## SPECIFICATION SHEET

## JFW MODEL 50P-2014

## SOLID STATE PROGRAMMABLE ATTENUATOR

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

Frequency Range 200-6000 MHz

Impedance 50 Ohms nominal

Attenuation Range 0-95 dB in 1 dB steps

Attenuation Steps 1, 2, 4, 8, 16, 32 and 32 dB

VSWR 2.0:1 maximum

Attenuation Accuracy  $\pm$  0.50 dB 1-7 dB (guaranteed monotonic)  $\pm$  1.00 dB 8-11 dB  $\pm$  1.25 or 4% 12-95 dB (whichever is greater)

Insertion Loss 8.3 dB maximum

3.3 dB typical @ 200 MHz 3.5 dB typical @ 500 MHz 3.6 dB typical @ 700 MHz 4.4 dB typical @ 2000 MHz 7.9 dB typical @ 6000 MHz

RF Input Power\* +27 dBm (operating) +33 dBm (no damage)

Switching Speed 4 microseconds maximum

0.7 microseconds typical

DC Supply +5Vdc @ 2mA nominal

Control USB control

Test Software The inc (Microsoft .NET 4.0+) multiple (Windows Vista or greater)

The included JFW software allows control of

multiple USB devices.

JFW managed library available for development in

user made applications.

DC Connector USB MINI-B

6' USB A to USB Mini-B Cable Included

RF Connector SMA female

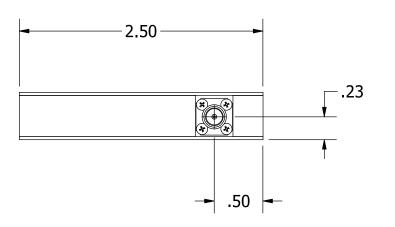
Operating Temperature Range -40°C to +85°C

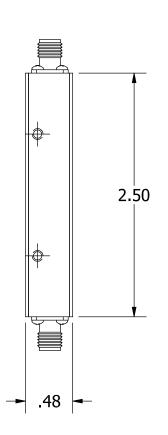
Physical Size See outline drawings 092-8062

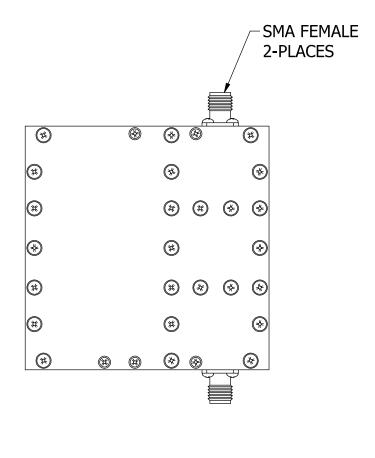
\* Units shipped before 10/5/2017 (date code 1740) are only rated at  $+20 \, \mathrm{dBm}$  maximum. The JFW date code is a four digit code (YYWW) that follows the six digit serial number. For example date code 1908 is the 8th week of 2019.

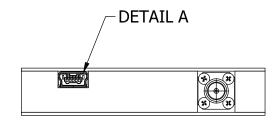
| ECR/ECN | # DATE     | REV | APPR / DATE    | ECR/ECN | # DATE     | REV | APPR / DATE    |
|---------|------------|-----|----------------|---------|------------|-----|----------------|
|         | 08/22/2014 |     | CLK 08/22/2014 | 28156   | 10/05/2017 | С   | CLK 10/05/2017 |
| 25004   | 02/26/2015 | A   | CLK 02/26/2015 | 28504   | 02/13/2018 | D   | TRS 02/13/2018 |
| 26294   | 02/11/2016 | В   | CLK 02/11/2016 | 29857   | 10/02/2019 | Ε   | TRS 10/02/2019 |

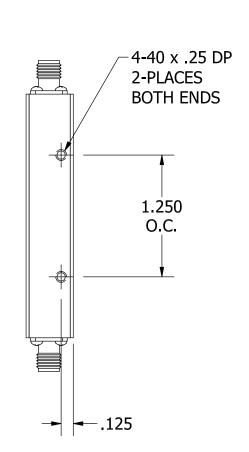
Page 1 of 1 JFW FORM E-7-F REV F

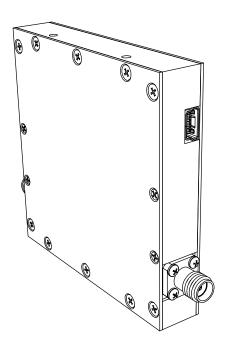


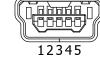












DETAIL A USB MINI-B

| PIN | FUNCTION      |
|-----|---------------|
| 1   | +5Vdc         |
| 2   | D-            |
| 3   | D+            |
| 4   | NO CONNECTION |
| 5   | GROUND        |

| REV | ECN    | DATE     | BY | APPR | IEW INDUC               | TDIEC INC   |
|-----|--------|----------|----|------|-------------------------|---|
| -   | ISSUED | 8-22-14  | BZ | TEZ  | JFW INDUS               | IRIES, INC.   |
| Α   | 24444  | 10-12-15 | JZ | TEZ  |                         | •   |
|     |        |          |    |      | www.jfwindustries.com   | PH: 317-887-1340  |
|     |        |          |    |      | ALUMINUM ALLOY          | PROPRIETARY INFORMATION                                   |
|     |        |          |    |      | ELECTROLESS NICKEL      | ALL SURFACES ARE TO BE FREE<br>OF BURRS, PITS & SCRATCHES |
|     |        |          |    |      | MODEL 50P-XXXX SCALE FL | JLL TOLERANCES  XX±.010 .XXX±.005 XX°±.5°                 |
|     |        |          |    |      | DESCRIPTION             | DWG#  |
|     |        |          |    |      | PROGRAMMABLE ATTENUATOR | 092-8062  |