

RF Amplifier

- * Operating Frequency : 300-3000 MHz.
- * Gain : 35 dB. typ
- * High IP3 36 dBm.
- * No external components required

ELECTRICAL SPECIFICATION @ VDD= +15 VDC; Temp. = 25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	300		3000	MHz.
Gain	G	33	35	37	dB.
Gain Flatness	Δ G		±0.5	±1.0	dB.
Noise Figure	N.F.		3.5	4	dB.
Output Power	P 1dB	25	26		dBm.
Two Tone Intercept @ 12dBm output per tone	IP3	34	35		dBm.
Two Tone Intercept @ 12dBm output per tone	IP2	44	45		dBm.
VSWR in/out	S11/S22		1.6:1	1.8:1	Ratio
Operating Voltage	Vdc		15		Volt
Operating Current	Id		400	450	mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	1.05 x 0.62 x 0.30		
Cooling	None		
Monitor Connector	None		

PROTECTION

		Max	
RF Input Power		30	dBm.
Reverse Polarity Protection	N/A		
Load VSWR	Infinite up to 1W		
Stability	100% Tested		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	-40		70	°C
Storage Temperature	Tstg	- 55C		120°C	°C

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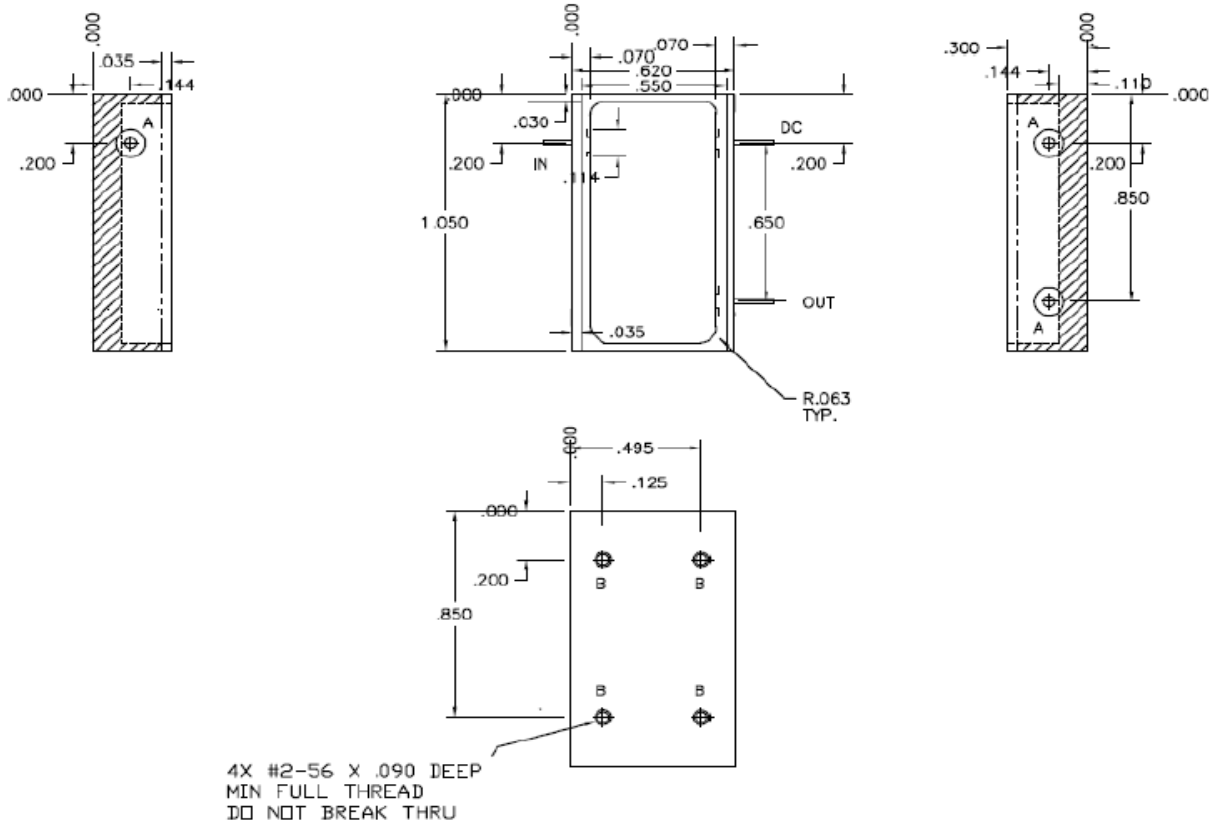
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DESCRIPTION ASC2402

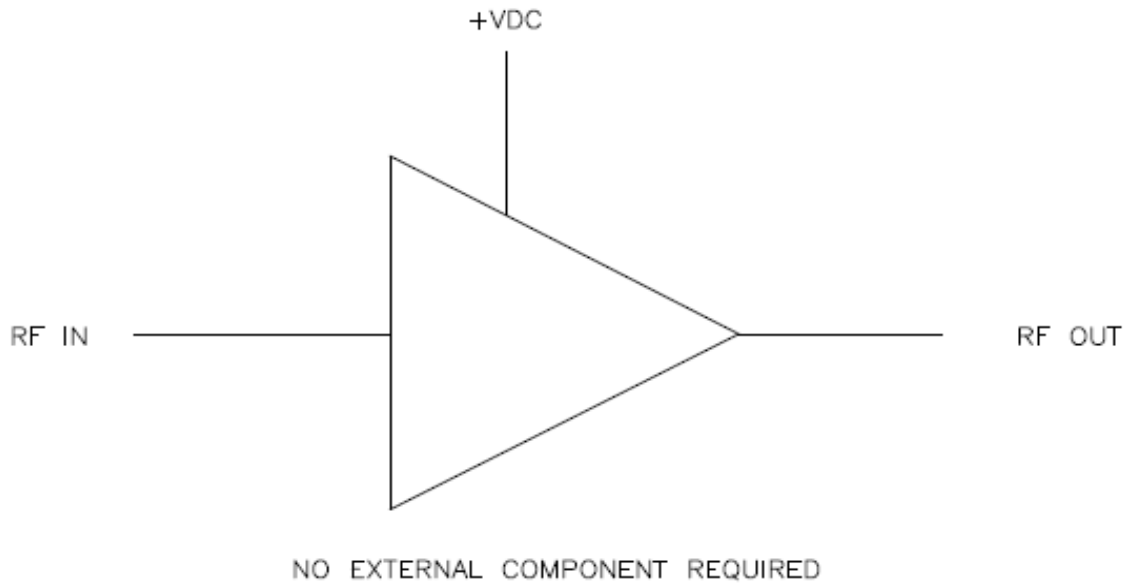
FINAL ELECTRICAL TEST REPORT
RECORD 3 UNITS SAMPLE DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS -40°C/+25°C/+70°C	ACTUAL DATA
Gain 300 MHz to 3000 MHz	33.0 dB min 37.0 dB max	34.9 36.1
Gain Flatness 300 MHz to 3000 MHz	± 1.0dB max	±0.6
DC Current at +15 Vdc	450 mA max	393
Input VSWR 300 MHz to 3000 MHz	1.8 : 1 max	1.7
Output VSWR 300 MHz to 3000 MHz	1.8 : 1 max	1.71
Noise Figure 300 MHz to 3000 MHz	4.0 db max	3.49
P 1.0 dB Compression 300 MHz to 3000 MHz	24 dBm min	26.1
IP3 with Pout = +12 dBm each tone 1) F1/F2 = 300/301 MHz Fc = 299/302 MHz 2) F1/F=1500/1501 MHz Fc = 1499/1502MHz 3) F1/F2 = 2999/3000 MHz Fc= 2998/3001 MHz	34 dBm min	37.5
IP2 with Pout = +12 dBm each tone 1) F1+F2 = 300 +301 MHz Fc = 601MHz 2) F1+F2 = 1499 + 1500 MHz Fc =2999 MHz	44 dBm min	52.0
Stability Test For all frequency range Where S21 > 0dB	0 dB max	<0
Max Pin: No Change in NF with Pin @ +30dBm, 1000MHz for 1 min	Accept / Reject	AC

Outline Drawing



FUNCTIONAL BLOCK DIAGRAM



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