

Voltage Variable Attenuator

RVA-3000R+

Typical Performance Data

V CONTROL (V)	ATTENUATION at V+= 5V			
	(dB)			
	@ 20 MHz	@ 50 MHz	@ 500 MHz	@ 1000 MHz
0.0	58.7	52.0	41.3	36.3
2.0	29.4	29.3	30.0	30.5
2.5	17.3	17.1	17.5	18.5
3.0	13.5	13.4	13.7	14.5
3.5	11.6	11.5	11.8	12.7
4.0	10.4	10.4	10.6	11.5
5.0	8.9	9.0	9.2	10.2
6.0	8.0	8.1	8.3	9.3
8.0	6.6	6.7	7.0	7.9
10.0	5.0	5.1	5.3	6.0
12.0	2.6	2.7	3.0	3.7
15.0	2.4	2.5	2.8	3.5
17.0	2.3	2.4	2.8	3.4

FREQ. (MHz)	ATTENUATION Vs. V CONTROL @ V+=5V				
	(dB)				
	@V Control=0V	@V Control=2.5V	@V Control=4V	@V Control=8V	@V Control=17V
20	58.65	17.28	10.39	6.63	2.33
50	67.40	17.12	10.30	6.57	2.26
100	59.05	17.06	10.30	6.60	2.28
150	93.78	17.04	10.29	6.61	2.29
200	57.81	17.04	10.31	6.64	2.31
250	71.58	17.03	10.30	6.64	2.32
300	56.00	17.06	10.33	6.67	2.35
400	53.88	17.09	10.37	6.71	2.40
500	52.00	17.10	10.37	6.72	2.42
600	50.30	17.13	10.41	6.77	2.47
700	48.67	17.23	10.49	6.84	2.56
800	46.35	17.19	10.44	6.79	2.54
1000	45.07	17.24	10.47	6.82	2.60
1250	42.66	17.32	10.54	6.90	2.70
1500	41.30	17.48	10.63	6.97	2.77
1750	39.88	17.61	10.74	7.08	2.87
2000	37.81	17.81	10.88	7.21	2.96
2250	37.57	17.77	10.94	7.33	3.08
2500	38.03	18.01	11.12	7.50	3.19
2750	36.94	18.31	11.34	7.68	3.31
3000	36.30	18.50	11.52	7.85	3.44
3250	35.32	18.70	11.74	8.06	3.60
3500	35.42	19.09	12.00	8.25	3.68
3750	35.84	19.17	12.15	8.37	3.74
4000	34.42	19.60	12.45	8.56	3.79
4250	35.17	19.73	12.73	8.82	3.97
4500	35.69	20.06	13.00	9.00	4.04
4750	35.96	20.47	13.31	9.22	4.15
5000	34.53	20.74	13.62	9.48	4.29
5250	34.30	20.64	13.81	9.74	4.53
5500	36.80	20.84	13.93	9.88	4.68
5750	38.60	20.76	13.91	9.96	4.85
6000	37.56	20.63	13.91	10.10	5.14

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

REV. OR

RVA-3000R+

190729

Page 1 of 5



Voltage Variable Attenuator

RVA-3000R+

Typical Performance Data

FREQ. (MHz)	INPUT RETURN LOSS Vs. V CONTROL @ V+=5V				
	(dB)				
	@V Control=0V	@V Control=2.5V	@V Control=4V	@V Control=8V	@V Control=17V
20	13.71	17.46	13.34	11.33	17.38
50	15.94	23.90	14.63	12.08	23.35
100	16.44	27.41	14.89	12.23	25.83
150	16.54	28.09	14.90	12.25	26.36
200	16.58	28.49	14.95	12.29	26.48
250	16.58	28.19	14.94	12.30	26.31
300	16.59	28.18	14.97	12.32	26.09
400	16.51	27.99	15.11	12.45	25.89
500	16.47	26.61	15.03	12.42	24.87
600	16.37	26.19	15.15	12.53	24.64
700	16.03	25.07	15.38	12.76	23.89
800	15.99	24.05	15.17	12.61	22.91
1000	15.65	22.68	15.22	12.75	22.48
1250	15.11	21.13	15.46	13.14	22.72
1500	14.79	19.87	15.48	13.48	23.69
1750	14.39	18.99	15.77	14.13	26.03
2000	14.12	18.20	15.94	14.83	29.97
2250	13.69	17.45	16.25	15.80	38.56
2500	13.47	16.65	16.11	16.52	44.63
2750	13.25	15.95	15.95	17.24	32.85
3000	13.03	15.41	15.86	18.01	28.56
3250	12.82	14.99	15.64	18.41	26.81
3500	12.75	14.47	15.18	18.46	24.74
3750	12.65	13.97	14.68	18.17	23.76
4000	12.78	13.53	14.12	17.60	22.78
4250	12.53	12.93	13.41	16.67	23.03
4500	12.19	12.08	12.43	15.32	21.07
4750	11.65	11.27	11.57	14.14	19.22
5000	11.14	10.71	11.06	13.38	17.98
5250	10.50	10.30	10.62	12.59	17.19
5500	10.05	10.06	10.40	12.06	15.66
5750	9.94	10.26	10.63	11.92	13.78
6000	10.09	10.94	11.36	12.17	11.98

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



Voltage Variable Attenuator

RVA-3000R+

Typical Performance Data

FREQ. (MHz)	OUTPUT RETURN LOSS Vs. V CONTROL @ V+=5V				
	(dB)				
	@V Control=0V	@V Control=2.5V	@V Control=4V	@V Control=8V	@V Control=17V
20	13.55	17.44	13.57	11.55	17.44
50	15.67	23.88	14.95	12.34	23.59
100	16.14	27.32	15.23	12.51	26.39
150	16.18	27.81	15.27	12.55	27.07
200	16.18	27.97	15.33	12.61	27.45
250	16.11	27.39	15.36	12.66	27.42
300	16.05	27.13	15.42	12.73	27.47
400	15.85	26.06	15.54	12.89	27.47
500	15.60	25.08	15.70	13.07	26.99
600	15.30	24.39	16.02	13.39	27.38
700	14.81	23.12	16.45	13.84	26.37
800	14.60	22.33	16.46	13.91	26.20
1000	14.07	21.43	17.13	14.61	27.55
1250	13.52	20.48	18.18	15.72	30.30
1500	13.43	20.47	19.03	16.61	37.86
1750	13.51	20.93	19.98	17.41	34.80
2000	14.00	22.01	20.15	17.54	28.04
2250	14.61	22.87	19.85	17.39	24.38
2500	15.76	23.16	18.58	16.69	22.02
2750	17.16	21.62	17.10	15.93	20.67
3000	18.33	19.48	15.88	15.41	19.72
3250	18.73	17.35	14.71	14.94	19.51
3500	18.09	15.43	13.65	14.64	20.33
3750	16.83	14.00	12.84	14.42	21.60
4000	15.69	12.87	12.12	14.15	23.38
4250	14.47	11.96	11.45	13.69	23.90
4500	13.41	11.06	10.72	13.05	23.63
4750	12.52	10.34	10.13	12.50	23.09
5000	11.80	9.80	9.70	12.07	22.98
5250	11.10	9.35	9.29	11.56	22.42
5500	10.59	9.02	9.04	11.22	20.31
5750	10.40	9.02	9.10	11.15	16.98
6000	10.52	9.37	9.47	11.30	14.23

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



Typical Performance Data

FREQ. (MHz)	INPUT IP3 Vs. V CONTROL @ V+=5V (dBm)			
	@V Control=2.5V	@V Control=4V	@V Control=8V	@V Control=17V
20	26.36	35.96	40.13	53.48
30	29.97	38.81	43.43	54.49
50	33.51	41.92	46.32	55.19
100	38.69	47.28	49.81	53.52
120	40.04	47.28	52.84	58.03
250	46.29	53.73	52.79	55.85
500	49.62	52.24	51.87	55.56
512	50.18	53.57	54.14	55.54
750	49.67	60.23	51.99	56.57
1000	48.54	55.04	53.31	54.80
1150	49.24	53.98	53.62	55.15
1200	48.74	52.61	55.88	55.15
1250	48.91	53.82	51.65	54.96
1500	53.02	57.01	55.98	56.95
2400	48.24	52.68	51.92	55.46
2700	48.63	52.92	51.66	55.64
3000	55.24	56.77	55.69	62.38
3600	49.78	51.51	52.36	52.79
4000	49.96	50.97	52.40	53.80

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



Voltage Variable Attenuator

RVA-3000R+

Typical Performance Data

FREQ. (MHz)	PHASE SHIFT Vs. V CONTROL @ V+=5V (relative to V Control= 17V)			
	(deg)			
	@V Control=2.5V	@V Control=4V	@V Control=8V	@V Control=12V
20	2.65	1.65	0.28	0.04
50	0.59	0.44	0.13	0.00
100	-0.96	-0.39	-0.16	-0.01
150	-1.00	-0.49	-0.20	0.00
200	-1.80	-0.94	-0.46	0.00
250	-1.69	-0.96	-0.49	0.01
300	-2.41	-1.35	-0.72	0.01
400	-2.99	-1.72	-0.94	0.02
500	-3.56	-2.09	-1.18	0.02
600	-4.12	-2.41	-1.37	0.02
700	-4.73	-2.85	-1.69	0.03
800	-5.57	-3.25	-1.87	0.02
1000	-6.60	-3.75	-2.06	0.01
1250	-8.15	-4.42	-2.29	-0.02
1500	-9.67	-5.03	-2.42	-0.05
1750	-11.35	-5.67	-2.57	-0.09
2000	-13.27	-6.37	-2.78	-0.14
2250	-14.62	-6.90	-2.98	-0.17
2500	-15.35	-7.15	-3.12	-0.19
2750	-16.89	-7.80	-3.48	-0.20
3000	-18.34	-8.37	-3.80	-0.21
3250	-20.72	-9.18	-4.20	-0.23
3500	-21.60	-9.51	-4.41	-0.24
3750	-23.10	-10.33	-4.95	-0.24
4000	-25.90	-11.72	-5.73	-0.24
4250	-28.81	-13.29	-6.51	-0.24
4500	-31.12	-14.77	-7.39	-0.24
4750	-34.23	-16.85	-8.57	-0.24
5000	-39.77	-20.34	-10.39	-0.25
5250	-45.23	-23.84	-12.16	-0.29
5500	-47.95	-26.51	-13.90	-0.34
5750	-51.44	-29.55	-15.88	-0.40
6000	-57.05	-33.10	-17.84	-0.45

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

