts average 12-18 GHz
Switching Speed	15 milliseconds (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

RF Switch Control Commands:  
Switch, Set Switch, Read Switch, Set All Switches,  
Read All Switches

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

AC Supply

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

RF Connector

SMA female

Operating Temperature Range

0°C to +50°C

Physical Size

See outline drawing 092-5404



ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
15809	05/02/2008	A	TRS 05/02/2008	17968	12/09/2009	D	TRS 12/09/2009
15916	05/28/2008	B	TRS 05/28/2008	23194	08/26/2013	E	TRS 08/26/2013
16179	08/07/2008	C	TRS 08/07/2008	24239	12/09/2014	F	TRS 12/09/2014