

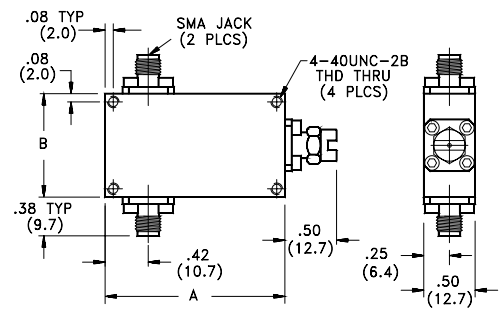
Flat with Frequency Types - Subminiature

Specifications

- Frequency Ranges:** 1-18 GHz as noted
- Attenuation Range:** 0 - 20 dB as noted
- Flatness:** see table
- Impedance:** 50 Ohms
- VSWR:** 1.50 max
- Insertion Loss:** 0.5 dB max
- Power:** 5 Watts average, 3Kilowatts Peak
- Operating Temperature Range:** -65 to +125C
- Resetability:** 0.1 dB max
- Finish:** Housing is painted grey per MIL-F-14072
Connectors are Passivated Stainless Steel

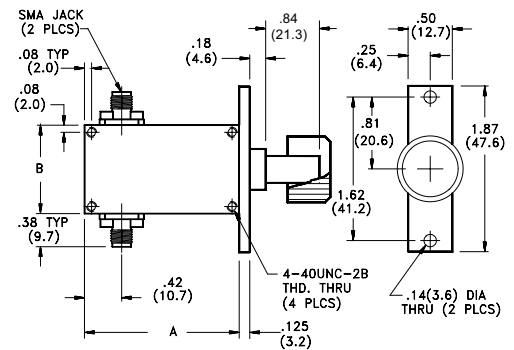


Midwest Microwave's series of Subminiature Continuously Variable Attenuators were designed to meet the most stringent environmental conditions. The Flat with Frequency Types are useful for applications where a specific level of attenuation is required over a frequency band and reasonable attenuation flatness over the frequency band is necessary. The units are available in a Standard simple locking type configuration, a Panel mount type with a knob, or a Turns-counting dial type, also panel mounted, for reference setting or if calibration is desired. SMA connector configurations are standard, however Type N or TNC connector configurations are also available (see note below for designation information).

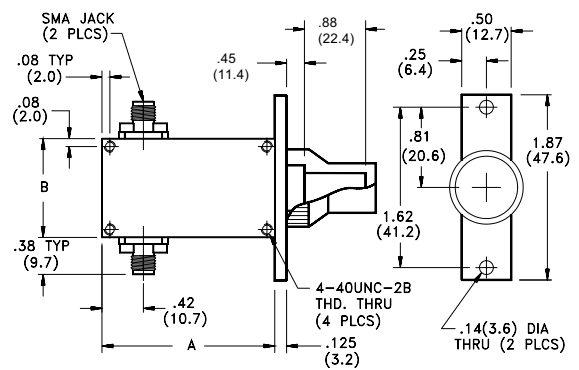


S = Standard Locking Nut Type

Flat with Frequency Models				
Frequency Range (GHz)	Atten Range (dB)	Flatness (\pm dB)	Model Number	Case Style
2.0 - 4.0	10	1.5	CVA-FS82-10-SMA-79	2
	20	1.5	CVA-FS82-20-SMA-79	2
4.0 - 8.0	10	1.0	CVA-FS83-10-SMA-79	2
	20	1.5	CVA-FS83-20-SMA-79	2
8.0 - 12.4	10	0.5	CVA-FS84-10-SMA-79	2
	20	1.0	CVA-FS84-20-SMA-79	2
8.0 - 18.0	10	1.5	CVA-FS85-10-SMA-79	1
	20	1.0	CVA-FS86-10-SMA-79	1



P = Panel Mounting Type



T = Turns Counting Panel Mounting Type

Case Style	DIM "A"	DIM "B"
1	.615 (15.6)	.375 (9.5)
2	.765 (19.4)	.525 (13.3)

Notes:

1. To designate a Panel type option, substitute "P" for "S" in the Model No..
2. To designate a Turns-Counting Dial option, substitute "T" for "S" in the Model No..
3. To designate Type N or TNC connectors, substitute "NNN" or "TNC" for "SMA" in the Model No.

Attenuators

Continuously Variable

1 - 18 GHz Level Set Types - Miniature

Specifications

Frequency Range: 1-18 GHz as noted

Attenuation Range: 0 - 40 dB as noted

Impedance: 50 Ohms

VSWR: 1.50 max

Insertion Loss: 0.5 dB max

Power: 5 Watts average, 3Kilowatts Peak

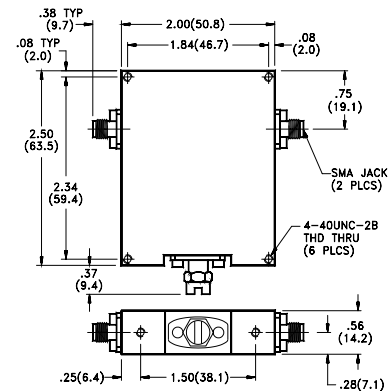
Operating Temperature Range: -65 to +125C

Resetability: 0.1 dB max

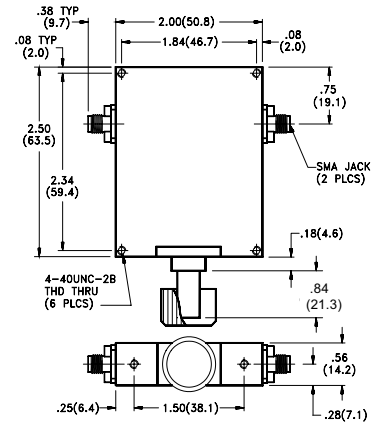
Finish: Connectors are Passivated Stainless Steel

Housings are Irridited Aluminum Painted Grey per MIL-F-14072

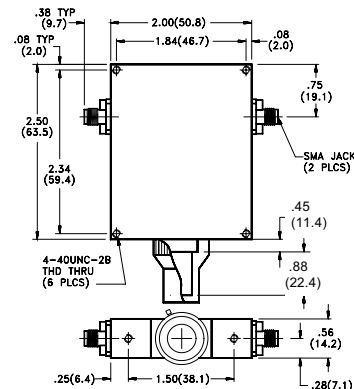
Midwest Microwave's series of Level Set Miniature Continuously Variable Attenuators were designed to meet the most stringent environmental conditions. The Level Set Types are useful for applications where a specific level of attenuation is required at one frequency and flatness over the frequency band is not necessary. The units are available in a Standard simple locking type configuration, a Panel mount type with a knob, or a Turns-counting dial type, also panel mounted, for reference setting or if calibration is desired. SMA connector configurations are standard, however Type N or TNC connector configurations are also available (see note below).



S = Standard Locking Nut Type



P = Panel Mounting Type



T = Turns Counting Panel Mounting Type

Level Set Models		
Freq Range (GHz)	Atten Range (dB)	Model Number
1.0 - 2.0	15	CVA-LS91-15-SMA-79
2.0 - 4.0	10	CVA-LS92-10-SMA-79
	20	CVA-LS92-20-SMA-79
	30	CVA-LS92-30-SMA-79
4.0 - 8.0	10	CVA-LS93-10-SMA-79
	20	CVA-LS93-20-SMA-79
	30	CVA-LS93-30-SMA-79
	40	CVA-LS93-40-SMA-79
8.0 - 12.4	10	CVA-LS94-10-SMA-79
	20	CVA-LS94-20-SMA-79
	30	CVA-LS94-30-SMA-79
	40	CVA-LS94-40-SMA-79
12.4 - 18.0	10	CVA-LS95-10-SMA-79
	20	CVA-LS95-20-SMA-79
	30	CVA-LS95-30-SMA-79
	40	CVA-LS95-40-SMA-79

Notes:

1. To designate a Panel type option, substitute "P" for "S" in the Model No..
2. To designate a Turns-Counting Dial option, substitute "T" for "S" in the Model No..
3. To designate Type N or TNC connectors, substitute "NNN" or "TNC" for "SMA" in the Model No.

Flat with Frequency Types - Miniature

Specifications

Frequency Ranges: 1-18 GHz as noted

Attenuation Range: 0 - 30 dB as noted

Flatness: see table

Impedance: 50 Ohms

VSWR: 1.50 max

Insertion Loss: 0.5 dB max

Power: 5 Watts average

Peak Power: 3 Kilowatts Peak

Operating Temperature Range: -65 to +125C

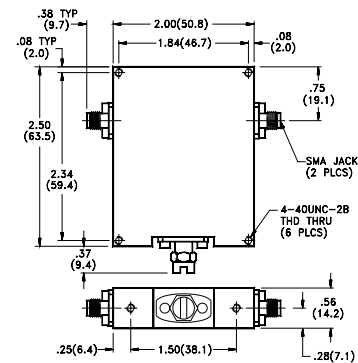
Resetability: 0.1 dB max

Finish: Connectors are Passivated Stainless Steel

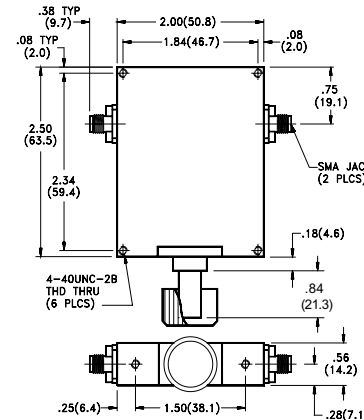
Housings are Irridited Aluminum Painted Grey per MIL-F-14072



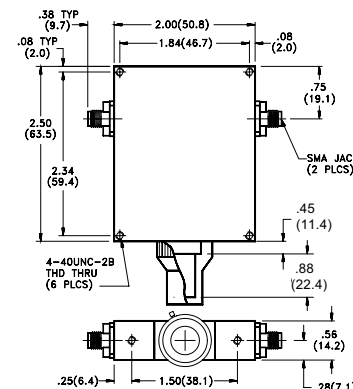
Midwest Microwave's series of Miniature Continuously Variable Attenuators were designed to meet the most stringent environmental conditions. The Flat with Frequency Types are useful for applications where a specific level of attenuation is required over a frequency band and reasonable attenuation flatness over the frequency band is necessary. The units are available in a Standard simple locking type configuration, a Panel mount type with a knob, or a Turns-counting dial type, also panel mounted, for refrence setting or if calibration is desired. SMA connector configurations are standard, however Type N or TNC connector configurations are also available (see note below).



S = Standard Locking Nut Type



P = Panel Mounting Type



T = Turns Counting Panel Mounting Type

Flat with Frequency Models			
Freq Range (GHz)	Atten Range (dB)	Flatness (\pm dB)	Model Number
1.2 - 1.4	15	1.5	CVA-FS91-15-SMA-79
2.0 - 4.0	10	1.0	CVA-FS92-10-SMA-79
	20	1.5*	CVA-FS92-20-SMA-79
4.0 - 8.0	10	0.5	CVA-FS93-10-SMA-79
	20	1.0	CVA-FS93-20-SMA-79
8.0 - 12.4	10	0.5	CVA-FS94-10-SMA-79
	20	1.0	CVA-FS94-20-SMA-79
	30	2.0	CVA-FS94-30-SMA-79
12.4 - 18.0	20	1.0	CVA-FS95-20-SMA-79
	30	2.0	CVA-FS95-30-SMA-79

*Note: Flatness is +/- 1.5 dB @ 0 - 13 dB and +/- 2.25 dB @ 13 - 20 dB

Notes:

1. To designate a Panel type option, substitute "P" for "S" in the Model No..
2. To designate a Turns-Counting Dial option, substitute "T" for "S" in the Model No..
3. To designate Type N or TNC connectors, substitute "NNN" or "TNC" for "SMA" in the Model No.

0 - 20 dB Precision Variable Attenuation

- 4.0 - 8.0 GHz Performance
- Direct Dial Reading
- Accurate Calibration
- Flat Frequency Response
- Panel Mounting Right Angle Drive Available

Specifications

Frequency: 4.0 - 8.0 GHz

Attenuation Range: 0 - 20 dB

Attenuation Accuracy: ± 1.0 dB

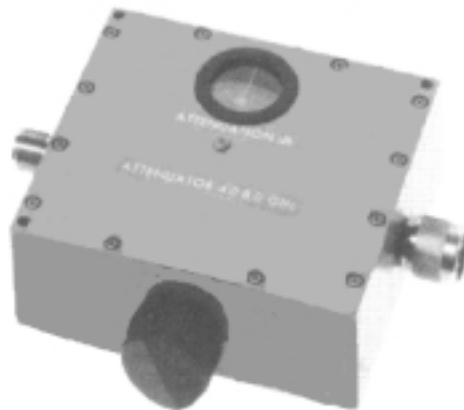
Impedance: 50 Ohms

VSWR: 1.25

Zero Position Insertion Loss: 1.0 dB max

Power: 10 Watts average, 5 kW peak

Connectors: Type N Male/Female Passivated Stainless Steel



4.0 - 8.0 GHz	Calibrated Variable Attenuator	0 - 20 dB
Bench Top Side Panel Drive		Front Panel Right Angle Drive
CVA-1511-20-NNN-79		CVA-1512-20-NNN-79

