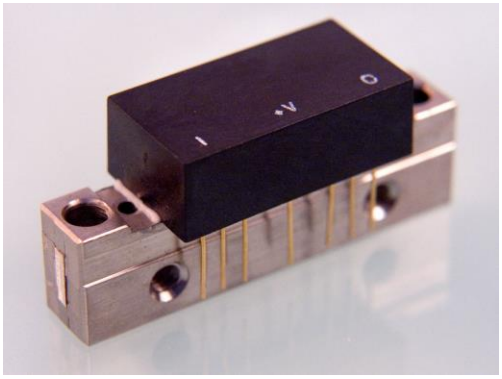
AMPLIFIER SOLUTIONS CORPORATION

ASC501

Features: (typical values)

- Output Power – 700mW @ 1dB compression, f=50 MHZ
- Very high Gain
- Low Noise Figure – 3.6 dB
- IP3 – 45 dBm @ f = 100 MHZ
- IP2 – 75 dBm
- Usable for 50 – 100 ohm systems
- Unconditional Stability

0.1 – 100 MHz
38 dB CATV Wideband Linear Amplifier



Maximum Ratings

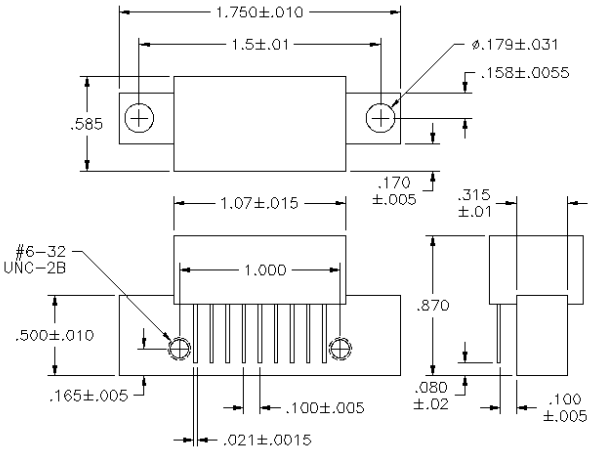
Storage temperature ..... -40˚C to +100˚C
DC Operating Voltage ..... +28.0 volts
RF Input Voltage ..... +5 dBm. Max.
Operating Base Temp. ..... -20 to +100˚C

Specifications @ Tcase = 25˚C, Vcc = 24V, 50 ohm systems unless otherwise noted.

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency Range		0.1	100	MHz.
Power Gain	37.5	36.0	39.0	dB.
Gain Flatness (peak to peak)	0.5		1.0	dB.
Input VSWR	1.4		2.0:1	-
Output VSWR	1.4		2.0:1	-
Noise Figure(f = 100mhz)	3.6		5.5	dB.
Power Output- 1db Compression (f = 0.1-100 MHz)	700	500		mW.
Third Order Intercept (IP3)	43	40		dBm.
Second Order Intercept (IP2)	75	60		dBm.
Supply Current	320		340	mA.

Pin Configuration

PIN# ..... Description
1 ..... Input
2,3,7,8 ..... Ground
5 ..... +V.
9 ..... Output
4, 6 ..... Not used



3009 Old State Rd, Telford, PA 18969 Phone: 215-799-2561 Fax: 215-799-2563
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ASC501

FINAL ELECTRICAL TEST REPORT

RECORD DATA @ +25^{0}C ONLY

TEST Vdc +24V	LIMITS 0^{0}C/+25^{0}C/+85^{0}C	ACTUAL DATA
Gain 1 MHz to 100 MHz	36.0 dB min 39.0 dB max	38.3 38.7
Gain Flatness 1 MHz to 100 MHz	1.0 dB p-p max	0.4
DC Current at +24 Vdc	340 mA max	324
Input VSWR 1 MHz to 100 MHz	2.0:1 max	1.2
Output VSWR 1 MHz to 100 MHz	2.0: 1 max	1.4
Noise Figure 1 MHz to 100 MHz	5.5 dB max	2.9
P 1.0 dB Compression 1 MHz to 100 MHz	500 mW min	>800
IP3 with Pout = +15.0 dBm 1) F(1,2)= 11, 12 MHz Fc(10,13 MHz) 2) F(1,2)= 48, 49 MHz Fc(47, 50 MHz) 3) F(1,2)= 98, 99 MHz Fc(97, 100 MHz)	+40.0 dB min	47.0
IP2 with Pout = +15.0 dBm 1) F(1,2)= 100, 98 MHz Fc(2.0 MHz) 2) F(1,2)= 98, 2 MHz Fc(100 MHz)	+60.0 dB min	83.0
Stability Test For all frequency range Where $\lvert S21 \rvert$ > 0dB	0 dB max	<0

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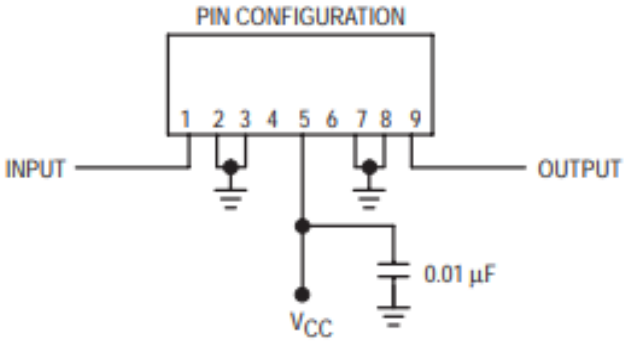

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