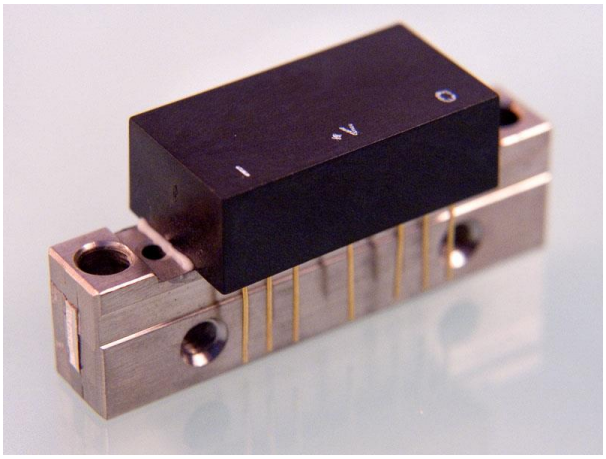
AMPLIFIER SOLUTIONS CORPORATION

ASC591

Features: (typical values)

- Output Power – 650mW @ 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

1.0 – 250 MHz
35 dB CATV Wideband Linear Amplifier



Maximum Ratings

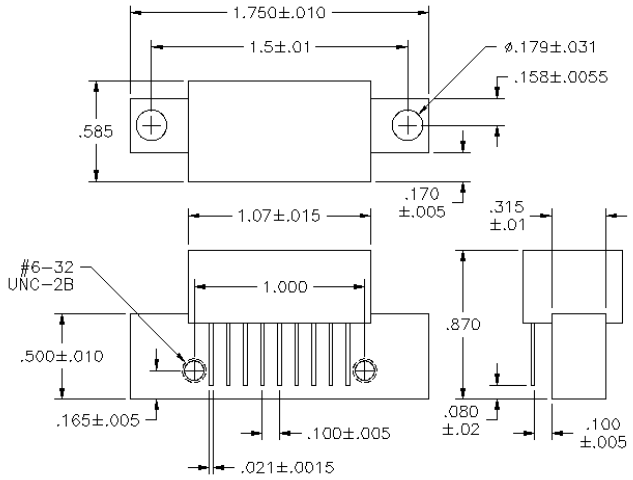
Storage temperature ..... -40˚C to +100˚C
DC Operating Voltage ..... +15.0 volts
RF Input Voltage ..... +5 dBm. Max.
Operating Base Temp. ..... -20 to +100˚C

Specifications @ Tcase = 25˚C, Vcc = 13.6V, 50 ohm systems unless otherwise noted.

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency Range		1.0	250	MHz.
Power Gain	35.0	33.0	37.0	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 = 200mhz)	3.6		5.5	dB.
Power Output- 1db Compression (f = 1-250 MHz)	700	400		mW.
Third Order Intercept (IP3)	40			dBm.
Second Order Intercept (IP2)	75	60		dBm.
Supply Current	300		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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FINAL TEST REPORT

TEST	LIMIT / S/N	ACTUAL DATA
Gain 1.0 MHz to 250 MHz	33.0 dB min 37.0dB max	35.8 36.4
Gain Flatness 1.0 MHz to 250 MHz	1.0 dB p-p max	0.6
DC Current at +13.6 Vdc	340 mA max	305
Input VSWR	2.0 max	1.55
Output VSWR	2.0 max	1.6
Noise Figure 1.0 MHz to 250 MHz	5.5 dB max	3.7
P 1.0 dB Compression 1.0 MHz to 250 MHz	26.0 dB min	27.3
IP3 @ Pout = +15.0 dBm 1) F(1,2) = 10, 11 MHz Fc (9, 12 MHz) 2) F(1,2) = 248, 249 MHz Fc (247, 250 MHz)	40.0 dBm Typ	41.0
IP2 @ Pout = +15.0 dBm 1) F(1+2) = 5 + 245 MHz Fc = 250 MHz 2) F(1-2) = 250-245 MHz Fc = 5 MHz	60.0 dBm min	69.0
Stability Test For all frequency range Where $\lvert S21 \rvert$ > 0dB	0 dB max	<0

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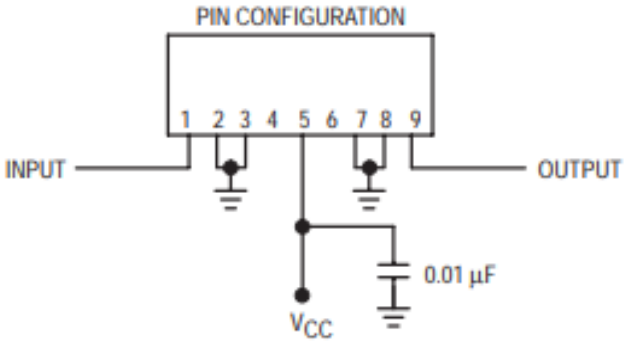
PIN CONFIGURATION
1 2 3 4 5 6 7 8 9
INPUT
OUTPUT
0.01 µF
VCC