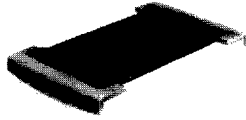
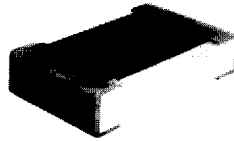


## Chip Resistors



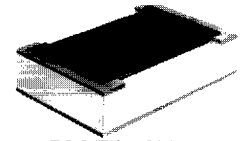
RK - Quarter Wrap



RP-Wrap Around

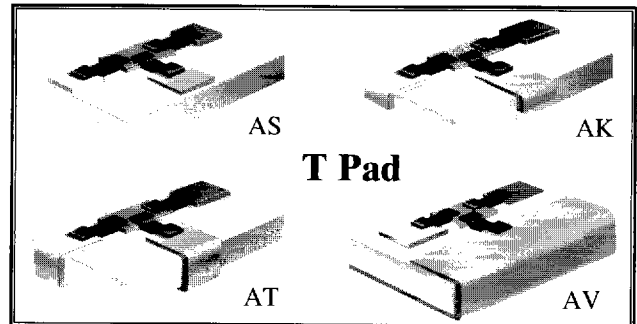
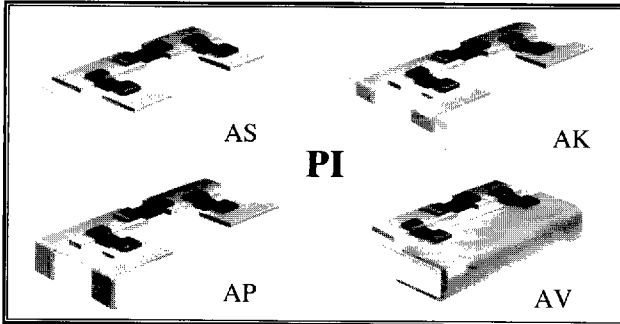


RS-Flip Chip

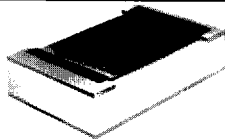


RM-Flip Chip  
With Backpad

## Microwave Attenuators



## Microwave Terminations



TV-Termination



TW-Cube  
Termination

**R P 0805 C B - 1001 J N - 91**

- Device Type**
- A - Attenuator
  - J - Jumper
  - N - Network
  - Q - QPL Resistor
  - R - Resistor
  - T - Termination
  - X - Special

- Conductor Configuration**
- D - Double Sided
  - J - Full Wrap-3 Side No Backpad
  - K - 1/4 Wrap
  - L - Assembly
  - M - Back Metallization
  - P - Wrap Around
  - S - Flip Chip
  - T - 3 Sided Wrap
  - V - Half Wrap
  - W - Cube
  - X - Special
  - Z - 3 Sided 1/4 Wrap

**Size**  
0805 = .080" x .050"

- Termination Material**
- A - Platinum Gold
  - B - Palladium Silver
  - C - Silver
  - D - Platinum Silver
  - E - Gold I/O with Palladium Silver Ground
  - F - Gold I/O with Platinum Gold Ground
  - G - Gold
  - H - Gold over Platinum Gold I/O Pads with Platinum Gold Ground
  - J - Gold over Platinum Gold
  - K - Platinum Palladium Silver
  - X - Special

- Termination Finish**
- A - No Finish
  - B - Tin/Lead over Nickel
  - C - Tin/Lead over Nickel on I/O, Nickel only on Ground
  - G - Gold over Nickel
  - I - Lead Indium Solder Dip
  - N - Nickel
  - P - Tin/Lead Plate 60/40
  - S - Tin/Lead
  - X - Special

**Value in Ohms**

1.1	1R10
1.0	1R00
10	10R0
100	1000
1,000	1001
10,000	1002
1,000,000 (1 Meg.)	1004
150,000,000,000	1509

**Value in Decibels**

1	.0100
2.5	.0250
12	.1200
18.5	.1850

- Substrate\***
- 90 - .010" Alumina
  - 91 - .015" Alumina
  - 92 - .020" Alumina
  - 93 - .025" Alumina
  - 94 - .040" Alumina
  - 95 - .010" BeO
  - 96 - .015" BeO
  - 97 - .020" BeO
  - 98 - .025" BeO
  - 99 - .040" BeO
  - 9A - .030" Alumina
  - 9B - .030" BeO
  - 9C - .035" Alumina
  - 9D - .035" BeO
  - 9E - .060" Alumina
  - 9F - .060" BeO
  - 9Q - .015" Aluminum Nitride
  - 9T - .040" Aluminum Nitride
  - 9X - Special
- \* All Resistive Elements Passivated*

- Inspection**
- C - Customer Print
  - N - Normal
  - T - Special

- Tolerance**
- F - 1%
  - G - 2%
  - J - 5%
  - K - 10%
  - L - 20%
  - X - Special

## Available Sizes for Thick Film Chips

Chip Size*	Microwave Attenuators and Terminations								Chip Resistors				
	AK	AM	AP	AS	AT	AV	AZ	TV	TW	RK	RP	RS	RM
0101									.			.	.
0201												.	.
0202												.	.
0302											.	.	.
0303									.		.	.	.
0402											.	.	.
0405	.	.	.	.	.	.	.				.	.	.
0502											.	.	.
0503											.	.	.
0504											.	.	.
0505											.	.	.
0604				.	.	.					.	.	.
0605											.	.	.
0610											.	.	.
0702											.	.	.
0706			.	.	.	.	.				.	.	.
0715											.	.	.
0802											.	.	.
0805											.	.	.
0904	.	.	.	.	.	.	.				.	.	.
1002											.	.	.
1004				.		.					.	.	.
1005		.	.	.		.					.	.	.
1007	.	.	.	.	.	.					.	.	.
1008											.	.	.
1010									.		.	.	.
1202											.	.	.
1206											.	.	.
1211											.	.	.
1216			.	.							.	.	.
1505											.	.	.
1612	.	.	.	.	.	.					.	.	.
1910											.	.	.
2010											.	.	.
2207											.	.	.
2335											.	.	.
2510											.	.	.
2512											.	.	.
2525						.					.	.	.
3522			.	.							.	.	.
3725											.	.	.
3737											.	.	.

\*0502 = .050" x .025"    0610 = .060" x .100"    1206 = .120" x .060"    2207 = .220" x .070"    \*0502 = .050" x .025"

### Thick Film Chip Values and Material Selection

Resistor values range from .1 ohm to 150 gigohm. Attenuator values range from .25dB to 32dB. All chips are available in standard 96% Alumina or in BeO to handle your hi power requirements. Detailed drawings are available for each chip style. Please call the factory for any of your special product needs.

### Engineering Kits

Engineering kits are available for prototyping or pilot runs. Standard kits contain chip resistors in tolerances of 1, 2, 5 or 10% tolerance - with values from 10 ohms to 27 megohms. Custom kits are also available. *See Back Cover.*