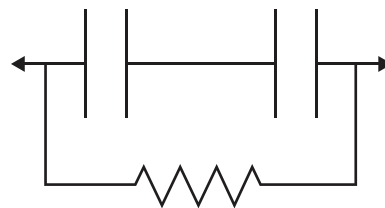
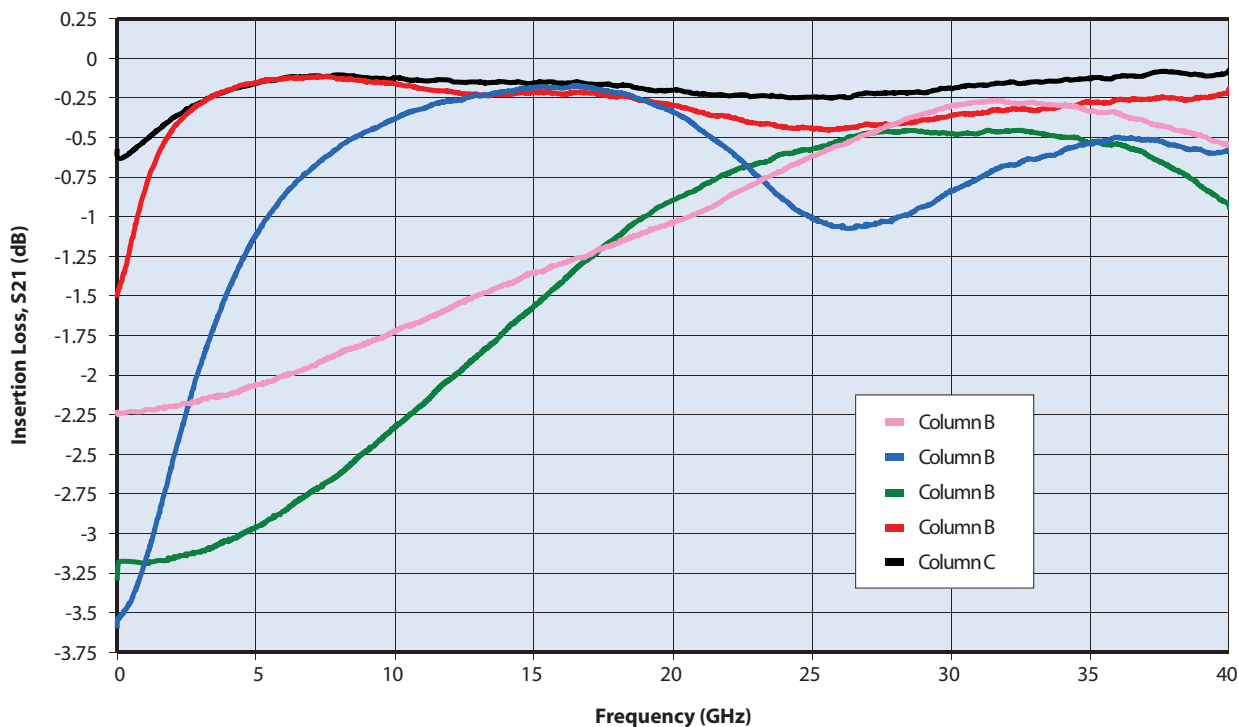


**Functional Applications:**

- Equalizer is utilized as a compensation circuit to correct for a loss slope created by other elements within a circuit [such as in amplifier stages].
- Used with SONET modules in conjunction with DC blocking capacitors adjacent to amplifiers.

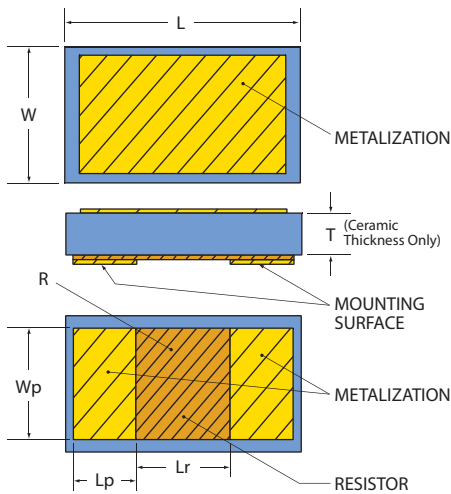
**Benefits:**

- Superior microwave performance
- Excellent repeatability
- Ease of assembly
- Custom designs possible

**Equivalent Schematic Representation****Equalizer Typical Performance**

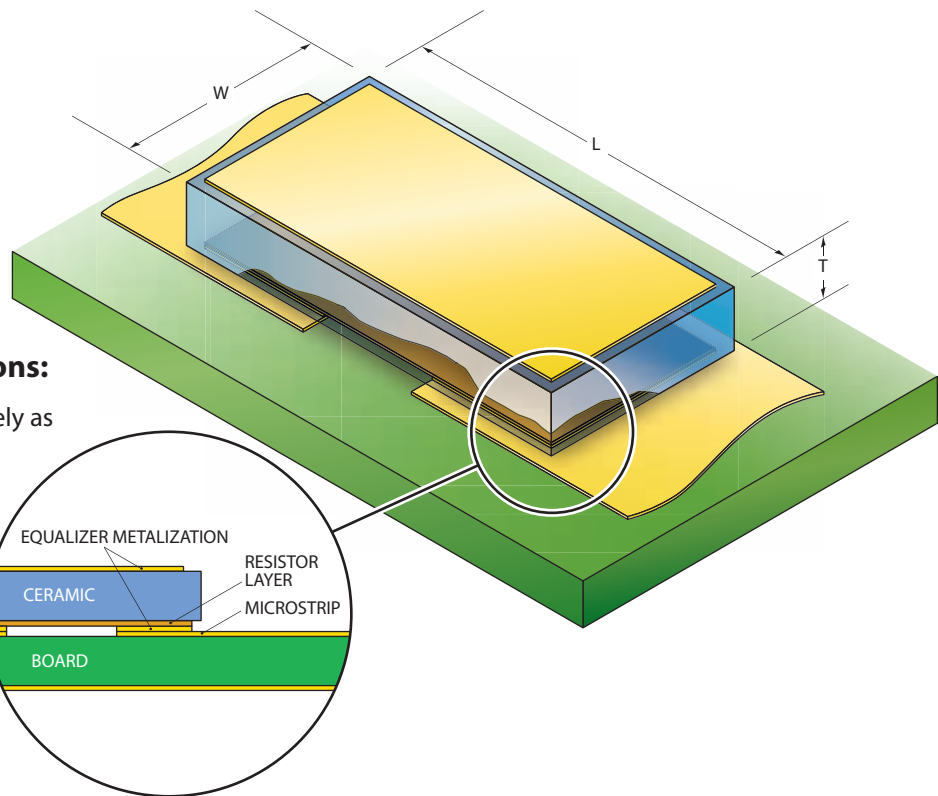
## Gain Equalizers

### Physical Characteristics



Part Number	L	W	T	Lp	Wp	Lr	Attachment Material
AEQ2050	$30 \pm 2$	$18 \pm 2$	$5 \pm 1$	$9 \pm 1$	$14 \pm 1$	$8 \pm 1$	Epoxy
AEQ2199	$28 \pm 2$	$16 \pm 2$	$7 \pm 1$	$7 \pm 1$	$14 \pm 1$	$12 \pm 1$	Epoxy
AEQ2234	$32 \pm 2$	$16 \pm 2$	$5 \pm 1$	$8 \pm 1$	$12 \pm 1$	$12 \pm 1$	Epoxy
AEQ3042	$40 \pm 2$	$20 \pm 2$	$6 \pm 1$	$17.5 \pm 1$	$18 \pm 1$	$3 \pm 1$	Solder
AEQ3055	$40 \pm 2$	$20 \pm 2$	$6 \pm 1$	$15.4 \pm 1$	$184 \pm 1$	$7.2 \pm 1$	Solder

Dimensions in mils



### Die Attachment Recommendations:

- 1) Equalizer width should be approximately as wide as 50 ohm line trace on PCB.
- 2) The gap in the microstrip line should be nominally equal to dimension Lr.
- 3) Vacuum pick-up tool recommended for component handling. If pressure is to be applied during component placement, it should be done uniformly across the part.
- 4) Thin, unmounted circuit boards are prone to warpage during reflow. This can cause solder attach defects and cracking of components during handling or subsequent housing installation.

Mechanical outline drawings for equalizers listed above are available. Please contact DLI Applications Engineering for details.



#### Dielectric Laboratories, Inc.

2777 Route 20 East, Cazenovia, NY 13035 USA

Phone: (315) 655-8710

Fax: (315) 655-0445

Email: DLISales@knowles.com



www.knowlescapacitors.com



Qual Sys AS 9100 and ISO 9001:2000 certified  
Environ Sys ISO 14001:2004 certified