

Surface Mount Attenuator/Switch

75Ω Bi-Phase 10 to 1000 MHz

RAS-2-75+
RAS-2-75



CASE STYLE: TT241
PRICE: \$9.95 ea. QTY. (1-9)

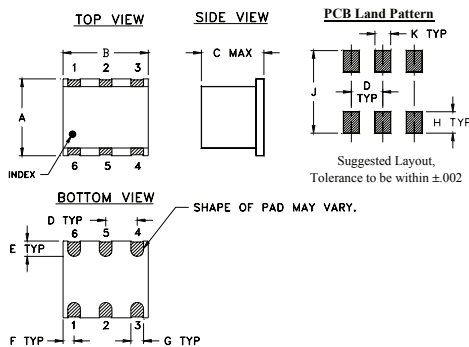
Maximum Ratings

Operating Temperature	-40°C to 85°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	4
OUTPUT	1
CONTROL	5
GROUND	2,3,6

Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F
.250	.31	.275	.100	.050	.055
6.35	7.87	6.99	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

Features

- wideband, 10 to 1000 MHz
- excellent phase and amplitude unbalance

Applications

- bi-phase modulator

+RoHS Compliant

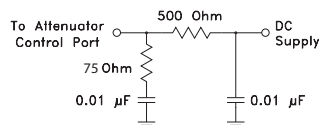
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Attenuator/Switch Electrical Specifications

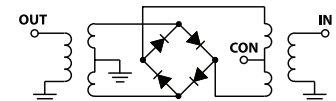
FREQUENCY (MHz)	INSERTION LOSS (dB) ±20 mA	MAX. INPUT PWR (dBm) ±20 mA	IN-OUT ISOLATION (dB) 0 mA						BI-PHASE X (±20 mA) Typ.			
			L		M		U		Δ AMP (dB)	Phase (deg.) deviation from 180°		
IN f _L -f _U	CON	Mid-Band m	Total Range		1 dB compr.		no damage		Typ.	Min.	Typ.	Min.
10-1000	DC-0.05	4.1 6.0	4.5 7.5	20 25	58 40	42 28	39 20	0.15 0.3	1.5 3.0			

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

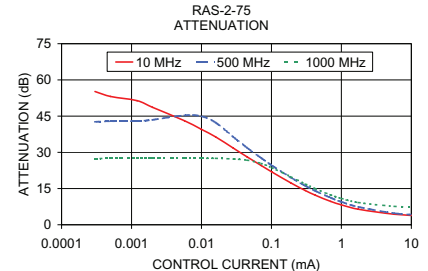
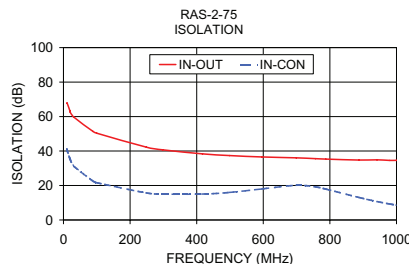
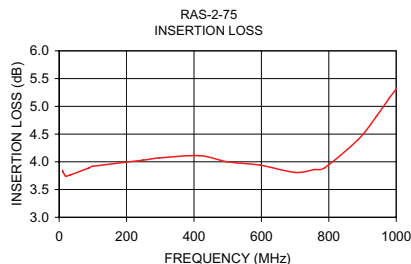


electrical schematic



Typical Performance Data

Freq. (MHz)	I. Loss (dB) at 20mA		±Control ΔΔAMP (dB)	20mA ΔΔPhase (deg.)	Isolation (dB)		Input R. Loss (dB)	Control Current (mA)	Attenuation (dB)			Phase Δ ref at 15mA Ctrl			Input VSWR		
					(in-out)	(in-con)			10 MHz	500 MHz	1000 MHz	10 MHz	500 MHz	1000 MHz	10 MHz	500 MHz	1000 MHz
	$\bar{X}$	σ	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$	$\bar{X}$					deg.	deg.	deg.			
10.0	3.85	0.03	0.02	179.9	68	41	10.1	0.0000	72.9	42.4	27.4	77.0	123.7	-103.5	2.1	3.1	3.1
11.1	3.82	0.03	0.02	179.9	68	40	10.2	0.0003	55.2	42.7	27.4	11.3	120.0	-102.9	2.1	3.1	3.1
18.9	3.74	0.03	0.02	179.9	63	36	10.6	0.0005	53.2	42.9	27.5	7.8	118.9	-102.6	2.1	3.1	3.1
20.0	3.74	0.03	0.02	180.0	63	35	10.7	0.0012	51.4	43.0	27.5	3.9	117.5	-102.4	2.1	3.1	3.1
31.6	3.76	0.02	0.02	180.0	60	31	10.7	0.0020	48.6	43.5	27.5	-0.2	112.3	-101.5	2.1	3.1	3.1
88.8	3.89	0.03	0.02	179.9	51	23	10.3	0.0057	43.1	45.3	27.5	1.3	90.0	-98.1	2.1	3.1	3.0
100.0	3.92	0.03	0.02	179.9	50	22	10.2	0.0100	39.5	44.9	27.5	3.7	57.7	-94.3	2.0	3.1	3.0
249.1	4.03	0.04	0.03	179.8	42	16	8.9	0.0159	36.4	42.4	27.5	5.1	30.2	-89.7	2.0	3.1	3.0
297.8	4.07	0.05	0.03	179.8	41	15	8.5	0.0285	31.8	36.4	27.2	6.5	7.1	-79.2	2.0	3.0	2.9
417.3	4.11	0.07	0.05	179.6	38	15	7.9	0.0446	28.2	32.0	26.8	7.2	-1.1	-68.6	1.9	2.9	2.8
498.9	4.00	0.08	0.06	179.2	37	16	7.9	0.0715	24.6	27.7	25.4	7.4	-5.8	-54.2	1.8	2.8	2.7
596.4	3.94	0.09	0.08	178.5	37	18	8.5	0.1020	21.8	24.5	23.6	7.5	-7.7	-43.6	1.7	2.7	2.6
699.0	3.81	0.10	0.11	177.8	36	20	10.0	0.1879	17.4	19.7	20.0	7.0	-9.0	-27.2	1.5	2.5	2.4
756.8	3.86	0.12	0.11	177.5	36	19	11.1	0.3050	14.2	16.2	16.9	6.3	-8.9	-17.7	1.4	2.3	2.2
787.4	3.89	0.14	0.15	177.4	35	18	12.0	0.4255	12.2	14.0	14.9	5.7	-8.5	-12.5	1.2	2.1	2.0
887.0	4.40	0.24	0.24	176.4	35	13	13.7	0.7057	9.7	11.2	12.3	4.5	-7.4	-6.6	1.1	2.0	1.8
941.4	4.82	0.31	0.39	175.6	35	11	15.6	0.9950	8.3	9.6	10.9	3.7	-6.6	-3.4	1.2	1.9	1.6
979.5	5.15	0.36	0.39	175.1	35	9	15.2	1.7446	6.5	7.4	9.2	2.5	-4.9	0.2	1.4	1.8	1.5
999.1	5.30	0.38	0.40	175.0	35	9	14.5	5.6985	4.4	4.8	7.6	0.6	-1.6	1.8	1.8	1.8	1.2
1019.2	5.47	0.41	0.45	175.1	35	8	13.8	15.0090	3.7	3.9	7.3	0.0	0.0	0.1	2.1	1.9	1.1



Notes

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