

low current, bi-phase

Electronic Attenuators/Switches

1 MHz to 2.0 GHz

case style selection

outline drawings see Table of Contents



LRAS



TFAS



SYAS



PAS
GAS

MODEL NO.	FREQUENCY MHz		INSERTION LOSS dB (±20 mA)				MAX. INPUT POWER dBm (±20 mA)		IN-OUT ISOLATION dB (0 mA)						BI-PHASE X (±20 mA)				CAPD DATA	CASE STYLE	CONNECTION	PRICE \$
	IN	CON	Mid-Band Total				1 dB comp. no damage		L M U						Δ AMP (dB)				(see RF/IF Designer hand-book)	Note B	Qty. (1-9)	
	f_L - f_U		Typ.	Max.	Typ.	Max.			Typ.	Min.	Typ.	Min.	Typ.	Min.	m	Total Range	m	Phase(deg) Deviation From 180° Total Range				
PAS-1*	5-450	DC-0.05	3.5	4.0	3.5	4.7	20	30	65	50	45	35	35	25	0.1	0.1	0.5	1.2	4-10	A01	cf	33.95
PAS-2*	10-1000	DC-0.05	4.0	6.0	6.5	8.5	20	30	50	40	40	30	35	25	0.1	0.3	0.5	1.0	4-10	A01	cg	47.95
PAS-3*	1-200	DC-0.05	1.4	2.0	1.6	2.5	15	30	65	50	50	40	50	35	0.1	0.1	0.5	1.0	4-11	A01	cf	34.95
PAS-2000**	100-2000	DC-0.5	4.2	6.5	5.4	7.5	19*	25	30	22	—	—	26	20	0.3	0.4	5.0	8.0	4-11	A05	ch	24.95
□ TFAS-1*	2-400	DC-0.05	1.4	2.0	1.6	3.0	20*	25	65	45	45	33	35	25	0.1	0.1	1.0	2.0	4-12	B02	cm	13.95
□ TFAS-2**	10-1000	DC-0.5	3.7	4.5	5.0	8.0	17*	25	50	30	42	20	31	20	0.1	0.2	2.0	3.0	4-12	B02	cm	17.95
□ TFAS-860**	500-1000	DC-0.5	—	—	1.5	5.4	14	25	30	(typ.)	20	(min.)	—	—	—	0.3	—	4.0	4-13	B02	cm	19.95
● SYAS-1*	2-400	DC-0.05	1.4	2.0	1.6	3.0	20*	25	65	45	45	33	35	25	0.1	0.1	1.0	2.0	4-12	TT167	ck	9.95
● SYAS-2**	10-1000	DC-0.05	4.0	6.0	4.5	7.0	17*	25	59	40	42	28	28	20	0.1	0.3	2.0	3.0	4-12	TT167	ck	13.95
● SYAS-860**	600-1000	DC-0.5	—	—	2.7	5.7	14	25	25	(typ.)	18	(min.)	—	—	—	0.5	—	4.0	4-13	TT166	ck	15.95
□ GAS-1**	5-450	DC-0.05	3.3	4	3.5	5.0	20	25	60	48	45	35	35	25	0.10	0.1	1.0	1.5	4-10	A05	cf	13.95
□ GAS-2**	10-1000	DC-0.05	4.3	6	5.2	8.5	20	25	55	40	35	25	28	20	0.10	0.3	1.5	3.0	4-10	A05	cg	15.95
□ GAS-3**	5-200	DC-0.05	1.2	2	1.4	2.5	20	25	50	45	45	35	40	30	0.10	0.1	0.5	1.0	4-11	A05	cf	14.95
● RAS-1**	2-400	DC-0.05	1.4	2	1.6	3.2	20*	25	65	45	45	28	32	22	0.10	0.1	1.0	2.0	-	TT146	ge	7.95
■ RAS-2-75**	10-1000	DC-0.05	4.1	6	4.5	7.5	20	25	58	40	42	28	39	20	0.15	0.3	1.5	3.0	-	TT100	cj	9.95
■ LRAS-2-75**	10-1000	DC-0.05	4.1	6	4.5	7.5	20	25	58	40	42	28	39	20	0.15	0.3	1.5	3.0	-	QQQ130	cj	9.95

L = low range (f_L to $10f_L$)

M = mid range ($10f_L$ to $f_U/2$)

U = upper range ($f_U/2$ to f_U)

m = mid band ($2f_L$ to $f_U/2$)

NOTES:

- * Recommended for electronic attenuator
- ** Recommended for bi-phase modulator
- Surface-mount, non-hermetic, available on tape and reel
- Denotes 75 Ohm model, for coax connector models 75 Ohm BNC connectors are standard.
- Non-hermetic, TFAS units available in surface-mount, add suffix SM (case style NNN-150), which is available on tape and reel.
- * +15 dBm from 100-800 MHz
- ✱ +15 dBm from 2-10 MHz
- ★ +13 dBm from 10-500 MHz
- A. General Quality Control Procedures, Environmental Specifications, Hi-Rel, MIL and TX description are given in section 0, see "Mini-Circuits Guarantees Quality" article.
- B. Connector types and case mounted options, case finishes are given in section 0, see "Case styles & Outline Drawings".
- C. Prices and specifications subject to change without notice.
- 1. Absolute maximum power, voltage and current ratings:
1a. Control current, 30mA
- 2. Performance specifications apply for input power up to 10 dB below stated 1 dB compression;
example: +5dBm in 2-10MHz range for TFAS-1.

