# SPECIFICATION SHEET

# JFW MODEL 50PA-1019-XX PROGRAMMABLE ATTENUATOR ASSEMBLY

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

| Frequency Range   | 100 MHz-40 GHz  |  |  |
|---|---|--|--|
| Attenuation Range   | 0-62 dB in 1 dB steps   |  |  |
| Configuration   | Individually controlled solid-state programmable attenuators. Number of attenuators can be selected from 1 to 16 attenuators.                         |  |  |
| Enclosure Type  | 19 inch rack mount<br>2RU high(for 1-16 attenuators)  |  |  |
| Impedance   | 50 Ohms nominal   |  |  |
| Startup/Default States (configurable)                     | Attenuators to 62dB 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  | 1.6:1 typical 100MHz-18 GHz<br>1.8:1 typical 18-26.5 GHz<br>2.2:1 typical 26.5-40 GHz<br>2.8:1 maximum 100MHz-40 GHz                                  |  |  |
| Attenuation Accuracy<br>(Referenced to Insertion<br>loss) | 0-31dB<br>± 1.0 dB typical 100MHz-18 GHz<br>± 1.5 dB typical 18-26.5 GHz<br>± 2.0 dB typical 26.5-40 GHz<br>± 3.5 dB maximum 100MHz-40 GHz            |  |  |
|   | 31-48dB<br>± 2.0 dB typical 100MHz-18 GHz<br>± 2.0 dB typical 18-26.5 GHz<br>± 4.0 dB typical 26.5-40 GHz<br>± 5.0 dB maximum 100MHz-40 GHz           |  |  |
|   | 49-62dB<br>± 3.0 dB typical 100MHz-18 GHz<br>± 3.0 dB typical 18-26.5 GHz<br>± 4.0 dB typical 26.5-40 GHz<br>± 8.0 dB maximum 100MHz-40 GHz           |  |  |
| Insertion Loss  | 4.0 dB typical @ 100MHz 5.5 dB typical @ 3 GHz 8.0 dB typical @ 8 GHz 11.5 dB typical @ 18 GHz 15.0 dB typical @ 26.5 GHz 18.0 dB typical @ 40 GHz    |  |  |
| RF Input Power  | +20 dBm average<br>+25 dBm (0.1dB compression)<br>Warning: DC voltage not allowed on RF connections   |  |  |

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Switching Speed 1 microsecond typical

(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)

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

RF Connector 2.92mm female

Operating Temperature Range 0°C to +50°C

AC Supply 100-240 VAC @ 47-63 Hz

Physical Size See Outline Drawing 092-8602

Future Expansion If your testing needs change, you can have your 50PA-

1019-XX upgraded to have additional attenuators. This model is designed to control up to a maximum of 16

attenuators.

| ECR/ECN | # DATE     | REV | APPR / DATE    | ECR/ECN # DATE | REV APPR / DATE |
|---------|------------|-----|----------------|----------------|-----------------|
|         | 11/11/2016 |     | BAC 11/11/2016 |                |                 |
| 29166   | 11/16/2018 | A   | TRS 11/16/2018 |                |                 |
| 29850   | 09/30/2019 | В   | TRS 09/30/2019 |                |                 |

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