

RF Amplifier

- * Operating Frequency : 2-88 MHz.
- * Gain : 19 dB.
- * Medium Output power : 29 dBm.
- * No external components required

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	2		88	MHz.
Gain	G	18	19		dB.
Gain Flatness	Δ G		±0.50	± 1.0	dB.
Gain variation verses Temp	G. V.		±0.50	± 1.0	
Noise Figure	N.F.		4.5	5	
Output Power	P 1dB	28	29		dBm.
Two Tone Intercept	OIP3/OIP2	43/80	45/90		dBm.
VSWR in/out	S11/S22		1.5:1	1.8:1	Ratio
Operating Voltage	Vdc		24		Volt
Operating Current	Id		220	240	mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	SMA Housing		
Cooling	None		
Monitor Connector	None		

PROTECTIONS

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

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	-15		55	°C
Storage Temperature	Tstg	- 55C		120°C	°C

3009 Old State Rd, Telford, PA 18969

Web: www.amplifiersolutions.com
 Email: sales@amplifiersolutions.com

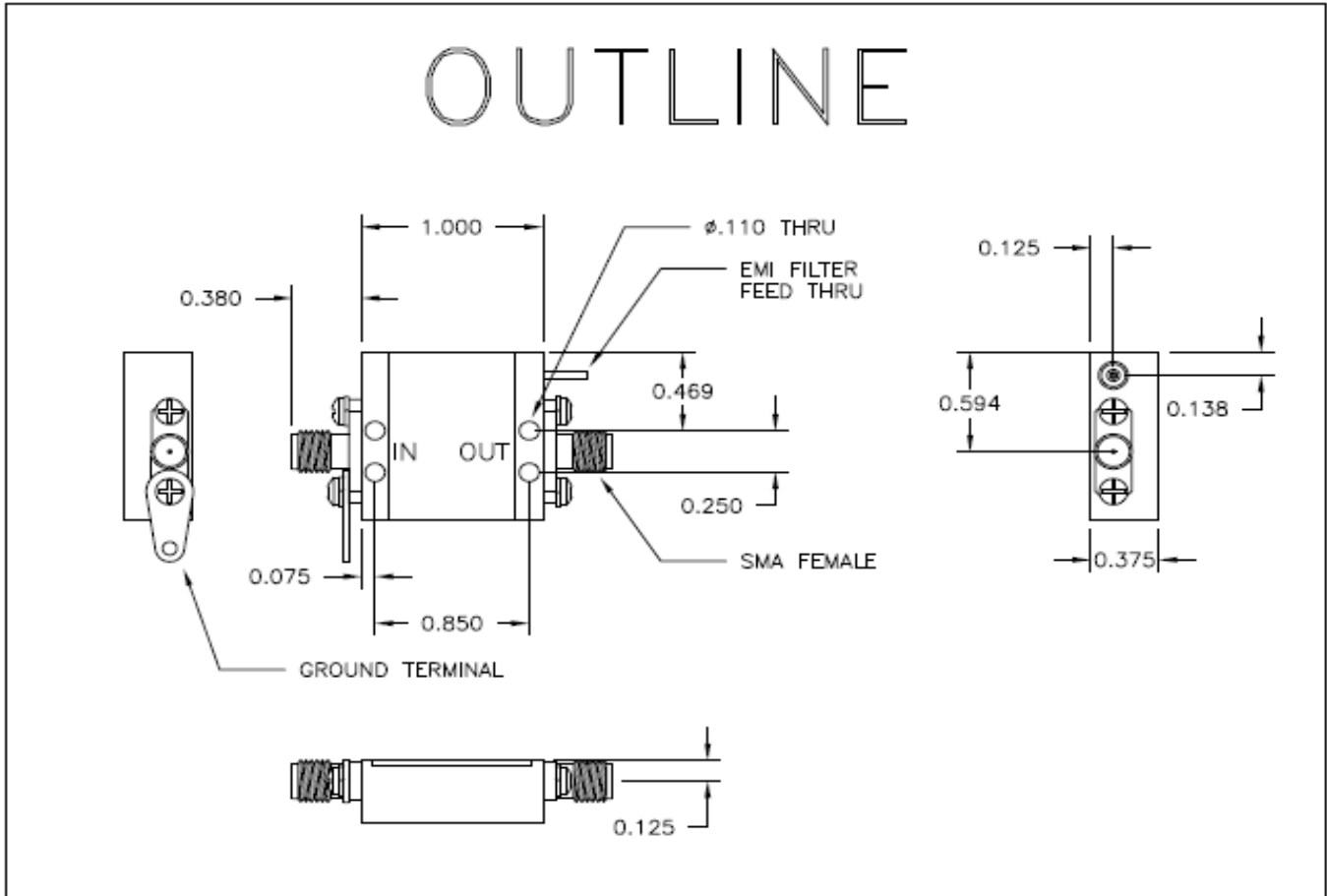
Tel: 215-799-2561
 Fax: 215-799-2563

DESCRIPTION: ASC1075C

FINAL ELECTRICAL TEST REQUIREMENTS

TEST Vdc +V	LIMITS Tc = 25 ^o C	ACTUAL DATA
Gain 2 MHz to 88 MHz	18.0 dB min	18.9 19.1
Gain Flatness 2 MHz to 88 MHz	±1.0 dB max	±0.1
Gain Variation vs. Temp. 2 MHz to 88 MHz	±1.0 dB max	
DC Current at +24 Vdc	240 mA max	235
Input VSWR 2 MHz to 88 MHz	1.8 : 1 max	1.07
Output VSWR 2 MHz to 88 MHz	1.8 : 1 max	1.21
Noise Figure 2 MHz to 88 MHz	5.0 db max	4.2
P 1.0 dB Compression 2, 50 & 88 MHz	28 dBm min	30.4
IP3 with Pout = +15 dBm each tone 1) F1/F2 = 3/4 MHz Fc = 2/5 MHz 2) F1/F2 = 51/52 MHz Fc = 50/53 MHz 3) F1/F2 = 86/87 MHz Fc = 85/88 MHz	43 dBm min	46.5
IP2 with Pout = +15 dBm each tone 1) F1-F2 = 88-86 MHz Fc = 2 MHz 2) F1-F2 = 82-32 MHz Fc = 50 MHz 3)F1+F2 = 50+38 MHz Fc = 88 MHz	80 dBm min	85.0
Stability Test For all frequency range Where S21 > 0dB	0 dB max	<0
Max Pin: No Change in NF with Pin @ +30dBm, 30MHz for 1 min	Accept / Reject	Accept

Outline Drawing



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FUNCTIONAL BLOCK DIAGRAM

