

Surface Mount Voltage Variable Attenuator

EVA-23-75+

75Ω 5 to 2000 MHz

Maximum Ratings

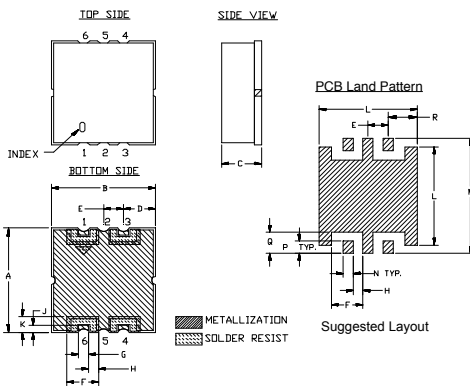
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage(V+)	6V
Absolute Max. Control Voltage(Vctrl)	10V
Absolute Max. RF Input Level	+22dBm

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

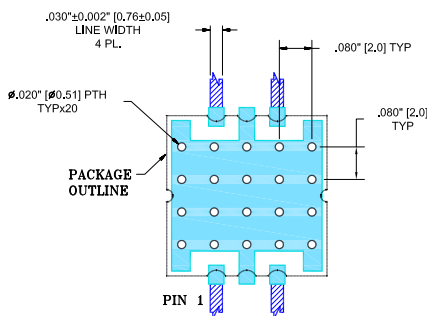
Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.394	.394	.150	.122	.075	.120	.038	.037	
10.01	10.01	3.81	3.10	1.90	3.05	0.97	0.94	
J	K	L	M	N	P	Q	R	wt.
.026	.061	.370	.434	.038	.046	.081	.110	grams
0.66	1.55	9.40	11.02	0.97	1.17	2.06	2.79	0.7

Demo Board MCL P/N: TB-381 Suggested PCB Layout (PL-238)



- NOTE:
- TRACE WIDTH IS SHOWN FOR R04350 WITH DIELECTRIC THICKNESS. .030"±.002". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
 - 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 SOLDERMASK

Features

- Frequency range, 5-2000 MHz
- High IP3, 50 dBm typ.
- Maximum attenuation at minimum current
- No external bias and RF matching network required
- Small size, shielded case
- Aqueous washable



CASE STYLE: HE1135

Applications

- CATV
- Variable gain amplifiers
- Feed forward amplifiers
- ALC circuits

+RoHS Compliant

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

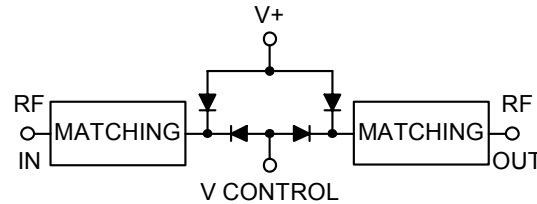
Electrical Specifications (T_{AMB} = 25°C)

FREQ. (MHz)	MIN. INSERTION LOSS, dB (+8V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage Current		IP3 ¹ (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage Current	
	Min.	Max.	Typ.	Max.		Min.	Max.			Typ.	Typ.
5 - 1000	4.5	5.5	40	25	+22	0 - 8	15	48	19	+3	4
1000 - 2000	5.0	6.0	27	18	+22	0 - 8	15	52	14	+3	4

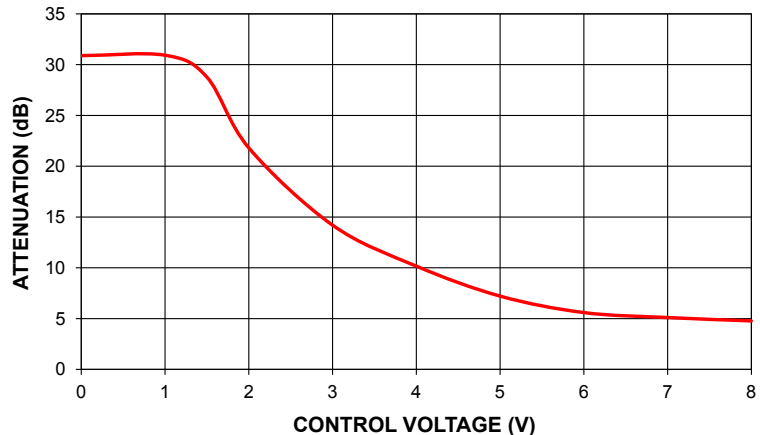
Notes:

- IP3 may degrade below 100 MHz
- Rise/Fall time: 15μSec Typ. Switching Time, turn on/off: 20μSec. Typ.

Equivalent Schematic



EVA-23-75+ TYPICAL ATTENUATION AT 1000 MHz



Notes

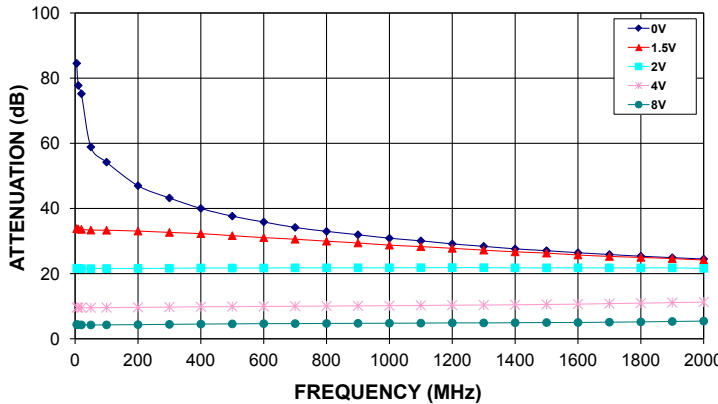
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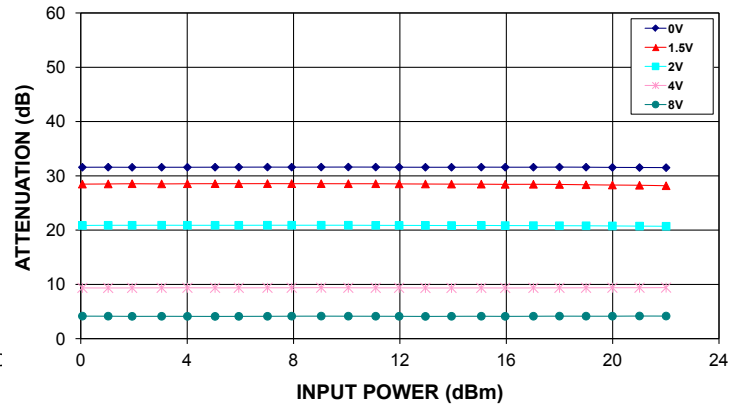
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REV. A
M158220
EDR-8397U
EVA-23-75+
URJ/RAV
160627
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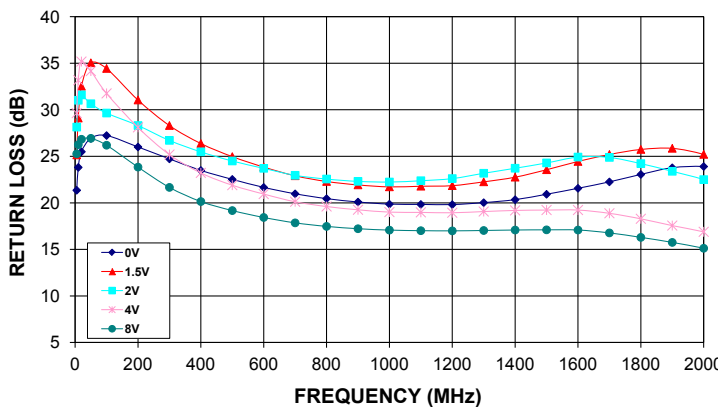
EVA-23-75+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



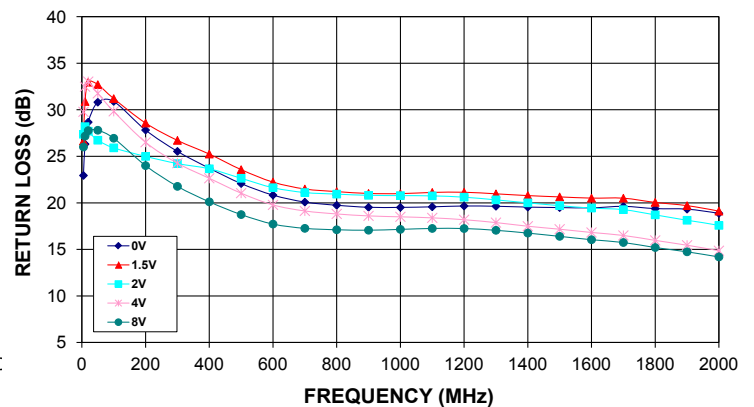
EVA-23-75+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 1000MHz



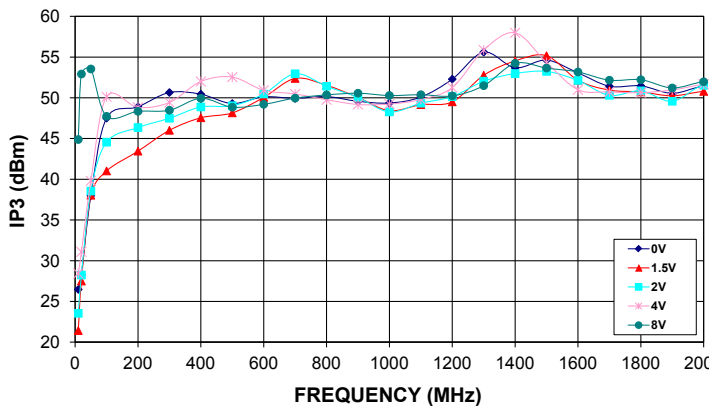
EVA-23-75+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



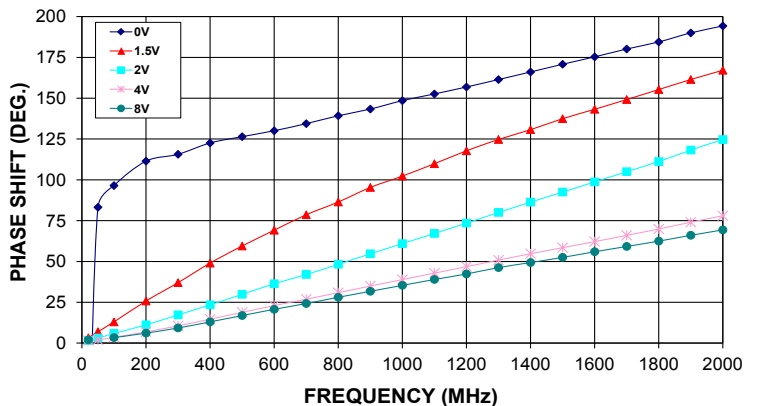
EVA-23-75+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



EVA-23-75+
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES



EVA-23-75+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES



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