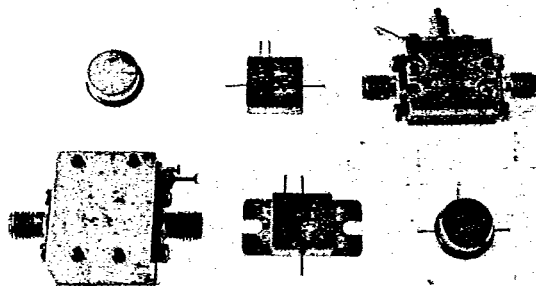


AH-11-2

T-74-09-01



5 to 1000 MHz TO-8 Cascadable Amplifier

- Low Noise: +2.5dB
- High Gain: +16.5dB
- Various Package Options (see photo)
Surface Mounted (SMTO-8), Flatpack with flange (FPF), Connectorized (CAH), Connectorized Flatpack (CFP), Flatpack (FP), and TO-8 (AH)

Electrical Specifications

Measured in a 50-ohm system at +15 Vdc nominal

Characteristic	Typical 25°C	Guaranteed 0°C to +50°C	Specifications -54°C to +85°C
Frequency (MHz Min.)	5-1000	5-1000	5-1000
Small Signal Gain (dB Min.)	+16.5	+15.0	+14.0
Gain Flatness (dB Max.)	±0.3	±0.9	±1.0
Noise Figure (dB Max.)	+2.5	+3.0	+3.5
Power Output @ 1 dB Compression (dBm Min.)	-0.3	-3.0	-3.5
Two Tone 3rd Order Intercept Point (dBm Min.)	+12.0	+8.0	+6.0
Two Tone 2nd Order Intercept Point (dBm Min.)	+14.0	+13.0	+11.0
One Tone 2nd Harmonic Intercept Point (dBm Min.)	+16.0	+18.0	+15.0
Input/Output VSWR (Max.)	<1.6:1	1.9:1	2.0:1
DC Current at 15 V (mA Max.)	+9.0	+11.0	+12.0

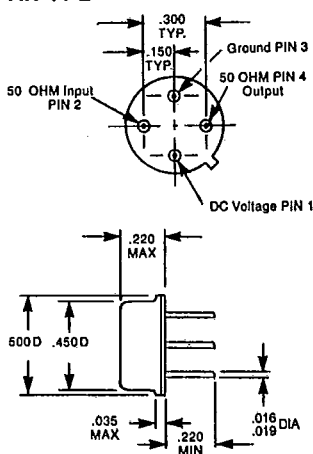
Maximum Ratings

Ambient Operating Temperature	-54°C to +100°C
Storage Temperature ...	-62°C to +125°C
Maximum Case Temperature	+125°C
Maximum DC Voltage	+18.0V
Maximum Continuous RF Input Power	+13.0dBm
Maximum Short Term RF Input Power	+50.0 mW (1 minute Max.)
Maximum Peak Power	+0.5W (3μseconds Max.)
"X" Series Burn-In Temperature	+125°C
Weight	+2.5 grams Max.

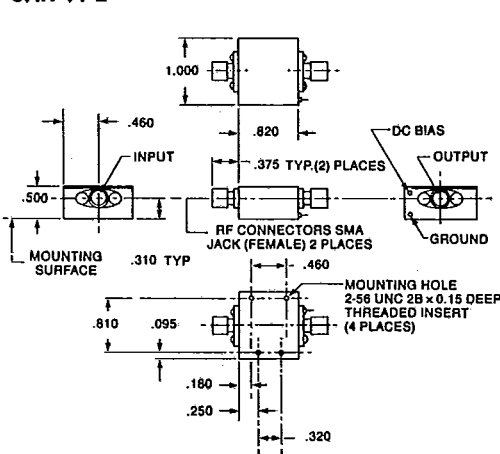
Outline Drawings

(For additional package configurations, see Section 9)

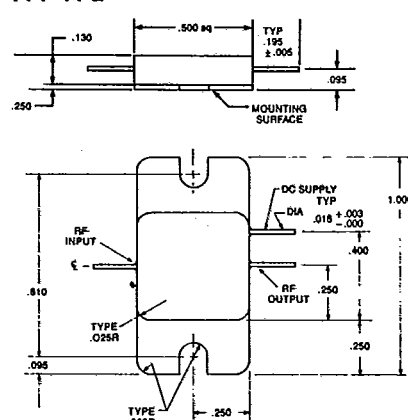
AH-11-2



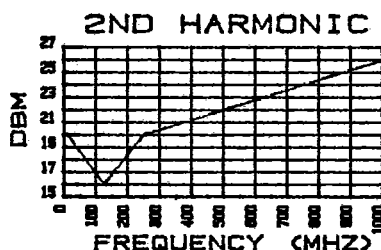
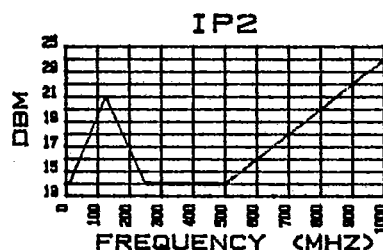
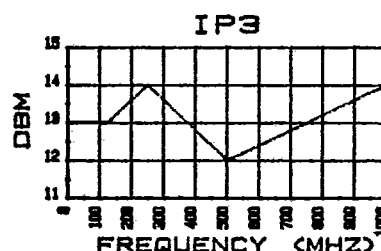
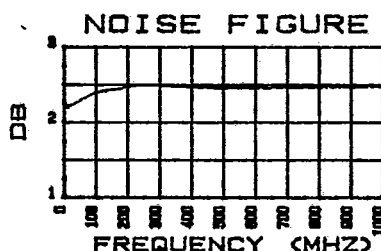
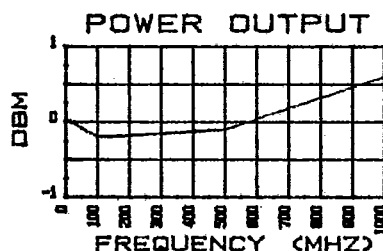
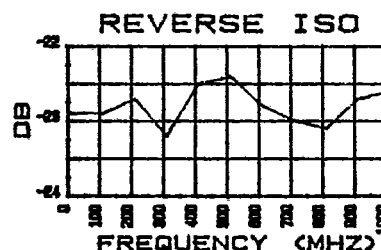
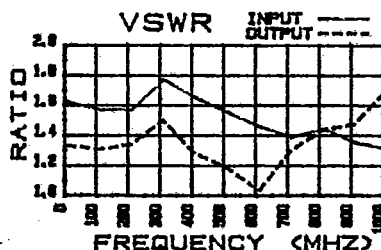
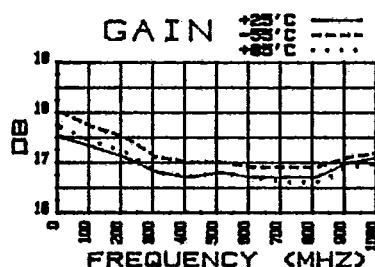
CAH-11-2



FPF-11-2



Typical Performance



AH-11-2 8.8 mA @ 15.0Vdc Linear S-Parameters

FREQUENCY MHz	RETURN LOSS INPUT (S11)		TRANS. GAIN FORWARD (S21)		TRANS. GAIN REVERSE (S12)		RETURN LOSS OUTPUT (S22)	
	dB	ANG	dB	ANG	dB	ANG	dB	ANG
10.000	-12.5	158.0	17.50	178.5	-22.90	0.0	-17.0	130.3
110.000	-13.1	137.3	17.30	151.3	-22.90	-16.5	-17.5	149.8
210.000	-13.1	106.3	17.10	128.5	-22.70	-27.3	-16.7	121.0
310.000	-11.1	92.8	16.80	105.5	-23.20	-36.2	-14.0	104.5
410.000	-12.2	60.3	16.70	81.8	-22.50	60.3	-18.3	80.5
510.000	-13.3	42.2	16.80	58.5	-22.40	-66.0	-21.4	88.8
610.000	-14.6	17.2	16.70	35.2	-22.80	-81.3	-36.2	115.3
710.000	-15.8	-49.8	16.70	10.7	-23.00	-93.5	-17.7	-171.5
810.000	-14.8	-87.5	16.70	-13.8	-23.10	-108.8	-14.9	-177.8
910.000	-16.5	-102.8	17.00	-37.5	-22.70	-124.8	-14.3	156.0
1010.000	-17.4	-157.8	17.10	-63.0	-22.60	-134.5	-11.7	131.0

Deviation from Linear Phase, Gain, Group Delay, and VSWR

FREQUENCY (MHz)	VSWR INPUT	DEV. LIN. 0 (DEG.)	GAIN DEV. (dB)	GROUP DELAY (n-SEC)	VSWR OUTPUT
10.000	1.622	1.375	0.555	0.000	1.329
110.000	1.568	-2.009	0.355	0.757	1.308
210.000	1.568	-0.893	0.155	0.632	1.343
310.000	1.772	-0.027	-0.145	0.639	1.499
410.000	1.651	0.089	-0.245	0.660	1.277
510.000	1.552	0.705	-0.145	0.646	1.186
610.000	1.458	1.320	-0.245	0.646	1.031
710.000	1.387	0.686	-0.245	0.681	1.300
810.000	1.445	0.052	-0.245	0.681	1.439
910.000	1.352	0.168	0.055	0.660	1.478
1010.000	1.312	-1.466	0.155	0.708	1.703