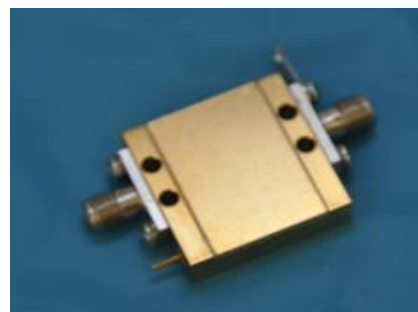


MMIC GAIN BLOCK

- * Wideband Operation : 200 - 3000 MHz.
- * Excellent Gain Flatness
- * High Intercept Point
- * Extremely Low Cost Gain Block
- * No external components required



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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	200		3000	MHz.
Gain	G	9	10		dB.
Gain Flatness	ΔG		± 0.4	± 0.75	dB.
Power Output	P1dB	21	22		dBm.
Return Loss in/out	S11/S22		1.6:1	2.0:1	Ratio
3rd Order Intermodulation (2 Tones @ 10 dBm)	IP3	36	40		dBm.
2nd Order Intermodulation (2 Tones @ 10 dBm)	IP2	52	60		dBm.
Noise Figure	NF	4.5	5.5		dB.
Operating Voltage	Vdc		12		Volts
Operating Current	Id		150		mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	1.0 x 1.0 x .375		inches
RF Connectors IN/OUT	SMA-F		
DC Connector	DB-9		

PROTECTIONS

	Max	
RF Input Power	20	dBm.
Reverse Polarity Protection		
Load VSWR	5:01	RATIO
Stability	Unconditional	

ENVIROMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max	Units
Operating Case Temperature	Tc	0		75	°C
Storage Temperature	Tstg	-55		150°C	°C

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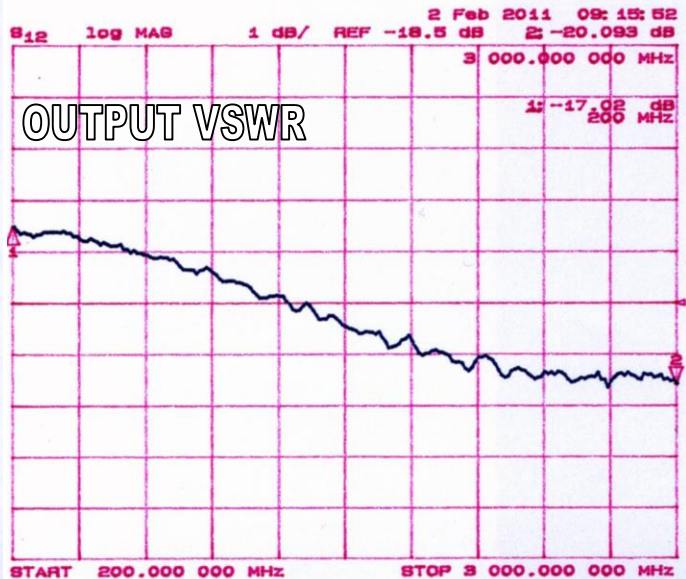
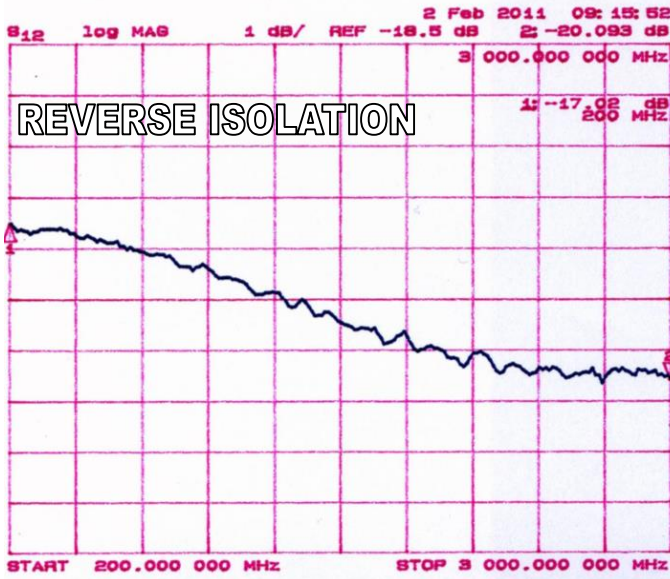
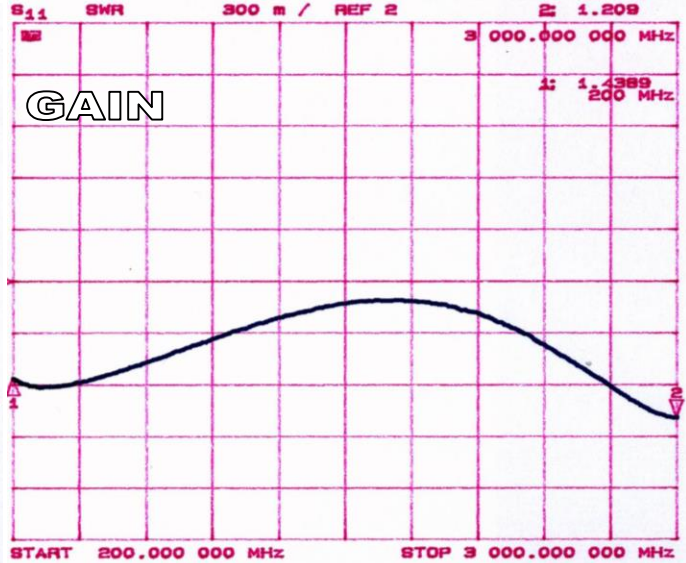
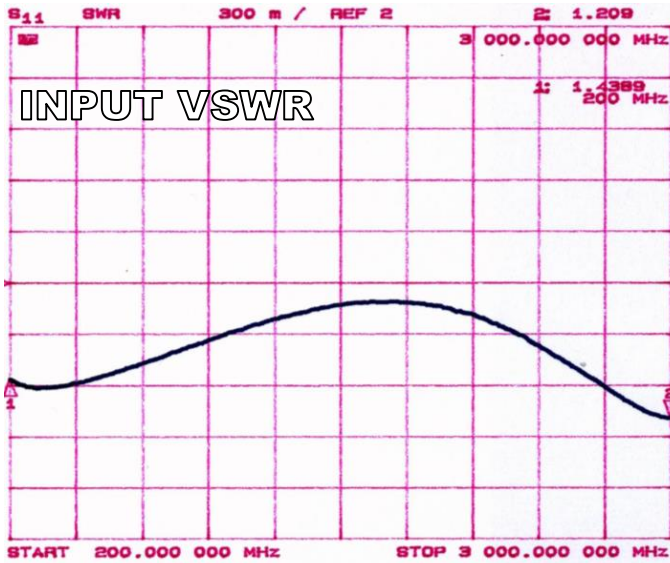
Web: www.amplifiersolutions.com
 Email: sales@amplifiersolutions.com

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

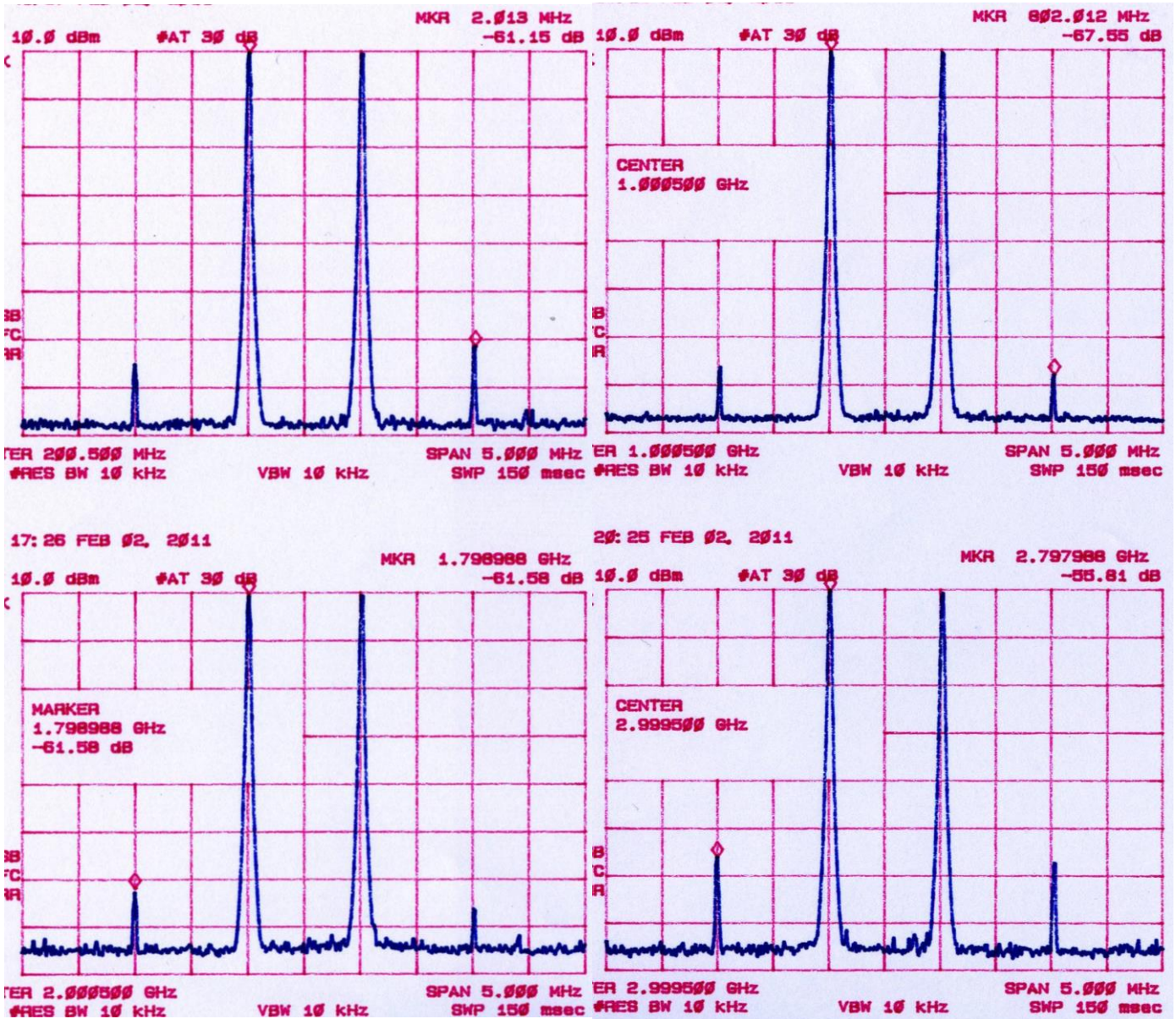
DESCRIPTION: ASC2243C

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

TEST Vdc +12V	LIMITS 0°C/+25°C/+75°C	ACTUAL DATA
Gain 200 MHz to 3000 MHz	9.0 dB min 10.0 dB Typ	11.1 11.7
Gain Flatness 200 MHz to 3000 MHz	± 0.75 dB max	±0.3
Spurious Response	Accept/Reject	AC
DC Current at +12 Vdc	250 mA Max	189
Input VSWR 200 MHz to 3000 MHz	2.0 : 1 max	1.59
Output VSWR 200 MHz to 3000 MHz	2.0 : 1 max	1.89
Noise Figure 200 MHz to 3000 MHz	5.5dB max	5.5
P 1.0 dB Compression 200 MHz to 3000 MHz	21.0 dBm min	>22
IP3 with Pout = 10.0 dBm each tone 1) F1/F2=200/201 MHz, Fc=199/202 MHz 2) F1/F2=1500/1501 MHz, Fc=1499/1502 MHz 3) F1/F2=2999/3000 MHz; Fc=2998/3001 MHz	36.0 dBm Min	38.0
IP2 with Pout = 10.0 dBm each tone 1) F1/F2=200/201 MHz, Fc=401 MHz 2) F1/F2=1500/1501 MHz, Fc=3001 MHz	52.0 dBm Min	66.0
Stability Test. For all frequency range where $ S_{21} > 0\text{dB}$	0 dB max	<0



3rd ORDER INTERMODULATION PRODUCTS



Power output @ 1dB Compression

200 Mhz	22.6 dBm
1000 Mhz	22.6 dBm
2000 Mhz	22.4 dBm
3000 Mhz	21.9 dBm

Noise Figure

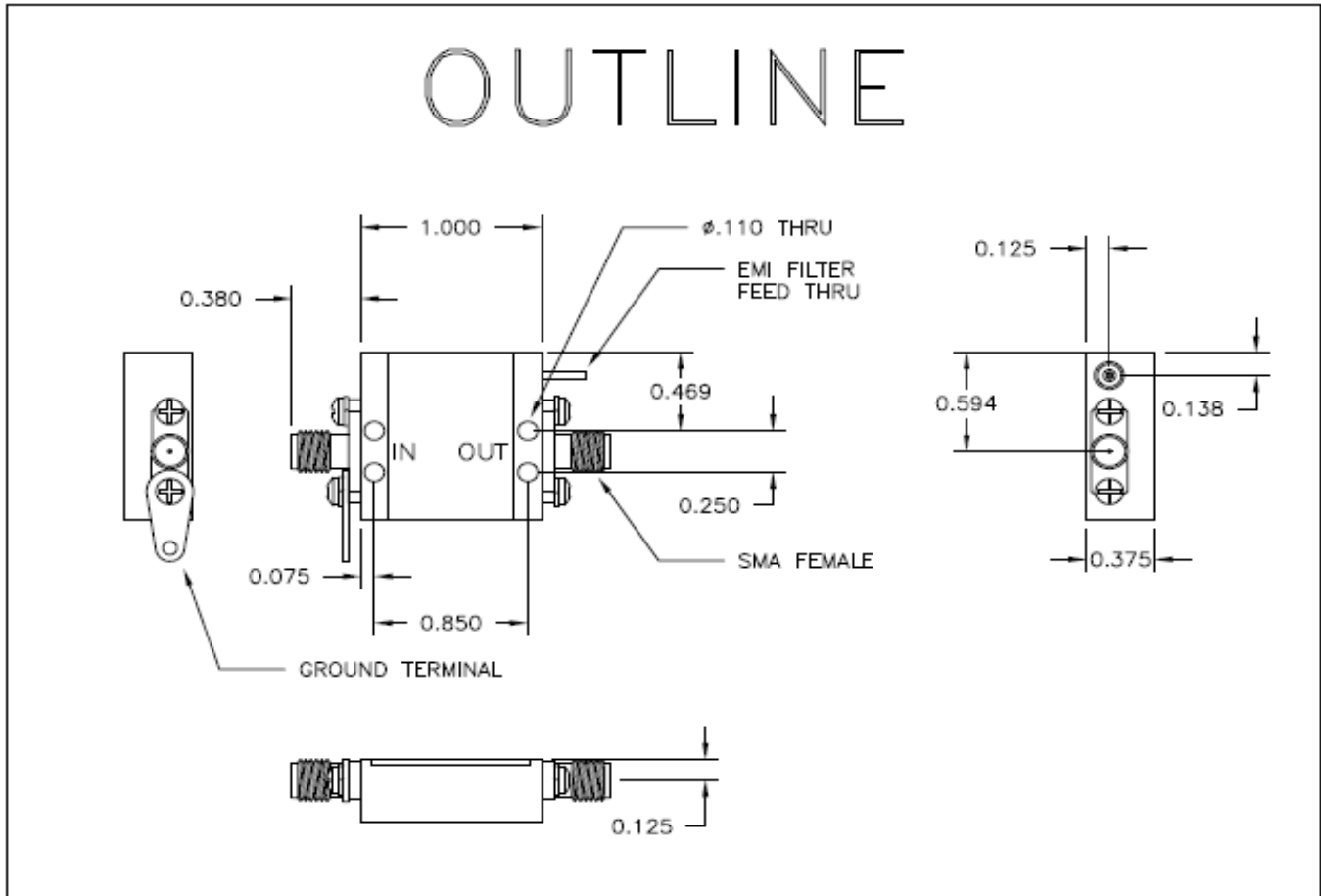
200 Mhz	4.0 dB
1000 Mhz	4.8 dB
2000 Mhz	4.8 dB
3000 Mhz	5.3 dB

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Outline Drawing

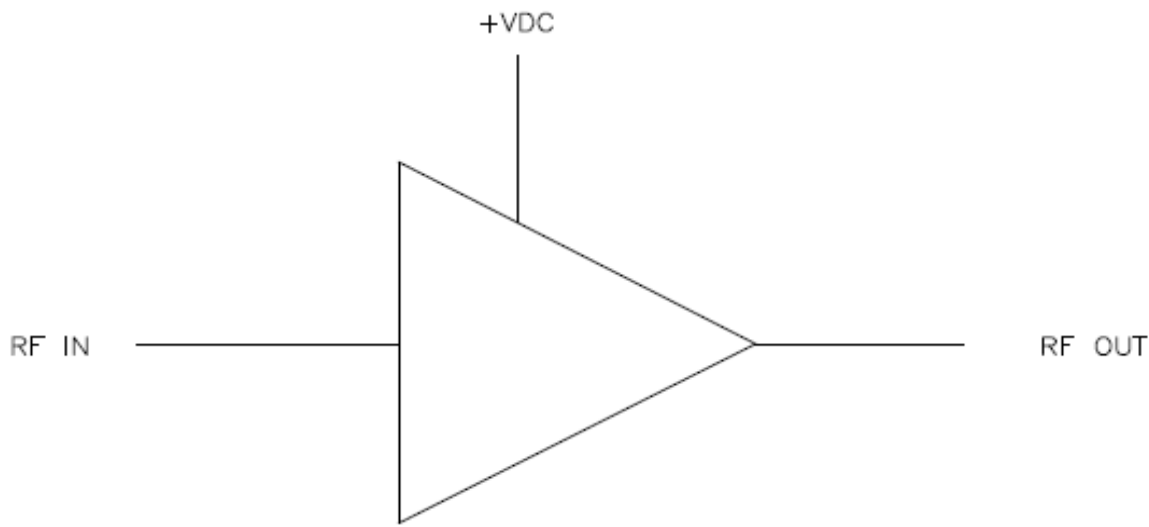


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FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED