

### Features

- Frequency Ranges from DC to 50 GHz
- Attenuation Values from 1 to 10 dB
- Negative and Positive Temperature Coefficients of Attenuation (TCA) Available
- Power Handling Up to 2 Watts
- Space and Military Qualified
- Surface Mount Packaging
- Wire Bondable Connections Available
- Impedance 50 and 75 Ohms
- RoHS Compliant Option Available

### Benefits

- Small Footprint
- Zero Distortion
- Totally Passive
- Power Handling up to 2 Watts
- Several Metallization Options Available
- Tailored Response to Variations Over Temperature
- Requires no DC power.

### Applications

- Power Amplifiers
- Military
- Mixers
- Satellite Communication
- Gain Blocks
- MMIC Amplifiers
- Directional Couplers
- Diode Detectors
- Broadcast (TV and Radio)



The Thermopad® is a totally passive, surface mountable temperature variable attenuator. It requires no bias or control voltages and does not generate signal distortion. The Thermopad can be used in place of a standard chip attenuator to combine level setting and temperature compensation in a single chip design. This will reduce component count, increase reliability, and lower system costs.

### Quick Selector Chart

Series	Frequency (GHz)	Power (Watts)	Footprint mm [inches]		Page
TVA	DC - 6	2.0	3.68 x 3.10	[0.145 x 0.122]	5
MTVA	DC - 18	0.2	1.90 x 1.52	[0.075 x 0.060]	6
WTVA	DC - 20	0.2	1.78 x 1.52	[0.070 x 0.060]	7
KTVA	16 - 36	0.1	3.05 x 1.65	[0.120 x 0.065]	8
QTVA	36 - 50	0.1	3.05 x 1.65	[0.120 x 0.065]	9
AN3	DC - 4	2.0	3.68 x 3.10	[0.145 x 0.122]	11
AN5	DC - 6	0.2	1.90 x 1.52	[0.075 x 0.060]	10
AN7	DC - 6	0.1	2.03 x 1.27	[0.080 x 0.050]	10
AN11	DC - 6	0.1	1.14 x 0.64	[0.045 x 0.025]	10
ETVA	DC - 3	2.0	4.06 x 3.68	[0.160 x 0.145]	13
CTVA (75Ω)	DC - 2	2.0	3.68 x 3.10	[0.145 x 0.122]	12
Coax TVA	DC - 6	2.0	7.92 x 19.05	[0.312 x 0.750]	14
HRTVA	DC - 6	2.0	3.68 x 3.10	[0.145 x 0.122]	15
HRMTVA	DC - 18	0.2	1.91 x 1.52	[0.075 x 0.060]	16

# Specialty Thermopads

## Coaxial Thermopad®

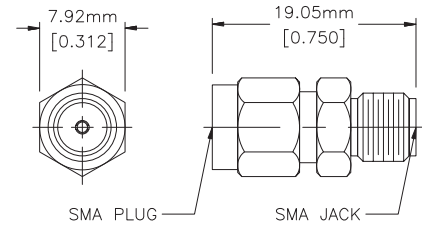


Combining EMC Technology components with Florida RF Labs connector expertise to offer the popular temperature variable attenuator in a coaxial package. The coaxial Thermopad® offers the same benefits as the standard temperature variable attenuator with the added benefit of an SMA plug to SMA jack interface.

### Specifications

	42TVA	42WTVA
Size	19.05 mm x 7.92 mm [0.750 in x 0.312 in]	22.10 mm x 7.92 mm [0.870 in x 0.312 in]
Impedance	50 Ohms	50 Ohms
Frequency Range	DC to 6 GHz	DC to 20 GHz
TCA Tolerance	±0.001 dB/dB/°C	±0.001 dB/dB/°C
VSWR (Typical)	1.35 @ 1 GHz	1.25 @ 1 GHz
Power Rating	2.0 Watts	0.2 Watts
Operating Temperature	-55°C to 150°C	-55°C to 150°C
Substrate	Alumina	Alumina
Resistive Material	Thick Film	Thick Film
Terminal Material	Plated Thick Film	Plated Thick Film
Body and Nut	Stainless Steel	Stainless Steel
Contact	Beryllium Copper	Beryllium Copper
Dielectric	Tetrafluoroethylene	Tetrafluoroethylene
Interface	SMA Male/ SMA Female	2.92mm Male/ 2.92mmFemale
Body	Passivated	Passivated

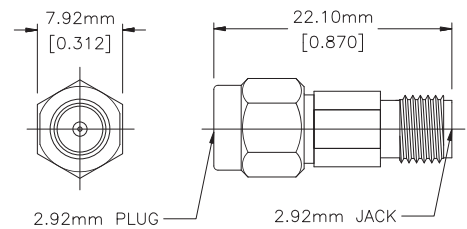
### 42TVA Series



SMA PLUG

SMA JACK

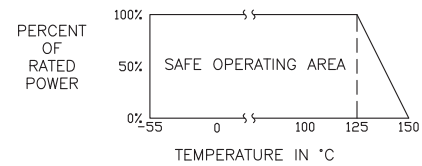
### 42WTVA Series



2.92mm PLUG

2.92mm JACK

### Power Rating and Derating



### Part Numbering Code

**4 2 T V A**      **0 3**      **0 0**      **N**      **0 5**      **F**  
 SERIES      NOMINAL ATTENUATION      EMC CODE      TCA SLOPE      TCA (dB/dB/°C)      ENVIRONMENTAL COMPLIANCE  
 42TVA      01 = 1 dB through 10 = 10 dB      N = Negative P = Positive      03 = .003 through 09 = .009      (blank) = Standard F = RoHS

**4 2 W T V A**      **0 3**      **0 0**      **N**      **0 5**      **F**  
 SERIES      NOMINAL ATTENUATION      EMC CODE      TCA SLOPE      TCA (dB/dB/°C)      ENVIRONMENTAL COMPLIANCE  
 42WTVA      02 = 2 dB through 6 = 6 dB      N = Negative      03 = .003 05 = .005 07 = .007      (blank) = Standard F = RoHS