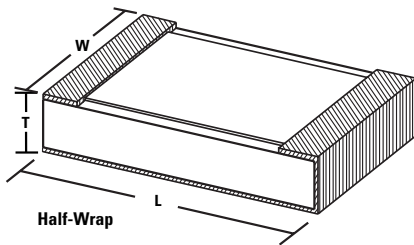
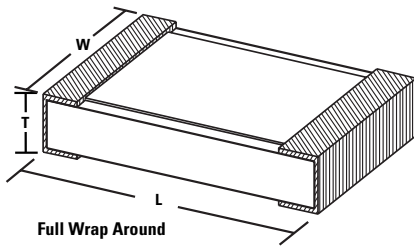


# MICROWAVE TERMINATIONS

## WAMT SERIES

WAMT Series offers special resistor patterning to enhance RF performance. Half-Wrap or Full-Wrap Terminations offer maximum flexibility in microwave applications. These resistors are constructed using our proven proprietary thin film processes.



### MECHANICAL DATA

SERIES	L	W	T	TOLERANCE
WAMT - 1	0.040" x	0.020" x	0.010"	(±0.003")
WAMT - 2	0.035" x	0.035" x	0.010"	(±0.003")
WAMT - 3	0.075" x	0.050" x	0.010"	(±0.003")
WAMT - 4	0.050" x	0.050" x	0.010"	(±0.003")
WAMT - 5	0.126" x	0.063" x	0.010"	(±0.003")
WAMT - 6	0.100" x	0.050" x	0.010"	(±0.003")
WAMT - 7	0.020" x	0.020" x	0.010"	(±0.003")
WAMT - 8	0.055" x	0.025" x	0.010"	(±0.003")
WAMT - 21	0.020" x	0.010" x	0.010"	(±0.003")

**SUBSTRATE**  
99.6% ALUMINA, ALUMINUM NITRIDE  
**RESISTOR**  
NICHROME OR TANTALUM NITRIDE  
**BOND PADS**  
AND WRAPAROUND  
TERMINATIONS  
GOLD WITH NICKEL BARRIER STANDARD.  
OPTIONAL WITH SOLDER; OR HALF-WRAP TERMINATION

### ELECTRICAL DATA

SERIES	OHMIC VALUE	POWER RATING @ 70°C
WAMT - 1	6Ω - 1KΩ	125mW
WAMT - 2	25Ω - 1KΩ	250mW
WAMT - 3	25Ω - 1KΩ	250mW
WAMT - 4	25Ω - 1KΩ	250mW
WAMT - 5	25Ω - 1KΩ	500mW
WAMT - 6	25Ω - 1KΩ	250mW
WAMT - 7	25Ω - 1KΩ	125mW
WAMT - 8	25Ω - 1KΩ	250mW
WAMT - 21	2Ω - 400Ω	50mW

**ABSOLUTE TOLERANCE**  
T.C.R.  
1%, 2%, 5%, 10%  
±25ppm/°C STANDARD (NiCr)  
±150ppm/°C STANDARD (TaN); TO ±50ppm/°C AVAILABLE  
CONSULT SALES FOR OTHER VALUES

### SERIES DATA

<b>CURRENT NOISE</b>	101Ω TO 250KΩ: -40dB; ≤ 100Ω, ≥ 250KΩ: -30dB
<b>INSULATION RESISTANCE</b>	10 <sup>12</sup> Ω MIN.
<b>OPERATING VOLTAGE</b>	100 V MAX.
<b>SHORT TERM OVERLOAD</b>	5X RATED POWER, 25°C, 5 SEC., ±0.25% MAX. ΔR/R: ±0.1% MSI TYPICAL
<b>HIGH TEMP EXPOSURE</b>	150°C, 100 HRS., ±0.25% MAX. ΔR/R: ±0.03% MSI TYPICAL
<b>THERMAL SHOCK</b>	MIL-STD 202, METHOD 107F, ±0.25% MAX. ΔR/R: ±0.1% MSI TYPICAL
<b>MOISTURE RESISTANCE</b>	MIL-STD 202, METHOD 106, ±0.5% MAX. ΔR/R: ±0.1% MSI TYPICAL
<b>STABILITY</b>	1000 HRS., 70°C, 100% POWER, ±0.5% MAX. ΔR/R: ±0.1% MSI TYPICAL
<b>OPERATING TEMP RANGE</b>	-55°C TO +150°C
<b>FREQUENCY</b>	DC THROUGH 20 GHz
<b>STRAY DISTRIBUTED CAPACITANCE</b>	ALUMINA 0.06pF

### PART NUMBER DESIGNATION

WAMTX	X	X	XXXXX	X	X
SERIES	SUBSTRATE	RESISTIVE FILM	OHMIC VALUE	TOLERANCE	OPTION
1, 2	A = Alumina	N = Nichrome	5-Digit Number:	F = 1%	A = ±50ppm/°C
3, 4	N = Aluminum Nitride	T = Tantalum Nitride	1st 4 Digits Are Significant With "R" As Decimal Point When Required.	G = 2%	F = ±100ppm/°C
5, 6			5th Digit Represents Number of Zeros.	J = 5%	HWU = Half-Wrap Untinned
7, 8				K = 10%	T = With SN62 Solder **
21					T3 = Leadfree Solder
					TR = Tape and Reel ***
					U = Untinned*
					HWT = Half-Wrap Tinned.
					HW3 = Half-Wrap Leadfree Tinned

Consult Sales for power capabilities on Aluminum Nitride.

\* For Conductive Epoxy Mount.

\*\* For Solder Mount.

\*\*\* Consult Sales for Availability.

**EXAMPLE:** WAMT1 AT-50R00F-T = 0.040" x 0.020" x 0.010", Alumina Substrate, 50Ω, ±1% Tol., ±150ppm/°C, w/ Solder. Full Wrap Around. Solder option applies to all Conductor Surfaces



**MINI-SYSTEMS, INC.**

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