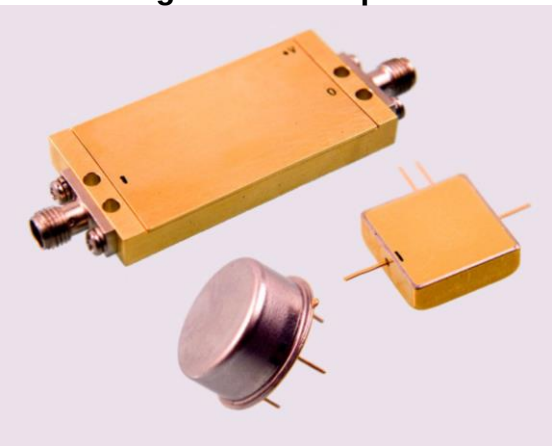
ASC2405

1-200 MHz
High Power Amplifier

Features: (typical values)

- Low Noise Figure …….. 3.2 dB.
- High Output Power ……..…. +27.0 dBm.
- High IP3 …….. +42 dBm.
- No external components required



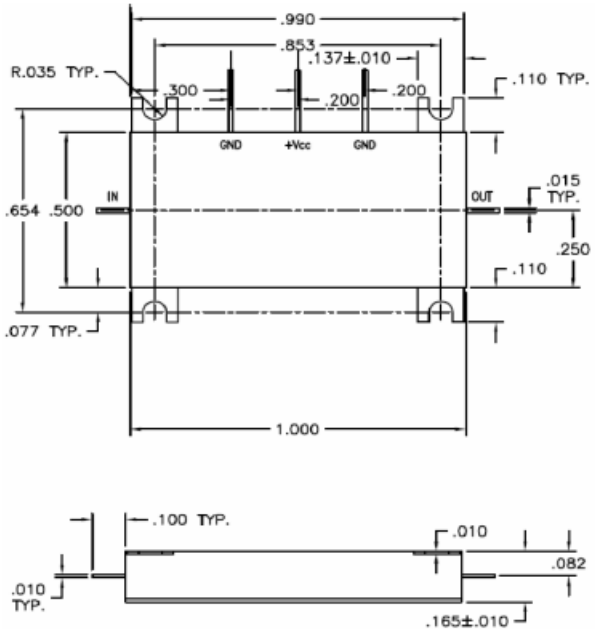
Maximum Ratings

Storage Temperature …….. -62˚C to +125˚C
DC Voltage ……..…. +15 volts
RF Input Power ……..…. +13.0 dBm.
Case Temperature ……..…. +125˚C
Max. Short Term RF Input Power (1 minute)…….... 50 mW.

Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		1	200	MHz.
Gain	18.4	16.0		dB.
Gain Flatness	±0.2		±1.0	dB.
Pout @ 1dB Comp	+27.0	+24.0		dBm.
Noise Figure	3.2		5.0	dB.
Reverse Isolation	20.0			dB.
IP2	+76.0			dBm.
IP3 (two-tone)*	+42.0			dBm.
Second Order Harmonic IP	80.0			dBm.
VSWR In/Out	1.5:1		1.9:1	Ratio
Supply Required	+15/155		+15/180	v/mA.

Min. and max. values are from -55˚C to +85˚C
*IP3 is an in band output intercept point @ +15 dBm. Per tone



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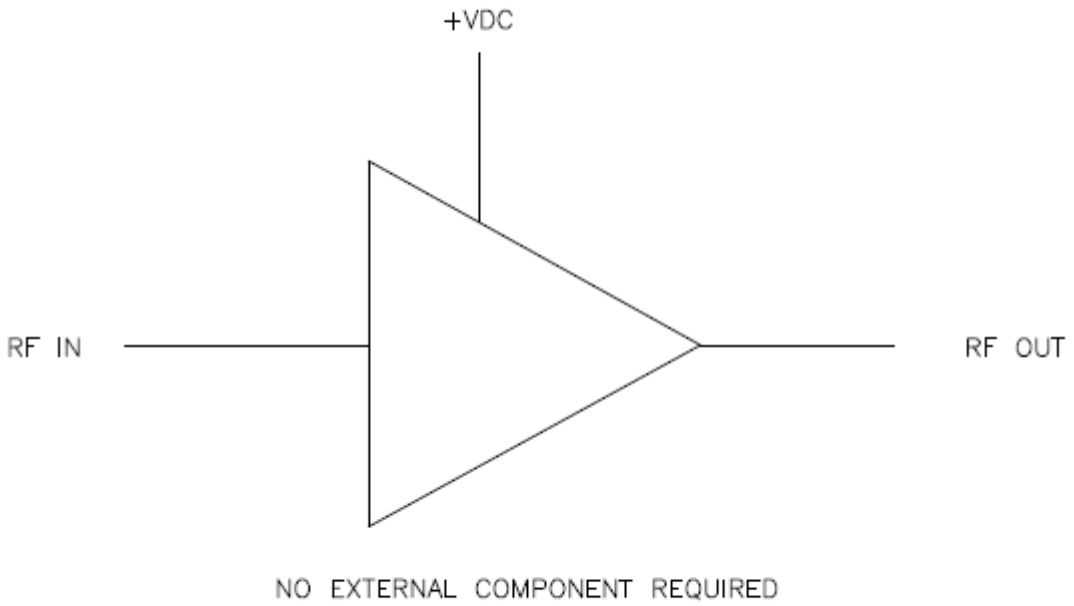
FINAL ELECTRICAL TEST REPORT

TEST	LIMITS / SN	ACTUAL DATA
GAIN 1 MHz TO 200 MHz	16.0 dB min	19.1
	18.4 dB typ	19.4
GAIN FLATNESS 1 MHz TO 200 MHz	±1.0 dB max	±0.15
DC CURRENT AT +15 Vdc	180 mA max	159
Gain Variation Over Temp. 1 MHz TO 200 MHz	0.7 dB typ	<0.5
Reverse Isolation 1 MHz TO 200 MHz	20dB typ	23
INPUT VSWR 1 MHz TO 200 MHz	1.9 : 1 max	1.34
OUTPUT VSWR 1 MHz TO 200 MHz	1.9 : 1 max	1.27
NOISE FIGURE 1 MHz TO 200 MHz	5.0 dB max	4.42
P1.0 dB COMPRESSION 1 MHz TO 200 MHz	24.0 dBm min	>25
IP2 WITH POUT= +15.0 dBm EACH TONE 1) F1-F2=200MHz-190MHz, Fc=10MHz 2) F1+F2=10MHz+190MHz, Fc=200MHz	76.0 dBm typ	75.5
IP3 WITH POUT= +15.0 dBm EACH TONE 1) F1/F2=2/3 MHz, Fc=1/4 MHz 2) F1/F2=198/199 MHz, Fc=197/200 MHz	42.0 dBm typ	41.5
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED

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