

**SPECIFICATION SHEET**

**JFW MODEL 50BA-032-31**

**BENCHTOP PROGRAMMABLE ATTENUATOR ASSEMBLY**

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

Frequency Range	0.1-18 GHz
Configuration	Four individually controlled solid-state programmable attenuators
Enclosure Type	Mini-benchtop
Impedance	50 Ohms nominal
Attenuation Range	0-31 dB in 1 dB steps
Startup/Default States (configurable)	Maximum attenuation (see ATTEN STARTUP command) DHCP enabled (see NET command) 4 Ethernet users (see NET USERS command) Prompts off (see PROMPT command) Jog speed 5 (see JOG SPEED command)
VSWR	2.0:1 maximum < 1.7:1 typical
Attenuation Accuracy (guaranteed monotonic)	$\pm 0.50$ dB                    1-8 dB $\pm 1.00$ dB or 5%            9-31 dB (whichever is greater)
Insertion Loss	7.0 dB maximum 2.0 dB typical @ 0.1 GHz 3.2 dB typical @ 3 GHz 4.0 dB typical @ 6 GHz 5.5 dB typical @ 12.4 GHz 6.6 dB typical @ 18 GHz
RF Input Power	+20 dBm average +25 dBm (no damage) Warning: DC voltage not allowed on RF connections
Switching Speed	1 microsecond typical (after command is received and processed) (3 milliseconds typical processing time)
DC Supply	+12 Vdc (100-240 VAC AC/DC transformer included)
Manual Control	Momentary Lever Actuator Switch with 7-Segment LED Displays (tap to step, hold to jog) (jog speed range is 0-10) (jog speed set to 0 will disable all levers)
Remote Control	Ethernet (DHCP, TCP/IP, 10/100, up to 12 users) RS-232 (up to 115200 Baud)

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Remote Commands

Attenuator Control Commands:

Atten, Set Attenuator, Read Attenuator, Set All Attenuators, Read All Attenuators, Read All Extended, Fade Attenuator, Variable Attenuator  
Handover, Block, Set Block, Read Block, Read All Blocks, Fade Block, Variable Block Handover

Switch Control Commands:

Switch, Set Switch, Read Switch

System Commands:

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

RF Connector

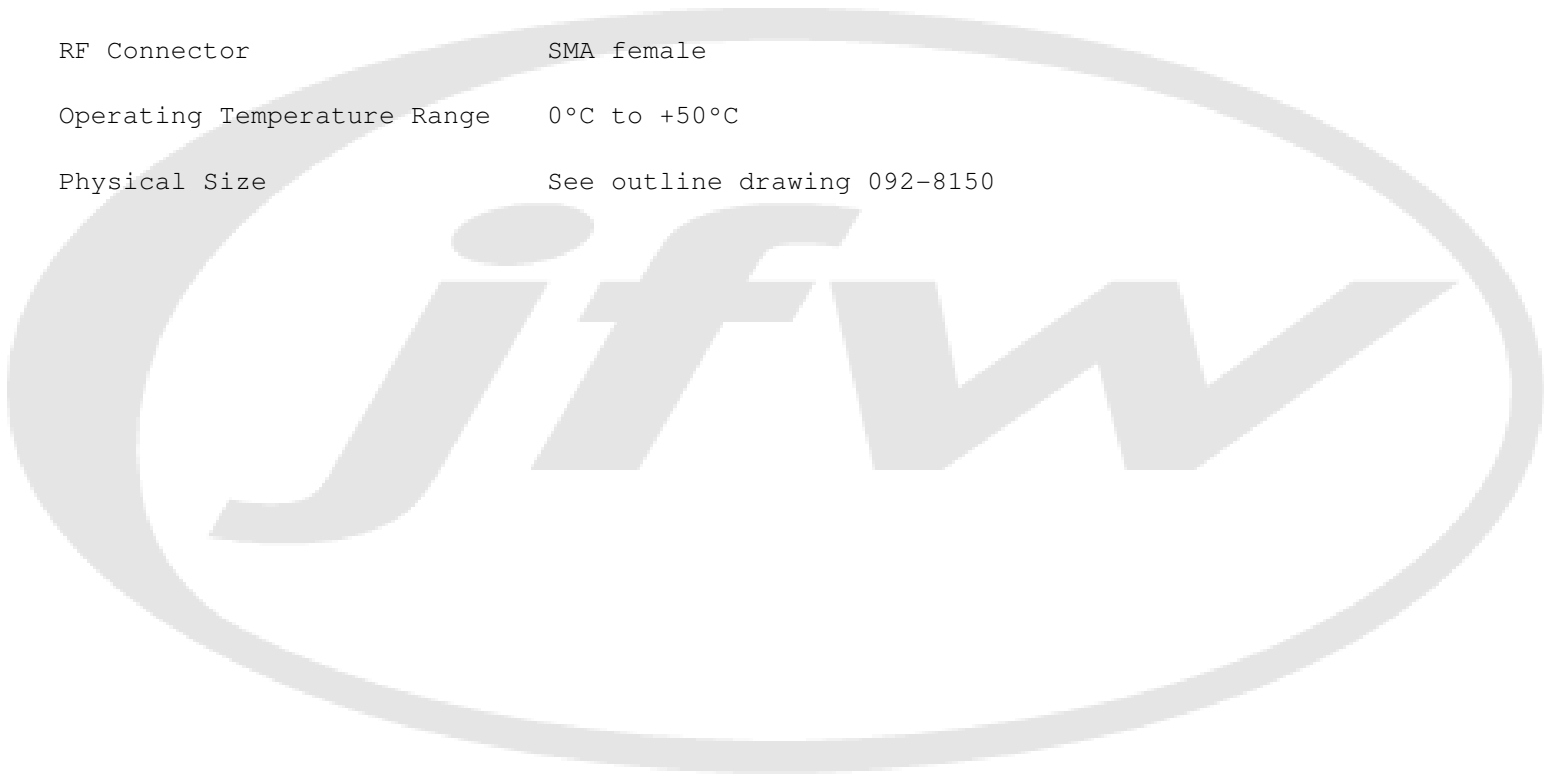
SMA female

Operating Temperature Range

0°C to +50°C

Physical Size

See outline drawing 092-8150



ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	09/26/2017		CLK 09/26/2017	29166	11/16/2018	C	TRS 11/16/2018
28667	04/19/2018	A	CLK 04/19/2018				
29102	10/22/2018	B	CLK 10/22/2018				