

RF Amplifier

- * Operating Frequency : 6800-7800 MHz.
- * Gain : 25 dB.
- * NF: 0.7 dB.
- * P1dB: 15 dBm.
- * No external components required

ELECTRICAL SPECIFICATION @ VDD= +12 VDC; Temp. = 25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	6800		7800	MHz.
Gain	G	23	25	28	dB.
Gain Flatness	Δ G		±0.75	±1.0	dB.
Noise Figure	N.F.		0.7	1	dB.
Output Power	P 1dB	13	15		dBm.
VSWR in/out	S11/S22		1.8:1	2.0:1	Ratio
Operating Voltage	Vdc		12	15	Volt
Operating Current	Id		150		mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	0.86(L) x 0.70(W) x 0.29(H)		
Sealing	Hermetic		
Finished Coating	Gold Plate		
Cooling	None		
In/Out Connectors	SMA-M(In)/Female (Out) (Field Replaceable)		

PROTECTION

		Max	
RF Input Power CW		23	dBm.
Reverse Polarity Protection	YES		
Internal Voltage Regulation	YES		
Stability	100% Tested		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	-40		85	°C
Storage Temperature	Tstg	- 54C		85°C	°C
Altitude			Up to 30,000ft		
Vibration			12G 20-2000 Hz(Operating)		
			16 G 20-2000 Hz(Non-Operating)		
Shock		20G terminal peak saw tooth, 11 milliseconds			

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FINAL TEST REPORT ASC2848C

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

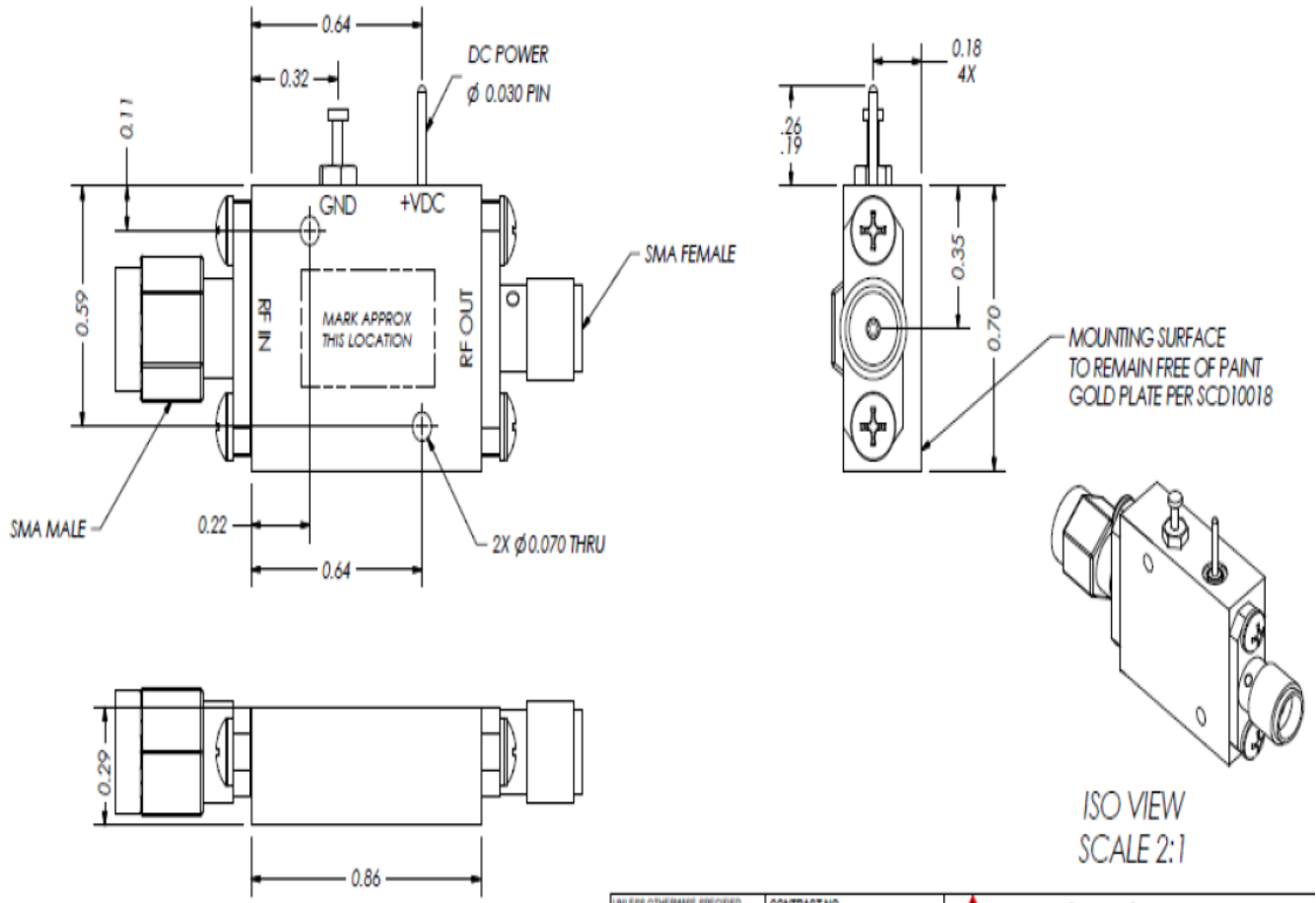
TEST	LIMITS / SN	ACTUAL DATA
GAIN 6800 MHz TO 7800 MHz	23.0 dB min	25.9
	28.0 dB max	26.4
GAIN FLATNESS 6800 MHz TO 7800 MHz	±1.0 dB max	±0.25
SPURIOUS RESPONSE	ACCEPT/REJECT	AC
DC CURRENT AT +15 Vdc	150 mA max	35
INPUT VSWR 6800 MHz TO 7800 MHz	2.0 : 1 max	1.48
OUTPUT VSWR 6800 MHz TO 7800 MHz	2.0 : 1 max	1.82
NOISE FIGURE 6800 MHz TO 7800 MHz	1.0 dB max	0.92
P1.0 dB COMPRESSION 6800 MHz TO 7800 MHz	12.0 dBm min	12.5
RF input power @ 6 GHz	+23 dBm max	AC
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

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Outline Drawing

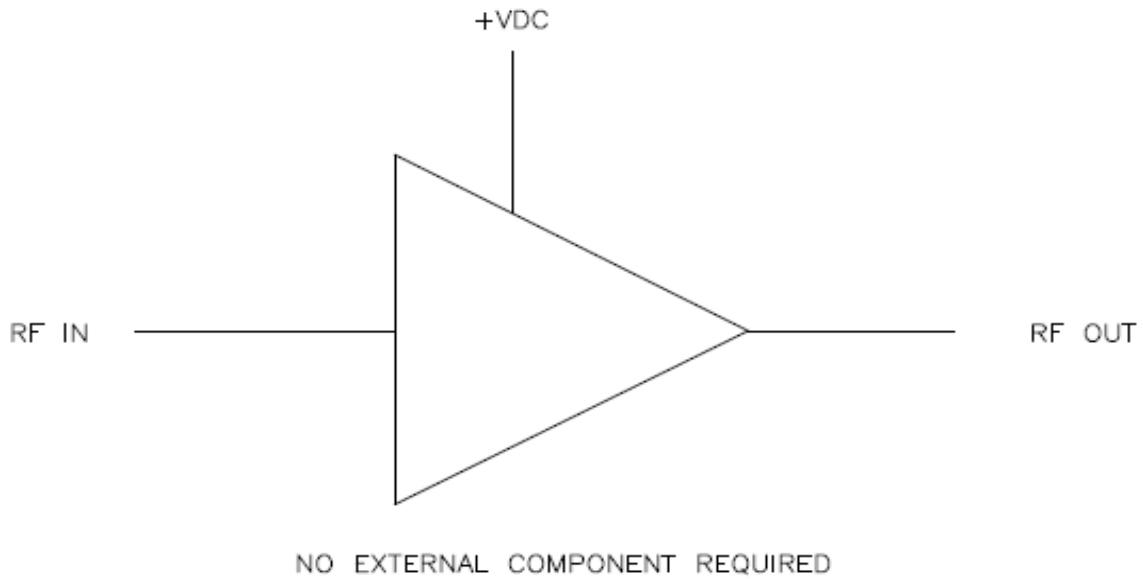


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FUNCTIONAL BLOCK DIAGRAM



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