Voltage Variable Attenuator

50Ω 1600 to 2200 MHz

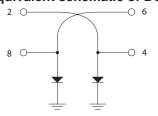
Maximum Ratings

Operating Temperature	-45°C to 85°C			
Storage Temperature	-55°C to 100°C			
Absolute Max. Control Current	10mA			
Absolute Max. RF Input Level	15dBm			

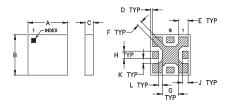
Pin Connections

RF IN	2
V CONTROL 1	8
V CONTROL 2	4
RF OUT	6
GROUND	1,3,5,7

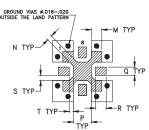
Equivalent schematic of DUT



Outline Drawing



PCB Land Pattern



Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

A .150 3.81	B .150 3.81	.050	.008	.036	F .018 0.46	.062	.028	J .022 0.56	
K	L	M	N	Р	Q	R	S	Т	wt
.017	.014	.036	.018	.062	.028	.037	.017	.014	grams
0.43	0.36	0.01	0.46	4 57	0.71	0.04	0.42	0.36	0.06

Features

- frequency range, 1600-2200 MHz
- IP3, 42 dBm typ.
- minimum current at min. attenuation
- low insertion loss
- · aqueous washable
- protected by US Patent 7,030,713

Applications

- variable gain amplifier
- feed forward amps
- ALC circuits

CASE STYLE: GF995

+RoHS Compliant

Generic photo used for illustration purposes only

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

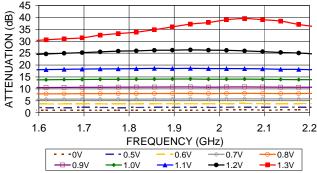
Electrical Specifications

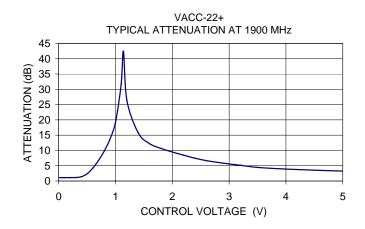
FREQ. (MHz)		INSERTION LOSS (dB)	ATTENUATION (dB)	IP3* (dBm)	RETURN LOSS (dB)		CONTROL VOLTAGE**	
		at 0V control voltage			Input	Output	(V)	
Min.	Max.	Тур. Мах.	Typ. Min.	Typ. Min.	Тур.	Тур.		
1600	2220	1.2 1.5	25 23	42 38	20	20	0-5	

Input IP3 tested with two tones separated by 1 MHz at 7 dBm each and 0V control voltage.

ATTENUATION Vs. FREQUENCY Vs. CONTROL VOLTAGE

VACC-22+





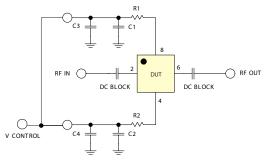
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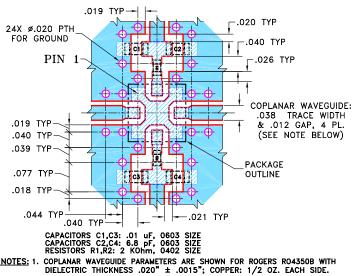
^{*} Using recommended control port biasing

Recommended control port biasing configuration



- R1, R2: 2K OHM CHIP RESISTOR (0402, AS CLOSE AS POSSIBLE TO THE DEVICE) C1, C2: 0.01 UF CHIP CAPACITOR (0603)
- C3, C4: 6.8 PF CHIP CAPACITOR (0603)

Demo Board MCL P/N: TB-250 Suggested PCB Layout (PL-148)

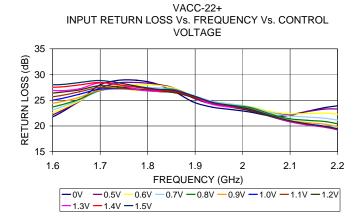


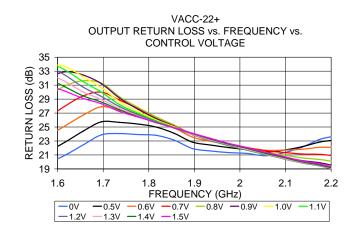
NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.

2. IF YOUR PCB DESIGN RULES ALLOW, GROUND VIAS SHOULD BE PLACED UNDER THE LAND PATTERN FOR BETTER RF PERFORMANCE.

3. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

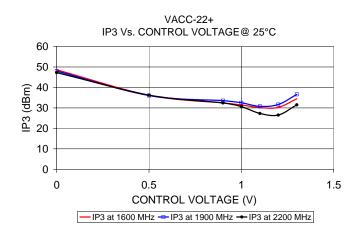


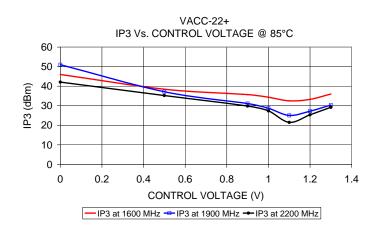


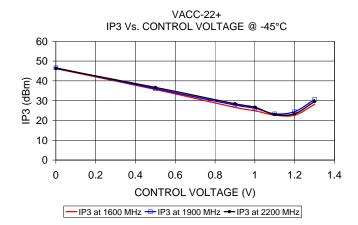
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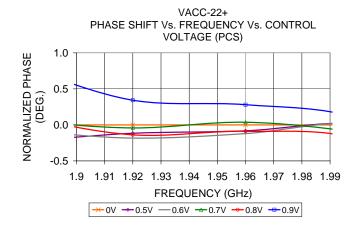
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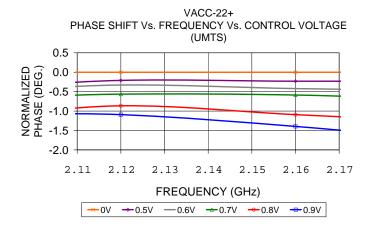
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