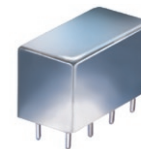


Plug-In Attenuator/Switch

50Ω Bi-Phase 5 to 450 MHz

PAS-1+



CASE STYLE: A01
PRICE: \$38.70 ea. QTY. (1-9)

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

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Maximum Ratings

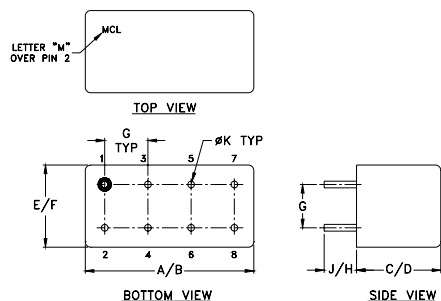
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Control Current	30mA
Permanent damage may occur if any of these limits are exceeded.	

Pin Connections

INPUT	1
OUTPUT	8
CONTROL	3,4^
GROUND	2,5,6,7
CASE GROUND	2

^ pins must be connected together externally

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	
.770	.800	.385	.400	.370	.400	
19.56	20.32	9.78	10.16	9.40	10.16	
G	H	J	K			wt
.200	.20	.14	.031			grams
5.08	5.08	3.56	0.79			5.2

Features

- wideband, 5 to 450 MHz
- hermetic case
- high in-out isolation
- low insertion loss, 3.5 dB typ.

Applications

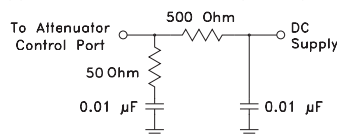
- military hi-rel applications
- bi-phase modulator
- electronic attenuator

Attenuator/Switch Electrical Specifications

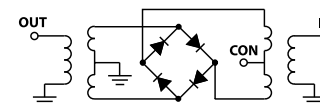
FREQUENCY (MHz)	INSERTION LOSS (dB) ±20 mA	MAX. INPUT PWR (dBm) ±20 mA	IN-OUT ISOLATION (dB) 0 mA						BI-PHASE X (±20 mA) Typ.						
			L		M		U		ΔAMP (dB)		Phase (deg.) deviation from 180°				
IN f _L -f _U	CON	Mid-Band m	Total Range	1 dB compr.	no damage	Typ.	Min.	Typ.	Min.	Typ.	Min.	Total Range	m	Total Range	
5-450	DC-0.05	3.5 4.0	3.5 4.7	20	29	65	50	45	35	35	25	0.1	0.1	0.5	1.2

L = low range [f_L to 10 f_L] M = mid range [10 f_L to f_U/2] U = upper range [f_U/2 to f_U] m = [2 f_L to f_U/2]
Performance specifications apply for input power up to 10 dB below stated 1 dB compression.

suggested control port biasing configuration

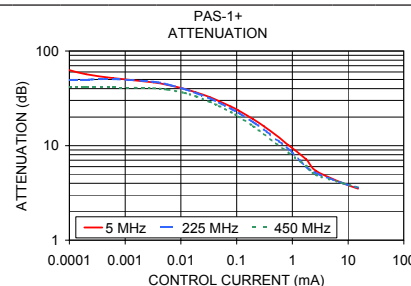
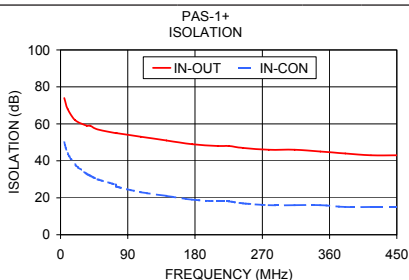
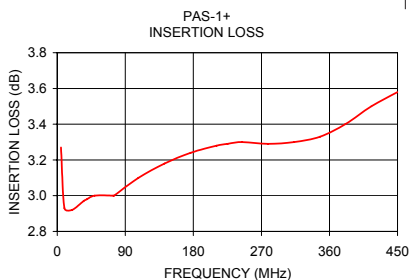


electrical schematic



Typical Performance Data

Freq. (MHz)	I. Loss (dB) at 20mA	±Control ΔAMP (dB)	20mA ΔPhase (deg.)	Isolation (dB)		Input R. Loss (dB)	Control Current (mA)	Attenuation (dB)			Phase Δ ref at 15mA Ctrl			Input VSWR			
				(in-out)	(in-con)			5 MHz	225 MHz	450 MHz	5 MHz	225 MHz	450 MHz	5 MHz	225 MHz	450 MHz	
5.0	3.27	0.025	0.02	179.9	74	50	11.8	0.0000	68.1	50.0	41.3	-52.4	124.7	108.2	2.9	2.9	2.6
9.5	2.93	0.019	0.02	179.9	68	44	13.4	0.0001	62.8	49.6	41.6	-9.9	119.7	103.2	2.9	2.9	2.6
19.5	2.92	0.017	0.02	179.9	62	38	14.3	0.0002	56.7	49.9	41.3	-18.0	114.6	102.4	2.9	2.9	2.6
35.0	2.97	0.017	0.02	179.9	59	33	14.5	0.0006	51.7	50.5	41.3	-20.7	101.4	95.5	2.9	2.9	2.6
39.5	2.98	0.017	0.03	179.9	59	32	14.5	0.0032	46.6	47.3	40.4	-10.7	58.4	76.3	2.9	2.9	2.6
49.5	3.00	0.017	0.03	179.9	57	30	14.4	0.0058	43.8	44.3	39.0	-6.4	45.6	60.3	2.9	2.9	2.6
74.0	3.00	0.019	0.04	179.8	55	27	14.1	0.0116	39.8	39.6	36.0	-0.4	29.9	43.3	2.8	2.9	2.6
75.1	3.00	0.018	0.03	179.8	55	26	14.1	0.0184	36.6	36.1	33.2	3.3	24.8	33.3	2.8	2.8	2.5
107.4	3.10	0.019	0.04	179.7	53	23	14.3	0.0327	32.6	31.6	29.1	5.9	18.3	23.7	2.8	2.7	2.4
141.8	3.18	0.019	0.04	179.7	51	21	14.6	0.0486	29.5	28.4	26.2	6.9	15.6	19.4	2.7	2.7	2.4
176.3	3.24	0.021	0.04	179.6	49	19	14.5	0.0787	25.9	24.6	22.6	7.6	13.3	14.8	2.6	2.5	2.2
210.8	3.28	0.021	0.04	179.5	48	18	14.6	0.1081	23.5	22.2	20.3	7.9	12.2	12.8	2.5	2.4	2.1
225.3	3.29	0.023	0.04	179.5	48	18	14.7	0.1975	19.1	17.8	16.1	7.8	10.0	9.7	2.2	2.2	1.9
244.2	3.30	0.024	0.04	179.4	47	17	14.8	0.3085	16.0	14.8	13.3	7.4	8.7	7.9	2.0	1.9	1.7
278.7	3.29	0.024	0.04	179.3	46	16	15.1	0.5100	12.9	11.7	10.6	6.5	7.3	6.0	1.7	1.7	1.4
313.2	3.30	0.026	0.05	179.2	46	16	15.1	0.8548	10.1	9.2	8.4	5.3	5.5	4.4	1.5	1.4	1.2
347.7	3.33	0.029	0.05	179.1	45	16	14.8	1.7555	7.2	6.0	6.1	3.3	3.4	2.5	1.3	1.2	1.1
381.0	3.40	0.034	0.05	179.1	44	15	15.0	2.6670	5.4	5.1	4.9	2.0	2.0	1.3	1.3	1.2	1.2
415.5	3.50	0.041	0.06	179.0	43	15	14.7	8.1232	4.0	4.0	4.0	0.5	0.5	0.4	1.5	1.4	1.4
450.0	3.58	0.044	0.06	178.9	43	15	13.7	15.1218	3.5	3.6	3.6	0.0	-0.1	0.0	1.6	1.5	1.4



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