

SPECIFICATION SHEET

JFW MODEL 50PA-976-XX

PROGRAMMABLE ATTENUATOR ASSEMBLY

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

Frequency Range	200-6000 MHz
Attenuation Range	0-95 dB in 1 dB steps
Configuration	Individually controlled solid-state programmable attenuators. Number of attenuators can be selected from 1 to 4 attenuators.
Manual Control & Display	Momentary Lever Switches with 7-Segment LED Displays (current dB settings displayed at all times) (each attenuator has its own lever switch) (tap lever to step, hold lever to jog) (jog speed range is 0-10) (jog speed set to 0 will disable all levers)
Enclosure Type	19 inch rack mount at 1RU high
Impedance	50 Ohms nominal
Startup/Default States (configurable)	Attenuators to 95dB at startup (see ATTEN 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.
VSWR	2.0:1 maximum < 1.9:1 typical 200-700 MHz < 1.6:1 typical 700-6000 MHz
Attenuation Accuracy	± 0.50 dB 1-3 dB ± 0.75 dB 4-7 dB ± 1.00 dB 8-11 dB ± 1.25 dB or 4% 12-95 dB (whichever is greater) (guaranteed monotonic)
Insertion Loss	8.8 dB maximum 4.1 dB typical @ 200 MHz 4.6 dB typical @ 700 MHz 8.3 dB typical @ 6000 MHz
RF Input Power*	+27 dBm average +33 dBm no damage
Switching Speed	4 microseconds typical (after command is received and processed) (3 milliseconds typical processing time)
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

System Commands:

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

RF Connector

SMA or N female

Operating Temperature Range

0°C to +50°C

AC Supply

100-240 VAC @ 47-63 Hz

Outline Drawing Numbers

092-8456-01 (N female, 1 attenuator)
092-8456-02 (N female, 2 attenuators)
092-8456-04 (N female, 4 attenuators)
092-9408-01 (SMA female, 1 attenuator)
092-9408-02 (SMA female, 2 attenuators)
092-9408-04 (SMA female, 4 attenuators)

Example Model Numbers

50PA-976-01 SMA (1 attenuators)
50PA-976-02 SMA (2 attenuators)
50PA-976-03 SMA (3 attenuators)
50PA-976-04 SMA (4 attenuators)
50PA-976-01 N (1 attenuators)
50PA-976-02 N (2 attenuators)
50PA-976-03 N (3 attenuators)
50PA-976-04 N (4 attenuators)

* Units shipped before 10/5/2017 (date code 1740) are only rated at +20dBm maximum. The JFW date code is a four digit code (YYWW) that follows the six digit serial number. For example date code 1908 is the 8th week of 2019.

ECR/ECN #	DATE	REV	APPR / DATE	ECR/ECN #	DATE	REV	APPR / DATE
	10/22/2015		TRS 10/22/2015	29857	10/02/2019	C	TRS 10/03/2019
28159	10/05/2017	A	CLK 10/05/2017	31285	08/12/2021	D	TRS 08/12/2021
29830	09/20/2019	B	CLK 09/20/2019	32078	08/18/2022	E	TRS 08/18/2022