

RF Amplifier

FEATURES:

- * Operating Frequency : 0.5 - 35 MHz.
- * High Output Power +31.5 dbm.
- * High IP3 +50 dbm.
- * High IP2 +93 dbm.
- * No external components required

ELECTRICAL SPECIFICATION @ VDD= + 24 VDC; Temp. = 25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	0.5		35	MHz.
Gain	G	21.2	21.9	22.6	dB.
Gain Flatness P-P	Δ G		±0.2	±0.4	dB.
Noise Figure	NF		4	5	dB.
Reverse Isolation	R.I	26	27		dB.
Output Power	P1dB	31	31.5		dBm.
3rd Order Intercept	IP3	49	50		dBm.
2nd Order Intercept	IP2	90	93		dBm.
Input VSWR	S11		1.3:1	1.5:1	Ratio
Output VSWR	S22		1.3:1	1.5:1	Ratio
Operating Voltage	Vdc		24		Volt
Operating Current	Id		410	420	mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	3.9 x 2.975 x 0.746		inches
RF Connectors IN/OUT	SMA-F		
DC Connector	Filtercon		
Cooling	NO		
Monitor Connector	None		

PROTECTIONS

Continuous RF Input Power	20 dBm.	Max	
Short term RF Input Power	200 mW(1 Minute Max)		
Maximum Peak Power	0.5W(3 us Max)		
Stability	100% Tested		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	-20°C		71°C	°C
Storage Temperature	Tstg	- 55C		125°C	°C

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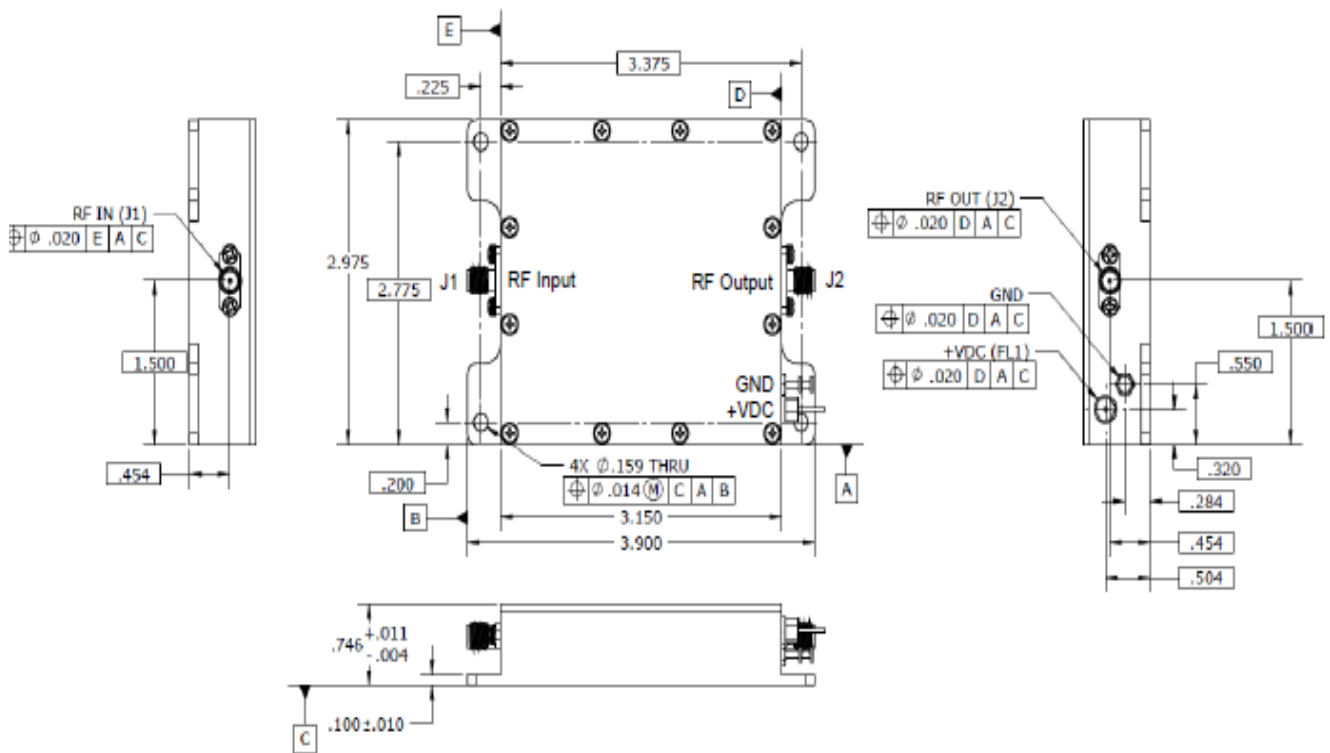
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FINAL ELECTRICAL TEST REPORT @ +25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 0.5 MHz TO 35 MHz	21.2 dB min	21.8
	22.6 dB max	22.1
GAIN FLATNESS 0.5 MHz TO 35 MHz	0.8 dB max	0.3
REVERSE ISOLATION	26 dB min	26.8
DC CURRENT AT +24 Vdc	420 mA max	390
INPUT VSWR 0.5 MHz TO 35 MHz	1.5: 1 max	1.33
OUTPUT VSWR 0.5 MHz TO 35 MHz	1.5: 1 max	1.24
NOISE FIGURE 0.5 MHz TO 35 MHz	5.0 dB max	4.33
P1.0 dB COMPRESSION 0.5 MHz TO 35 MHz	+31.0 dBm min	31.8
IP3 WITH POUT= +15 dBm EACH TONE 1) F1/F2=16 / 18 MHz, Fc= 14 / 20 MHz	49 dBm min	50.0
IP2 WITH POUT= +15 dBm EACH TONE 1) F1+F2 = 18 MHz + 16 MHz, Fc= 34 MHz 2) F1- F2 = 18 MHz - 16 MHz, Fc= 2 MHz	90 dBm min	94.0
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

Outline Drawing

(For Reference Only)

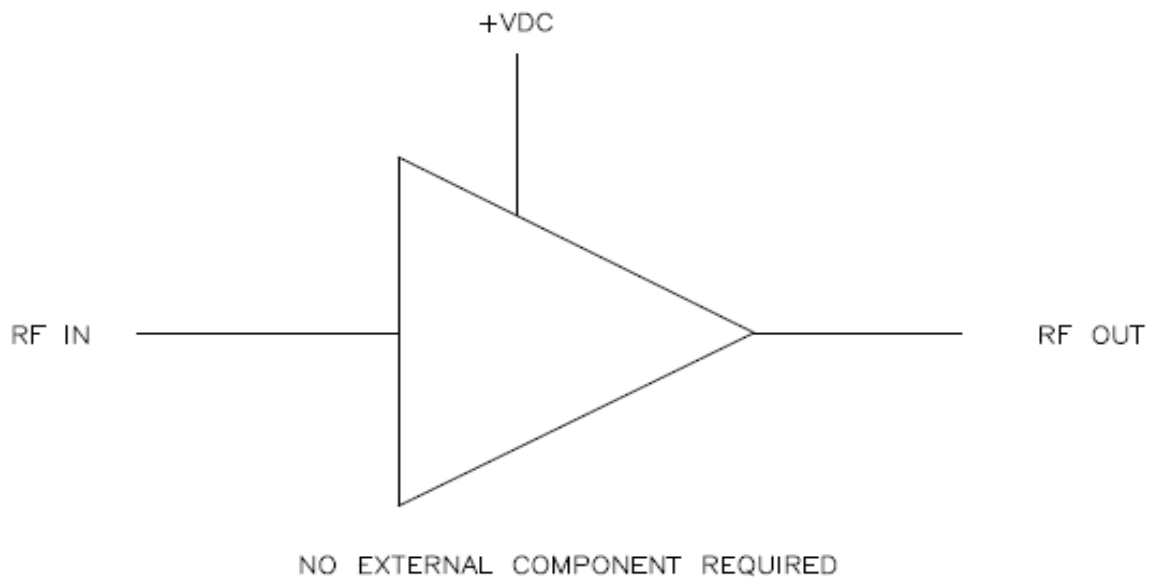


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FUNCTIONAL BLOCK DIAGRAM



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