#### SPECIFICATION SHEET

JFW MODEL 50BA-031-31

### BENCHTOP PROGRAMMABLE ATTENUATOR ASSEMBLY

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

Frequency Range 0.1-18 GHz

Configuration Two 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

± 1.00 dB or 5%

± 0.50 dB

Attenuation Accuracy (guaranteed monotonic)

Insertion Loss

RF Input Power

(whichever is greater) 7.0 dB maximum

1-8 dB

9-31 dB

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

+20 dBm average +25 dBm (no damage)

> Warning: DC coupled, DC voltage must not exceed 0 Volts on RF connectors

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)

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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)				
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 092-6616				

ECR/ECN # DATE	REV	APPR / DATE	ECR/ECN # I	DATE	REV	APPR / DATE
09/26/2017		CLK 09/26/2017				
29101 10/22/2018	A	CLK 10/22/2018				