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[Thermopad®](#)

[Standard Thermopad®](#)

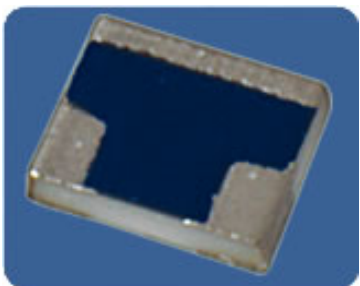
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MTVA



EMC Technology s MTVA Thermopads are microwave absorbtive attenuators which offer a smaller physical size with increased frequency range. The series operates DC to 18 GHz. The MTVA version of the Thermopad also offers wire bondable terminals for use with alternative high frequency attachment methods and space applications. This product is available with various metallization styles and plating options including RoHS compliant lead free silver over nickel plating, 60/40 low temperature solder plating or 60/40 solder fused finish for easy reflow processing.

[Standard Thermopad®](#)

■ General Specification

Size	0.060 x 0.075 (1.52mm x 1.91mm)
Impedance	50 Ohms
Frequency Range	DC to 18 GHz
Attenuation Accuracy	+/-0.5 dB
TCA Tolerance	+/-0.001
VSWR (Typical)	1.30 @ 1 GHz
Power Rating	200 mWatts
Power derating derates to	100% to 125 °C 0% @ 150 °C
Operating Temperature	-55 °C to 150 °C

■ Material Specification

■ Product Options

Quick Help:

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CTVA

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HTVA

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High Reliability Thermopad®

HRTVA

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HRMTVA

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Substrate	Alumina
Resistive material	Thick film
Terminal material	Thick film, Nickel Barrier with Solder Plate or no lead Silver Finish

Ordering Information

MTVA	03	00	N	07	W3	S
Series MTVA	Nominal Atten. 1=1dB 2=2dB 3=3dB 4=4dB 5=5dB 6=6dB 7=7dB 8=8dB	Test Code 00=Standard	TCA Slope N=Neg.	TCA dB/dB/°C 03=.003 04=.004 05=.005 06=.006 07=.007 08=.008 09=.009	Metallization Blank=Planar W3=Triple Wrap W1=Single Wrap G=Planar Gold WB1=Wire Bond	Plating Blank=60/40 (Solder Plated) S=60/40 (Solder Fused) F=Silver (Lead Free) (S or F not available on WB1 or G)

Metallization and Plating Options

Planar (Blank or No Code): means topside tin/lead metallization on the input/output & ground pads. This chip device should be mounted in a flip chip style and is pick & place compatible. Planar offers the best RF performance and lowest cost.

Single Wrap (W1): indicates tin/lead metallization is used on the input/output pads and wraps around the ground pad with full backside metallization.

Triple Wrap (W3): indicates tin/lead metallization wraps around on the input/output and ground pads. Triple wrap metallization permits inspectable solder fillets. This chip device should be mounted in a flip chip method and is well suited for hand soldering.

Planar Gold (G): means topside wire bond thick film gold is used on the input/output & ground pads. This chip device should be mounted film side up and wire or ribbon bonds used to make contact to the input/output & ground pads.

Wire Bond Gold (WB1): indicates wire bond gold metallization is used on the input/output pads and wraps around the ground pad with full backside gold metallization.

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Plating Option (Blank or No Code): 60/40 Solder Plated (60% Sn/40% Pb) low temperature tin/lead is used.

Plating Option (S): 60/40 Solder Fused (60% Sn / 40% Pb) low temperature tin/lead solder fused. No additional solder is required when using solder reflow methods.

Plating Option (F): No lead silver (Pure Ag) is used. Components meet RoHS compliance.

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TT5

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HPCA

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High Reliability

Attenuators

HR03

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HR05

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HR5

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