High IP3

Voltage Variable Attenuator

RVA-2000+

50Ω 150 to 2000 MHz

Maximum Ratings

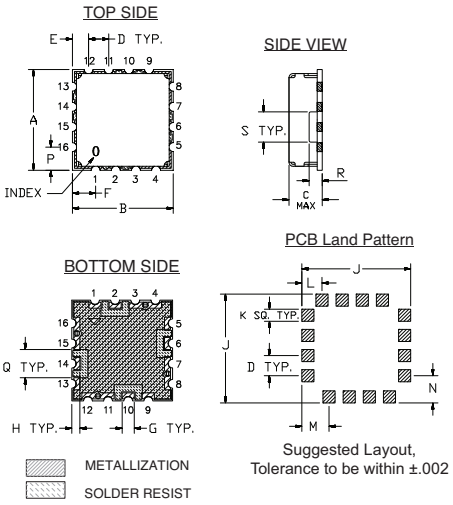
Operating Temperature	-55°C to 85°C
Storage Temperature	-55°C to 85°C
Absolute Max. Supply Voltage(V+)	12V
Absolute Max. Control Voltage(Vctrl)	20V
Absolute Max. RF Input Level	+30 dBm

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

Pin Connections

RF IN	2
RF OUT	10
V CONTROL	6
V+	14
GROUND	1,3,4,5,7,8,9,11,12,13,15,16

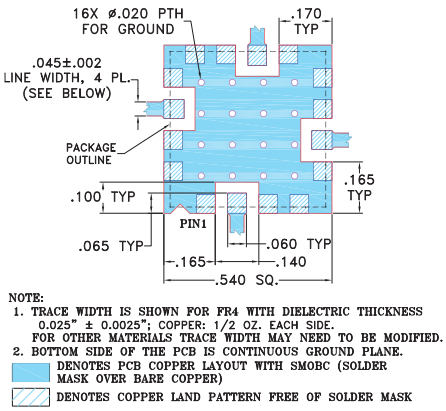
Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J
.500	.500	.195	.100	.080	.115	.060	.040	.540
12.70	12.70	4.95	2.54	2.03	2.92	1.52	1.02	13.72
K	L	M	N	P	Q	R	S	wt.
.060	.100	.135	.135	.115	.140	.070	.150	grams
1.52	2.54	3.43	3.43	2.92	3.56	1.78	3.81	1.0

Demo Board MCL P/N: TB-163
Suggested PCB Layout (PL-040)



NOTE:
1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS 0.025" ± 0.0025"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. 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, 150-2000 MHz
- High RF Input level, +31dBm Max.
- High IP3, +55 dBm typ.
- Fast Rise/Fall Time, 5μSec/4μSec Typ.
- Good VSWR at IN/OUT ports over attenuation range
- Minimal phase deviation over attenuation range
- No external bias and RF matching network required
- Shielded case
- Aqueous washable

Applications

- Power level control
- Feed forward amplifiers

CASE STYLE: DV874
PRICE: $ 11.95 ea. QTY (10-49)

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

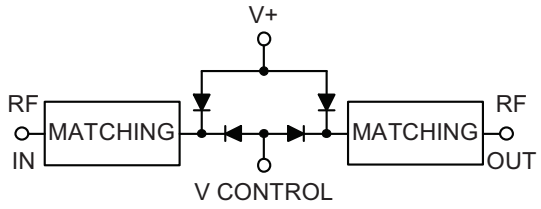
Electrical Specifications (T_{AMB}= 25°C)

FREQ. (MHz)		MIN. INSERTION LOSS, dB (+17V)		MAX. ATTENUATION dB (0V)		INPUT POWER (dBm)	CONTROL Voltage (V)	CONTROL Current (mA)	IP3 (dBm)	RETURN LOSS (dB)	POWER SUPPLY Voltage (V)	POWER SUPPLY Current (mA)
Min.	Max.	Typ.	Max.	Typ.	Min.	Max.		Max.	Typ.	Typ.		Max.
150 - 500		2.8	3.5	46	34	+30	0 - 17	30	53	23	+5	10
500 - 1500		3.0	4.5	35	23	+30	0 - 17	30	56	22	+5	10
1500 - 2000		3.5	5.0	29	20	+30	0 - 17	30	57	21	+5	10

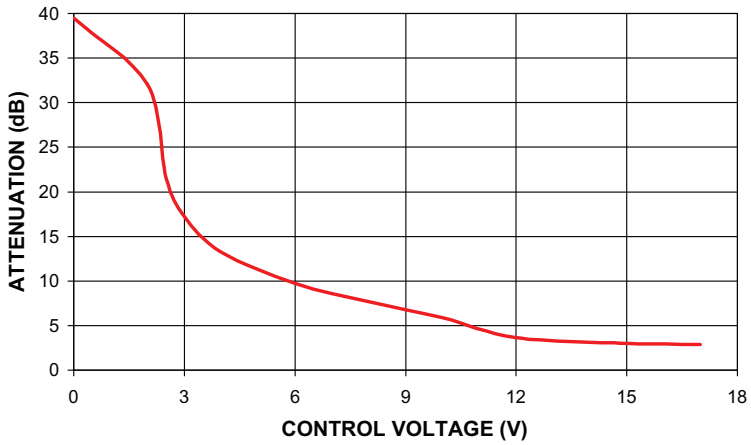
Notes:

Rise/Fall time: 5μSec/4μSec Typ.
Switching Time, turn on/off: 6μSec. Typ.

Equivalent Schematic

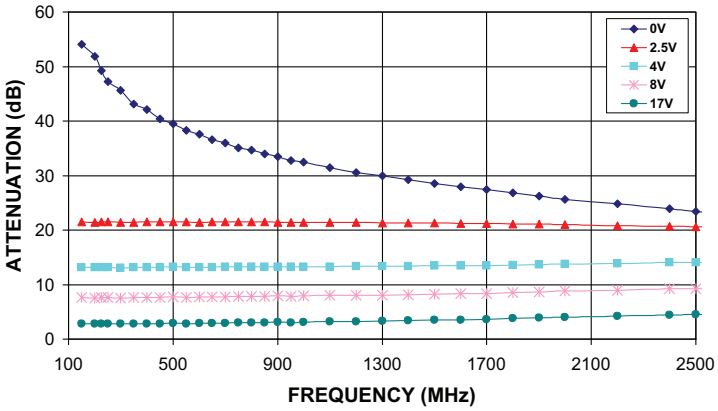


RVA-2000+
TYPICAL ATTENUATION AT 500 MHz

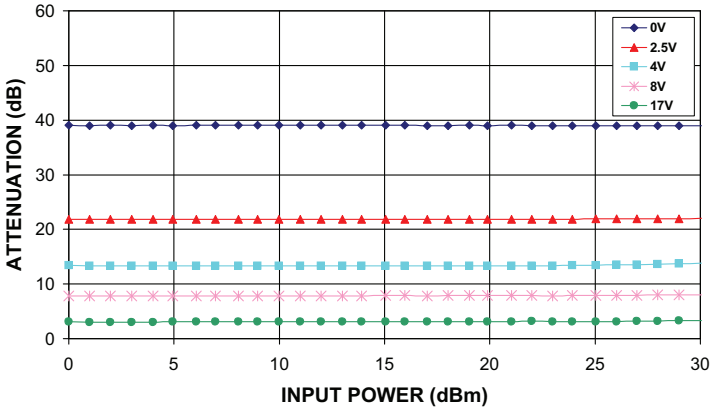


REV. OR
M106828
EDR-7056/4F1
RVA-2000+
RAV
121023

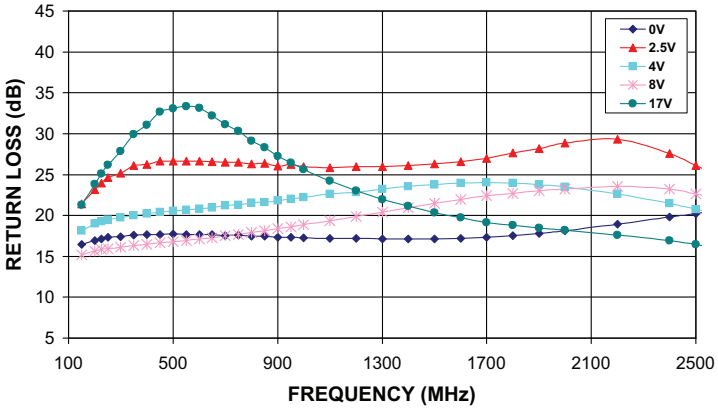
RVA-2000+
ATTENUATION Vs. FREQUENCY
OVER CONTROL VOLTAGES



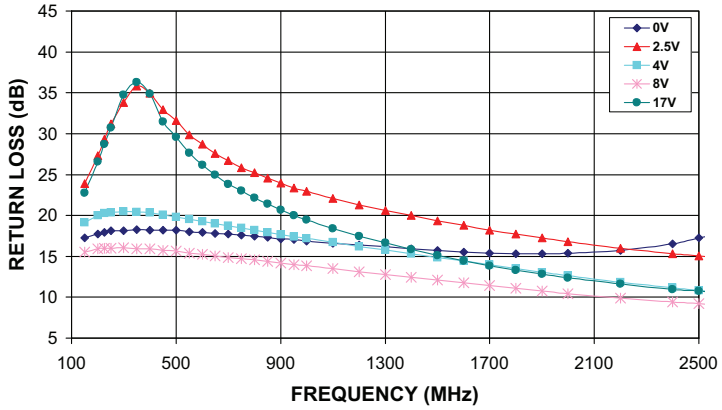
RVA-2000+
ATTENUATION Vs. INPUT POWER
OVER CONTROL VOLTAGES AT 500MHz



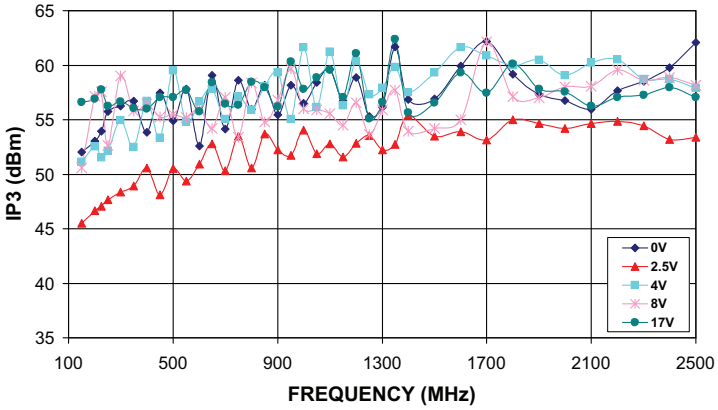
RVA-2000+
INPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
OUTPUT RETURN LOSS Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
IP3 Vs. FREQUENCY
OVER CONTROL VOLTAGES



RVA-2000+
PHASE SHIFT Vs. FREQUENCY
OVER CONTROL VOLTAGES