

TO-8 Thin-Film Linearizer

Rev. V2

Features

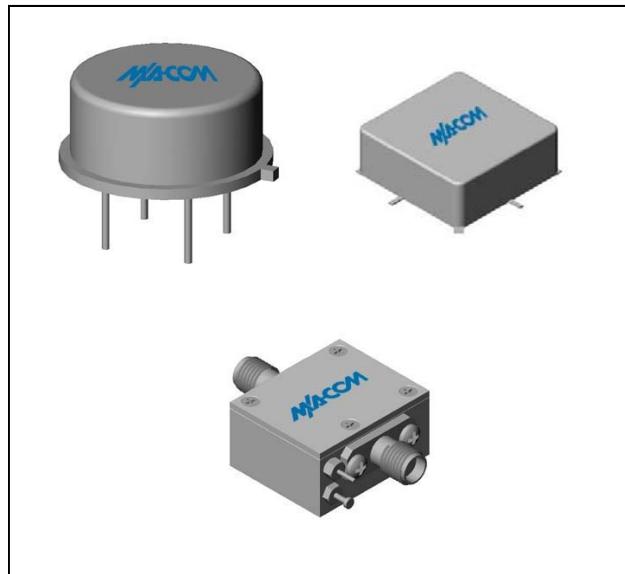
- AVAILABLE IN SURFACE MOUNT
- WIDE TEMPERATURE OPERATION
- YIELDS LINEAR ATTENUATION (dB) FOR LINEAR CONTROL VOLTAGE

Ordering Information

Part Number	Package
LG1	TO-8
SMLG1	Surface Mount
CLG1 **	SMA Connectorized

** The connectorized version is not RoHS compliant.

Product Image



Linearity Specifications: Frequency: 10 - 1000 MHz, attenuation range: 3 to 20 dB

Temperature	Units	Typical	Guaranteed Max.
25°C	dB	< ±1.0	±1.5
-54°C to +85°C	dB	< ±1.5	±2.0

Typical Current Drain

	Units	Control Voltage= -10 V (Min. Attenuation)	Control Voltage= 0 V (Max. Attenuation)
V- V+ V _{CON}	mA	5 24 15	5 11 2.5
Combination of LG1 Plus G1 V- V+ V _{CON}	mA	5 31 15	5 21 2.5

Weight approximately 2.0 grams (0.07 oz.)

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ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

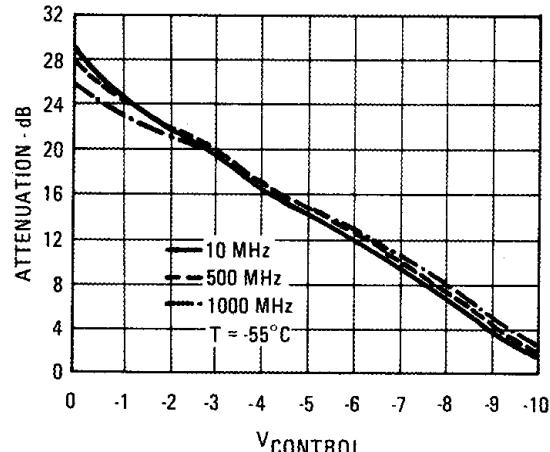
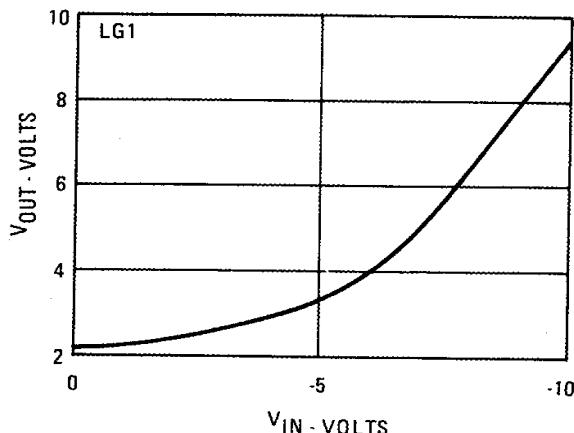
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Visit www.macomtech.com for additional data sheets and product information.

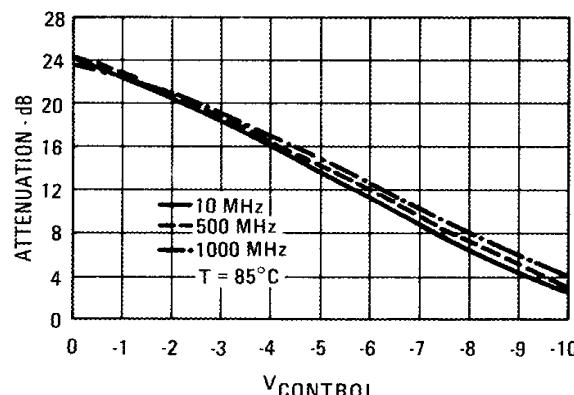
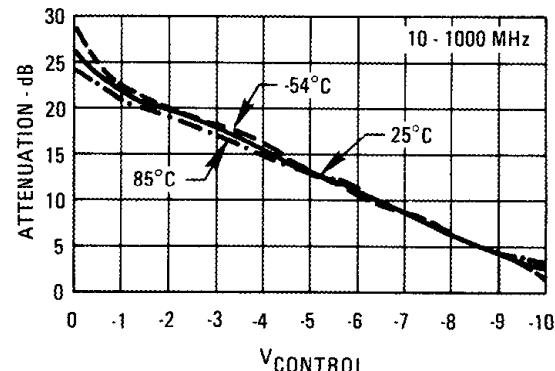
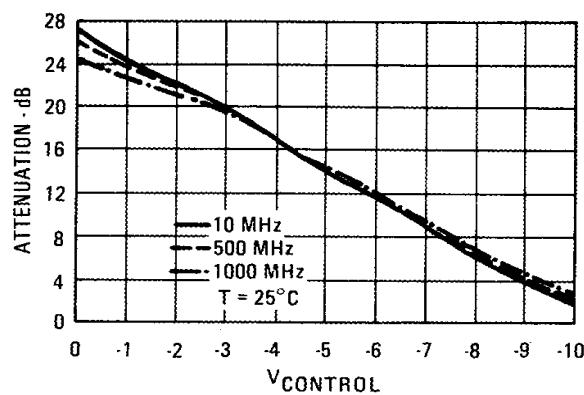
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Typical Performance Curves

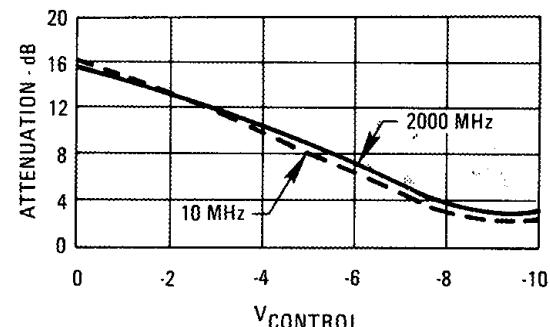
Output Voltage vs. Input Voltage



Attenuation of LG1 and G1 in Cascade vs. Control Voltage



Attenuation of LG1 and G2 in Cascade vs. Control Voltage

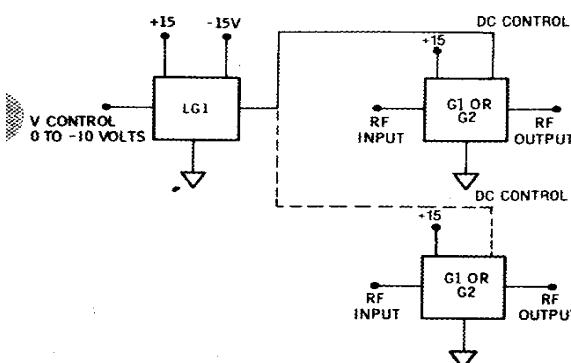


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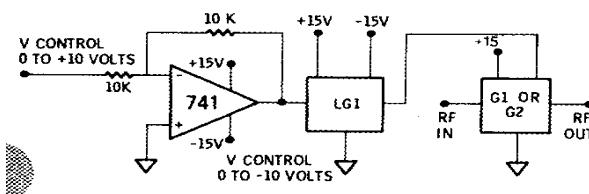
Absolute Maximum Ratings

Parameter	Absolute Maximum
Storage Temperature	-62°C to +125°C
Maximum Case Temperature	125°C
Maximum DC Voltage	+17 Volts
"S" Series Burn-in Temperature (Case)	125°C

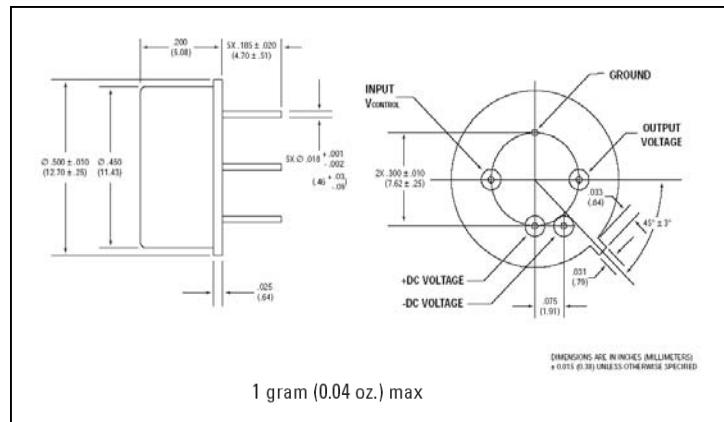


The LG1 can drive two G1's or G2's as shown above. The LG1 has a response time of 30 μ s over its entire band of control voltage. The response time of the G1 or G2 is typically 60-100 μ s.

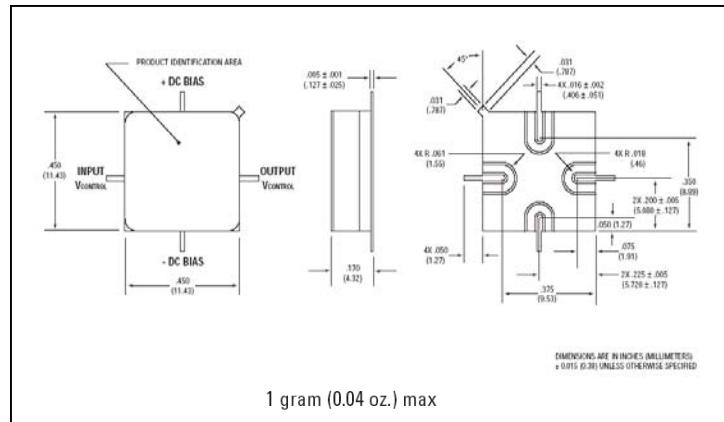
If a positive control voltage is desired the following circuit may be used. The op-amp buffer can also generate a very low source resistance in the order of thousands of an ohm.



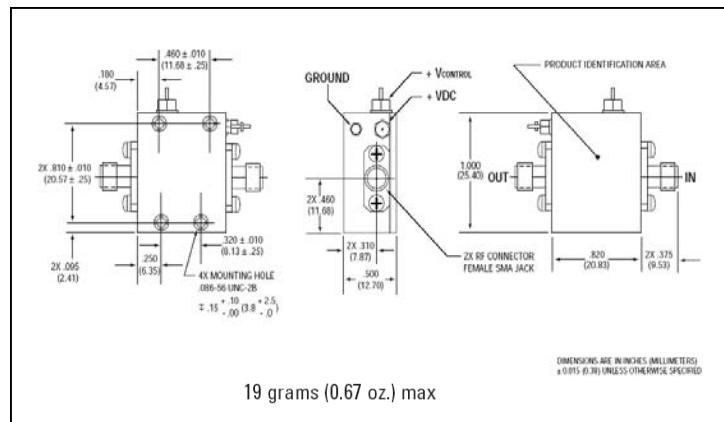
Outline Drawing: TO-8



Outline Drawing: Surface Mount



Outline Drawing: SMA Connectorized



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