

AGS555

10 TO 500 MHz SMT0-8 GAIN CONTROL AMPLIFIER

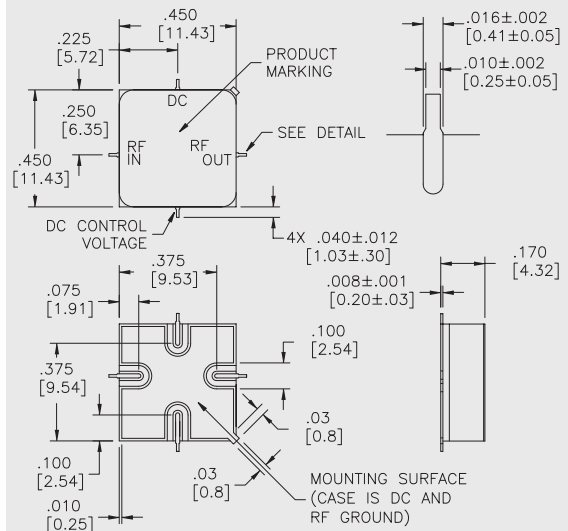
Typical Values

High Gain	27.0 dB
AGC Range (Vc = 0 to 5)	+30.0 dB
High Performance Thin Film Surface Mount TO-8 Package	

AGS555

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SMT0-8 Package for Gain Control Amplifier



SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	5-600 MHz	10-500 MHz	10-500 MHz
Gain (Min.) @ V _{CONTR.} = 0 Volts	27.0 dB	26.0 dB	25.5 dB
Gain Flatness (Max.) @ V _{CONTR.} = 0 Volts	±0.5 dB	±0.7 dB	±0.8 dB
AGC Range (Min.)	30 dB	26 dB	—
Noise Figure (Max.) @ V _{CONTR.} = 0 Volts	5.0 dB	6.0 dB	6.5 dB
SWR (Max.) Input/Output	1.6:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp. @ V _{CONTR.} = 0 Volts	+11.5 dBm	+10.0 dBm	+7.0 dBm
Response Time Full AGC	<10 μsec	12 μsec	12 μsec
DC Current (Max.) Bias	45 mA	48 mA	51 mA
DC Current (Max.) Vc ^A	0 to 10 mA	15 mA	18 mA

* Measured in a 50-ohm system at +5 Vdc unless otherwise specified.

^AAGC Voltage: 0 to +5 Volts.

INTERMODULATION PERFORMANCE

Typical @ 25 °C

AGS555

Second Order Harmonic Intercept Point	36 dBm
Second Order Two Tone Intercept Point	30 dBm
Third Order Two Tone Intercept Point	20 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to 125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+10 Volts
Maximum Continuous RF Input Power	+10 dBm
Maximum Short Term Input Power (1 Minute Max.)	50 Milliwatts
Maximum Peak Power (3 μsec Max.)	0.5 Watt
Burn-in Temperature	+125°C
Thermal Resistance¹ (θjc)	+39 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+12.3 °C

¹ Thermal resistance is based on total power dissipation.

DIMENSIONS ARE IN INCHES [MILLIMETERS]

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Gain Flatness (Max.)†	±0.5 dB	±0.7 dB	±0.8 dB
AGC Range (Min.)	30 dB	26 dB	—
Noise Figure (Max.)†	5.0 dB	6.0 dB	6.5 dB
SWR (Max.) Input/Output	1.6:1	2.0:1	2.0:1†
Power Output (Min.) @ 1dB comp.†	+11.5 dBm	+10.0 dBm	+7.0 dBm
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* Measured in a 50-ohm system at +5 Vdc unless otherwise specified.

^AGC Voltage: 0 to +5 Volts. † @ V_{CONTR.} = 0 Volts.

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Second Order Harmonic Intercept Point	AGS555 36 dBm
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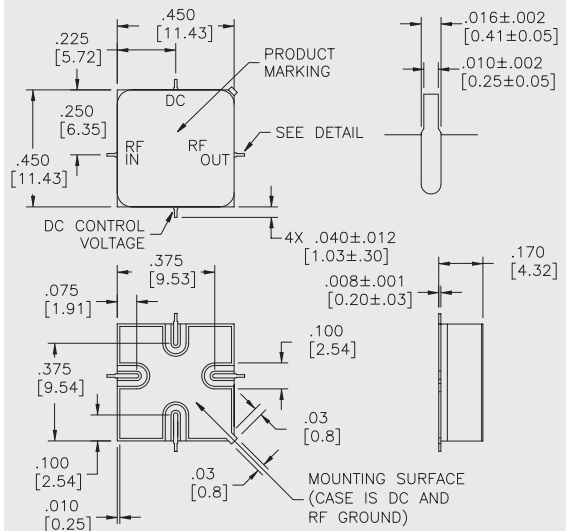
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Maximum DC Voltage	+10 Volts
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