

Voltage Variable Equalizer, 75Ω

VAEQ-1000-75+

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) Vcontrol		Input Return Loss (dB) Vcontrol		Output Return Loss (dB) Vcontrol		Deviation from Linear Loss (dB) Vcontrol		Insertion Phase (deg) Vcontrol		Input IP3 (dBm) Vcontrol	
	0V		2.7V		0V		2.7V		0V		2.7V	
	0V	2.7V	0V	2.7V	0V	2.7V	0V	2.7V	0V	2.7V	0V	2.7V
50	14.58	14.47	23.84	23.86	23.15	24.74	-1.31	-1.24	20.22	19.83	46.14	50.99
75	14.15	14.04	24.46	24.46	23.37	24.91	-1.12	-1.06	16.16	15.77	49.75	50.58
100	13.78	13.69	24.74	24.70	23.33	24.70	-1.01	-0.96	14.35	13.90	53.35	50.17
125	13.42	13.33	24.38	24.30	22.89	23.90	-0.89	-0.85	13.24	12.75	54.17	50.40
150	13.03	12.96	24.32	24.21	22.70	23.31	-0.75	-0.72	12.27	11.77	54.98	50.63
175	12.62	12.56	24.86	24.71	22.52	22.86	-0.59	-0.57	11.26	10.75	55.63	51.40
200	12.20	12.16	24.83	24.70	21.70	21.82	-0.42	-0.42	10.05	9.54	56.27	52.16
225	11.80	11.76	23.80	23.72	20.75	20.62	-0.26	-0.26	8.63	8.13	55.28	52.11
250	11.38	11.36	23.01	22.98	20.31	19.97	-0.10	-0.11	7.01	6.54	54.28	52.06
275	10.97	10.95	22.80	22.82	19.91	19.47	0.06	0.05	5.17	4.74	55.52	52.59
300	10.57	10.56	22.25	22.27	18.96	18.50	0.21	0.20	3.09	2.68	56.76	53.11
325	10.20	10.19	21.11	21.13	18.00	17.50	0.34	0.32	0.78	0.39	56.42	53.62
350	9.83	9.84	20.28	20.27	17.34	16.83	0.45	0.43	-1.62	-1.98	56.08	54.12
375	9.47	9.48	19.83	19.80	16.57	16.09	0.57	0.54	-4.16	-4.48	55.78	54.30
400	9.13	9.13	19.04	19.00	15.67	15.22	0.66	0.63	-6.94	-7.23	55.47	54.47
425	8.82	8.84	17.92	17.90	15.02	14.59	0.71	0.68	-9.84	-10.09	54.55	53.94
450	8.52	8.54	17.16	17.17	14.51	14.10	0.76	0.73	-12.75	-12.97	53.63	53.41
475	8.23	8.24	16.56	16.60	13.77	13.39	0.81	0.78	-15.80	-15.97	53.98	54.02
500	7.96	7.98	15.68	15.72	13.05	12.71	0.83	0.80	-18.96	-19.10	54.32	54.63
525	7.72	7.74	14.80	14.84	12.58	12.27	0.82	0.79	-22.19	-22.29	53.98	53.54
550	7.49	7.51	14.28	14.31	12.04	11.77	0.80	0.78	-25.45	-25.52	53.63	52.45
575	7.26	7.28	13.76	13.77	11.34	11.11	0.78	0.75	-28.70	-28.74	53.16	52.87
600	7.04	7.06	12.95	12.94	10.81	10.61	0.75	0.73	-32.00	-32.01	52.69	53.29
625	6.85	6.87	12.26	12.25	10.42	10.24	0.69	0.67	-35.49	-35.48	53.16	52.92
650	6.70	6.72	11.86	11.85	9.88	9.72	0.59	0.58	-38.90	-38.87	53.62	52.55
675	6.53	6.54	11.30	11.31	9.32	9.19	0.52	0.51	-42.16	-42.09	53.00	52.37
700	6.33	6.34	10.61	10.62	8.96	8.84	0.47	0.46	-45.64	-45.56	52.38	52.19
725	6.20	6.21	10.13	10.14	8.61	8.51	0.34	0.34	-49.31	-49.22	52.79	52.10
750	6.12	6.12	9.83	9.83	8.14	8.05	0.18	0.18	-52.69	-52.58	53.19	52.00
775	5.97	5.97	9.31	9.30	7.75	7.68	0.08	0.08	-55.96	-55.86	52.65	51.65
800	5.81	5.81	8.76	8.75	7.45	7.40	-0.01	0.00	-59.62	-59.50	52.10	51.29
825	5.74	5.74	8.41	8.40	7.09	7.04	-0.19	-0.17	-63.35	-63.23	51.74	51.85
850	5.70	5.70	8.10	8.10	6.74	6.70	-0.40	-0.39	-66.56	-66.43	51.37	52.40
875	5.57	5.57	7.64	7.63	6.47	6.44	-0.52	-0.50	-69.74	-69.60	51.31	51.80
900	5.44	5.44	7.24	7.24	6.17	6.15	-0.64	-0.61	-73.52	-73.38	51.24	51.19
930	5.43	5.43	6.93	6.92	5.78	5.76	-0.93	-0.90	-77.68	-77.55	-	-
950	5.39	5.38	6.67	6.66	5.60	5.59	-1.09	-1.06	-80.04	-79.90	52.30	51.09
975	5.27	5.26	6.29	6.28	5.39	5.39	-1.22	-1.19	-83.46	-83.32	51.30	50.70
1000	5.22	5.22	6.05	6.04	5.08	5.08	-1.42	-1.38	-86.98	-86.82	50.29	50.30

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-Circuit's 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/MCStore/terms.jsp



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VAEQ-1000-75+

Typical Performance Data

Frequency (MHz)	Insertion Loss		Input Return Loss		Output Return Loss		Deviation from Linear Loss		Insertion Phase		Input IP3	
	(dB) Vcontrol		(dB) Vcontrol		(dB) Vcontrol		(dB) Vcontrol		(deg) Vcontrol		(dBm) Vcontrol	
	6V	10V	6V	10V	6V	10V	6V	10V	6V	10V	6V	10V
50	4.06	1.48	12.72	22.56	11.34	22.18	-0.04	-0.27	-2.17	-0.25	45.69	47.15
75	4.02	1.45	12.85	22.63	11.52	22.66	-0.02	-0.20	-6.00	-3.74	47.72	49.42
100	4.00	1.44	12.90	22.19	11.58	22.42	-0.02	-0.14	-9.35	-6.69	49.74	51.69
125	4.01	1.44	12.93	21.45	11.61	21.78	-0.05	-0.10	-12.50	-9.46	51.17	53.27
150	3.99	1.45	13.12	20.87	11.72	21.19	-0.05	-0.07	-15.53	-12.13	52.59	54.84
175	3.96	1.45	13.36	20.44	11.79	20.48	-0.04	-0.03	-18.49	-14.81	52.47	56.38
200	3.96	1.47	13.40	19.68	11.76	19.49	-0.06	0.00	-21.42	-17.40	52.35	57.91
225	3.96	1.49	13.42	18.78	11.86	18.70	-0.08	0.02	-24.32	-19.93	53.72	58.35
250	3.95	1.51	13.67	18.25	12.06	18.27	-0.08	0.04	-27.18	-22.49	55.08	58.79
275	3.91	1.53	13.90	17.87	12.10	17.67	-0.07	0.06	-30.00	-25.11	55.45	58.23
300	3.90	1.55	13.92	17.18	12.08	16.85	-0.07	0.08	-32.91	-27.71	55.82	57.66
325	3.90	1.60	14.06	16.51	12.22	16.27	-0.09	0.08	-35.77	-30.20	55.27	56.59
350	3.87	1.64	14.41	16.23	12.36	15.85	-0.08	0.08	-38.52	-32.64	54.72	55.52
375	3.82	1.67	14.61	15.95	12.38	15.21	-0.05	0.10	-41.29	-35.17	54.21	55.83
400	3.80	1.70	14.62	15.35	12.53	14.64	-0.05	0.10	-44.12	-37.79	53.69	56.13
425	3.78	1.77	14.89	14.91	12.82	14.43	-0.05	0.08	-46.84	-40.27	53.08	54.52
450	3.73	1.81	15.31	14.83	12.93	14.15	-0.02	0.08	-49.48	-42.52	52.46	52.91
475	3.68	1.85	15.41	14.56	12.93	13.59	0.01	0.09	-52.22	-44.79	53.39	53.67
500	3.64	1.90	15.42	14.03	13.16	13.26	0.03	0.08	-54.93	-47.26	54.31	54.43
525	3.60	1.96	15.82	13.81	13.41	13.18	0.06	0.06	-57.56	-49.67	53.82	53.38
550	3.56	2.02	16.22	13.86	13.35	12.82	0.08	0.04	-60.16	-51.71	53.33	52.33
575	3.50	2.06	16.09	13.56	13.30	12.32	0.12	0.04	-62.71	-53.61	53.86	53.19
600	3.43	2.09	15.96	13.11	13.51	12.16	0.17	0.05	-65.34	-55.73	54.39	54.04
625	3.39	2.15	16.27	13.06	13.57	12.09	0.18	0.04	-68.00	-57.92	54.04	53.33
650	3.37	2.23	16.50	13.20	13.31	11.73	0.19	0.00	-70.51	-59.89	53.68	52.62
675	3.31	2.26	16.08	12.90	13.19	11.45	0.23	0.01	-72.96	-61.62	52.42	52.06
700	3.26	2.29	15.75	12.63	13.24	11.45	0.26	0.03	-75.63	-63.32	51.15	51.49
725	3.26	2.37	15.84	12.78	13.01	11.37	0.24	-0.01	-78.27	-65.28	52.79	52.70
750	3.28	2.46	15.74	12.95	12.57	11.11	0.21	-0.06	-80.59	-67.45	54.43	53.90
775	3.26	2.48	15.07	12.71	12.30	11.04	0.21	-0.04	-82.92	-69.33	53.68	53.27
800	3.25	2.50	14.54	12.57	12.02	11.04	0.19	-0.02	-85.53	-70.91	52.92	52.63
825	3.30	2.56	14.39	12.77	11.51	10.86	0.13	-0.03	-88.09	-72.77	53.58	53.32
850	3.36	2.62	14.07	12.84	11.06	10.69	0.05	-0.05	-90.40	-75.18	54.23	54.00
875	3.37	2.61	13.47	12.60	10.75	10.67	0.02	0.00	-92.90	-77.51	53.60	53.07
900	3.42	2.63	13.12	12.56	10.33	10.53	-0.05	0.03	-95.89	-79.34	52.96	52.13
930	3.59	2.74	12.91	12.71	9.78	10.25	-0.24	-0.04	-99.27	-81.74	-	-
950	3.69	2.81	12.62	12.63	9.55	10.19	-0.36	-0.07	-101.35	-83.88	54.40	53.31
975	3.80	2.89	12.15	12.42	9.26	10.13	-0.49	-0.11	-104.30	-86.69	53.86	52.94
1000	4.00	3.04	11.91	12.42	8.81	9.85	-0.70	-0.22	-107.25	-88.90	53.31	52.57

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