SPECIFICATION SHEET

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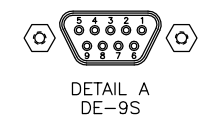Phone: 317-887-1340
sales@jfwindustries.com
www.jfwindustries.com

JFW MODEL 50BA-032-31
BENCHTOP PROGRAMMABLE ATTENUATOR ASSEMBLY

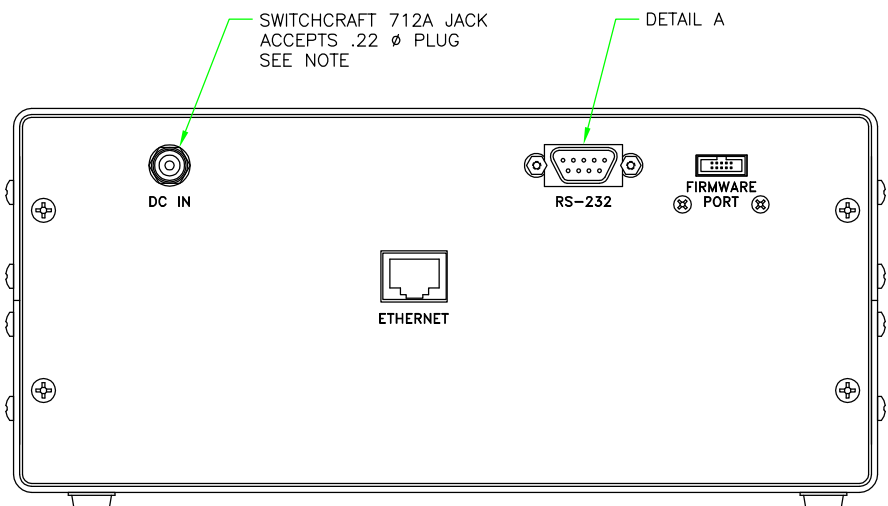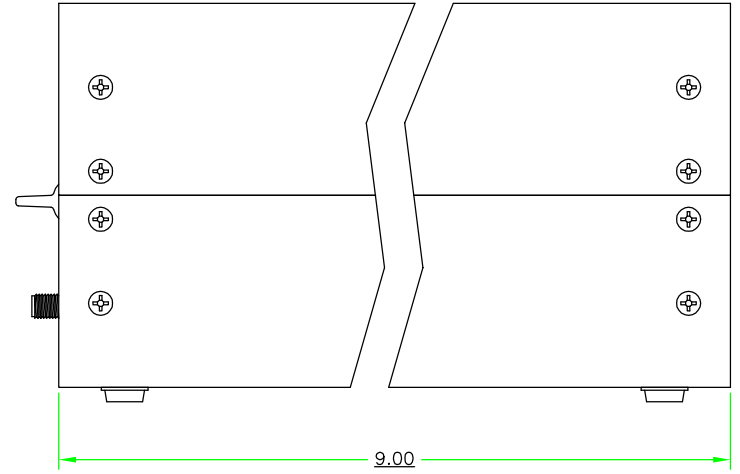|	
Frequency Range	0.1-18 GHz
Configuration	Four individually controlled solid-state programmable attenuators
Enclosure Type	Mini-benchtop
Impedance	50 Ohms nominal
Attenuation Range	0-31 dB in 1 dB steps
Startup/Default States (configurable)	Maximum attenuation (see ATTEN STARTUP command) DHCP enabled (see NET command) 4 Ethernet users (see NET USERS command) Prompts off (see PROMPT command) Jog speed 5 (see JOG SPEED command)
VSWR	2.2:1 maximum < 1.7:1 typical
Attenuation Accuracy (guaranteed monotonic)	± 0.50 dB 1-8 dB ± 1.00 dB 9-16 dB ± 1.25 dB 17-31 dB
Insertion Loss	7.5 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 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)

--CONTINUED--

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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 092-8150

ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	09/26/2017		CLK 09/26/2017				
28667	04/19/2018	A	CLK 04/19/2018				

JFW FORM E-7-F REV F

CURRENT ATTENUATION
DISPLAYED

MOMENTARY SWITCH FOR
MANUAL CONTROL
TAP TO STEP
HOLD TO JOG

SMA FEMALE
8-PLACES

ATTEN 1   ATTEN 2   ATTEN 3   ATTEN 4

jfw
50BA-XXX-XX
PROG. ASSEMBLY
XXX-XXXX MHz

IN   OUT   IN   OUT   IN   OUT   IN   OUT

4.00

.15

9.00

9.00

SWITCHCRAFT 712A JACK
ACCEPTS .22 Ø PLUG
SEE NOTE

DETAIL A

DC IN

RS-232

FIRMWARE
PORT

ETHERNET

REAR VIEW

DETAIL A
DE-9S
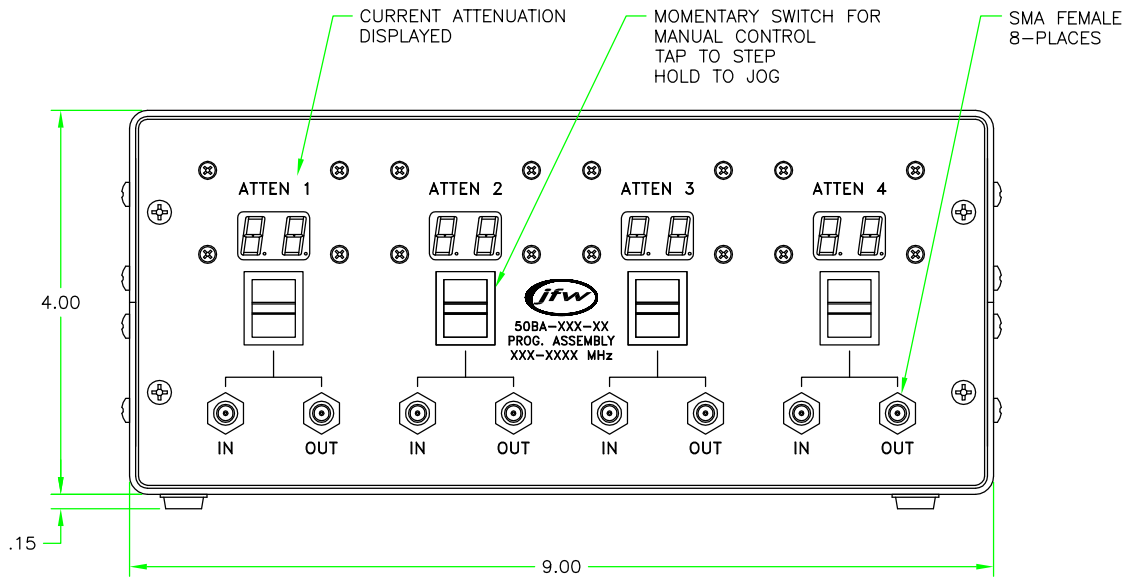
PIN	FUNCTION
1	CHASSIS GROUND
2	RECEIVED DATA
3	TRANSMITTED DATA
4	NO CONNECTION
5	SIGNAL GROUND
6	NO CONNECTION
7	RTS
8	CTS
9	NO CONNECTION

NOTES:
1) THIS UNIT IS SUPPLIED WITH A 12 VOLT TRANSFORMER (100-240V AC)
2) THIS DRAWING CORRESPONDS TO HARDWARE REVISION A

REV	ECN	DATE	BY	APPR
–	ISSUED	11-5-14	DTS	TRS
A	24846	1-22-15	JZ	BZ

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MATERIAL	PROPRIETARY INFORMATION
ALUMINUM ALLOY	
FINISH	ALL SURFACES ARE TO BE FREE OF BURRS, PITS, & SCRATCHES
CASE: BLACK PAINT / FRONT & REAR: GRAY PAINT	
MODEL	SCALE	TOLERANCES
50BA-XXX-XX	FULL	.XX±.010 .XXX±.005 .XX°±.5°
DESCRIPTION	DWG #
BENCHTOP ATTENUATOR	092-8150