

TriQuint

PRODUCT
INFORMATION

MICRO-S

1 - 8 GHz VARIABLE ATTENUATOR

TQ9161

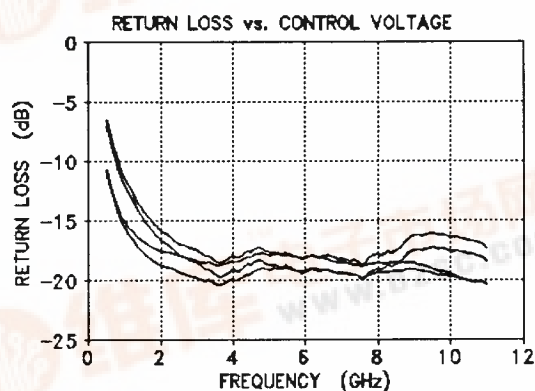
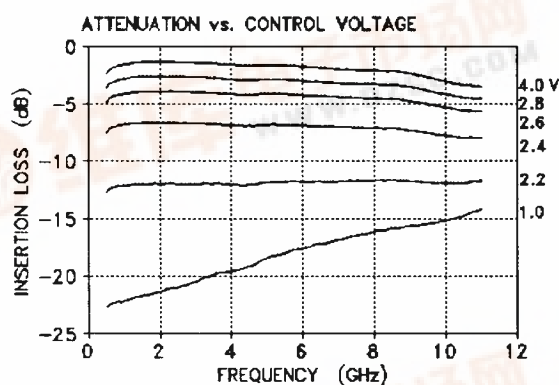
FEATURES

Broad Bandwidth	1 - 8 GHz
Min Insertion Loss	< 2 dB
Attenuation Range	> 10 dB
Input/Output VSWR	< 2 : 1
Response Time (10%-90%)	< 50 ns
Single Power Supply	

FUNCTIONAL DESCRIPTION

The TQ9161 is a voltage-controlled absorptive attenuator designed for gain compensation/control and leveling loop applications. Internal circuitry maintains good input/output return loss as attenuation is varied. On-chip DC blocking capacitors simplify system integration. The TQ9161 is available mounted in a hermetic surface mount package or in die form. Die size is 43 x 54 mils.

TYPICAL TQ9161 PACKAGED PERFORMANCE



APPLICATION NOTES

AN-002 Recommendations for Handling and Packaging TriQuint Die

AN-004 Mounting TriQuint's Micro-S Package to a Circuit Board

AN-006 Lowering the Frequency of Operation of the TQ9161 Attenuator

14-0540-B

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ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings

	MIN	MAX	UNIT
DC Power Supply		16	V
Operating Temp	-55	+85	°C
Storage Temp	-55	+150	°C
Power Dissipation		1.5	W

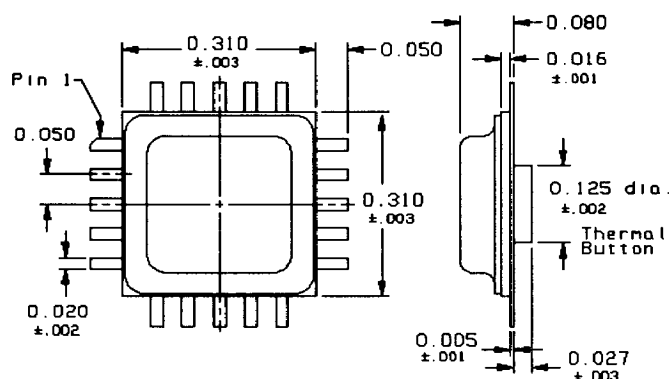
DC Characteristics at 20°C (T_C)

	MIN	TYP	MAX	UNIT
DC Power Supply	+10	+12	+15	V
DC Supply Current		25	40	mA
Power Dissipation		0.3	0.6	W
Control Voltage Range		+1 to 4		V

RF Characteristics at 20°C (T_C)

	MIN	TYP	MAX	UNIT
Frequency of Operation	1		8	GHz
Insertion Loss		2.0	2.5	dB
Input/Output VSWR		1.7:1	2:1	
Attenuation Range @ 1GHz	12	15		dB
@ 8GHz	9	12		dB
Response Time (10%-90%)		<50		ns
Max. RF Power		> +20		dBm

PACKAGE OUTLINE



Pin Function

2	-
4	RF IN
7	Optional Source Bypass
9	-
12	RF OUT
14	-
17	-
19	V _{DD}

Pins 1, 3, 5, 6, 8,
10, 11, 13, 15, 16,
18, 20 are Ground.

For further information, please contact:

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