

Surface Mount Voltage Variable Attenuator

EVA-3000+ EVA-3000

50Ω 50 to 3000 MHz

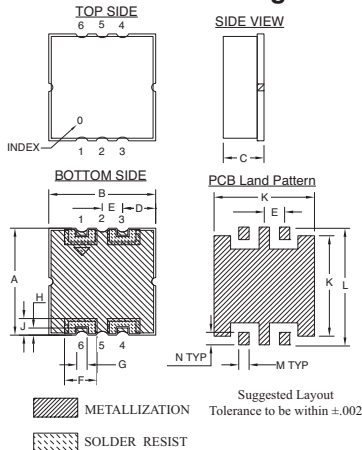
Maximum Ratings

Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
Absolute Max. Supply Voltage(V+)	7V
Absolute Max. Control Voltage(Vctrl)	9V
Absolute Max. RF Input Level	+22 dBm

Pin Connections

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

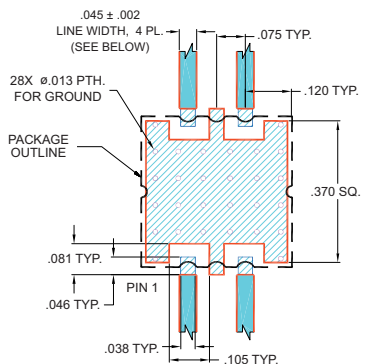
Outline Drawing



Outline Dimensions (inch/mm)

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

Demo Board MCL P/N: TB-335 Suggested PCB Layout (PL-187)



- NOTES:
- TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025" ± .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 SOLDER MASK

Features

- Frequency range, 50-3000 MHz
- IP3, 45 dBm typ.
- Maximum attenuation at minimum current
- No external bias and RF matching network required
- Small size, shielded case
- Low cost, \$4.99 ea. (qty.1K)
- Aqueous washable

Applications

- Variable gain amplifier
- Feed forward amplifiers
- ALC circuits



CASE STYLE: HE1135
PRICE: \$9.95 ea. QTY (10-49)

+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

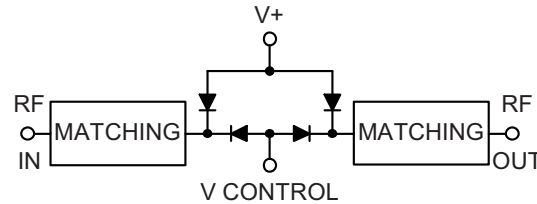
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

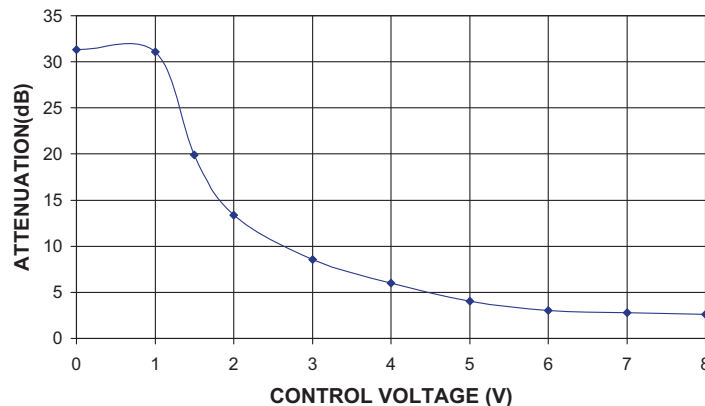
FREQ. (MHz)	MIN. INSERTION LOSS, dB (+8V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage Current (V) (mA)		IP3 (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage Current (V) (mA)	
	Min.	Max.	Typ.	Max.		Max.	Max.			Typ.	Typ.
50 - 1000	2.5	4.0	43	27	+22	0 - 8	40	41	21	+5	5
1000 - 2000	3.0	4.5	29	21	+22	0 - 8	40	45	22	+5	5
2000 - 3000	3.5	5.5	24	17	+22	0 - 8	40	44	18	+5	5

Notes:
Rise/Fall time: 15µSec/36µSec Typ.
Switching Time, turn on/off: 40µSec. Typ.

Equivalent Schematic



EVA-3000 TYPICAL ATTENUATION AT 1500MHz



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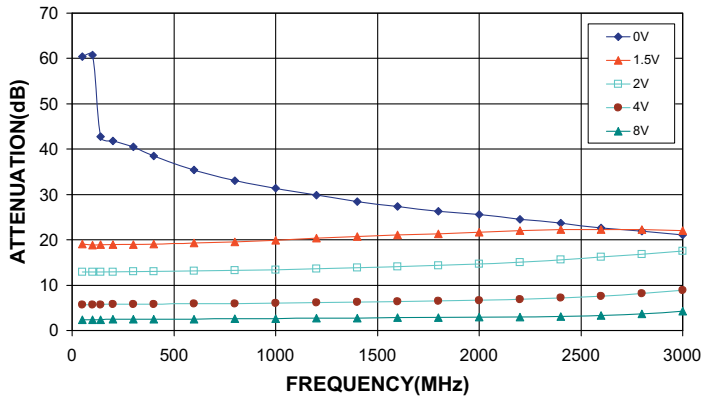


The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

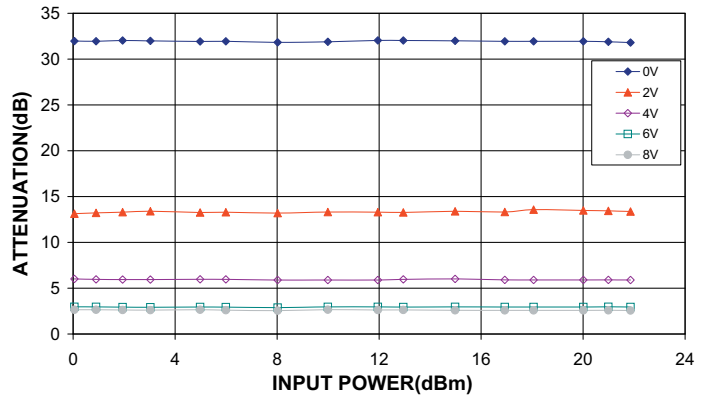
IF/RF MICROWAVE COMPONENTS

REV. B
M98898
EVA-3000
EDR-7165/2
RAV
090219
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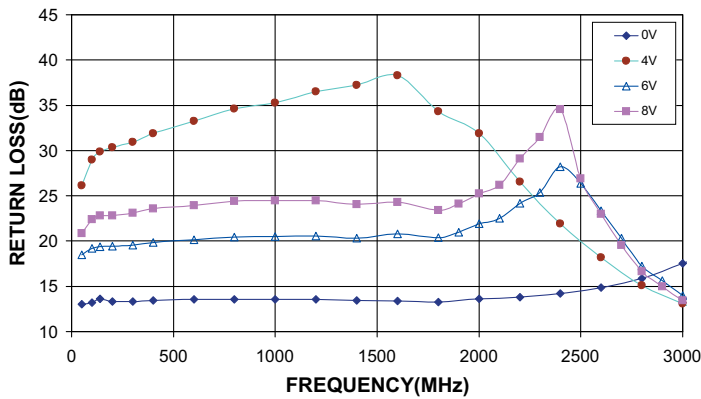
**EVA-3000
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES**



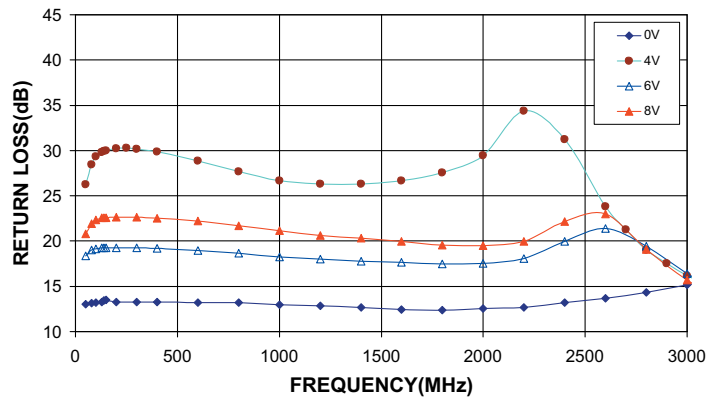
**EVA-3000
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 900MHz**



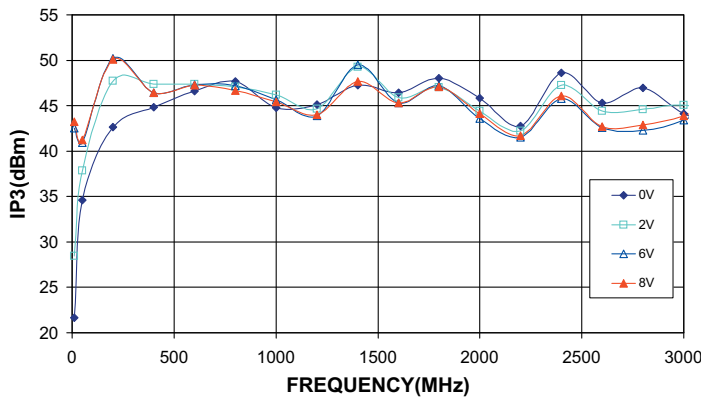
**EVA-3000
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES**



**EVA-3000
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES**



**EVA-3000
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES**



**EVA-3000
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES**

