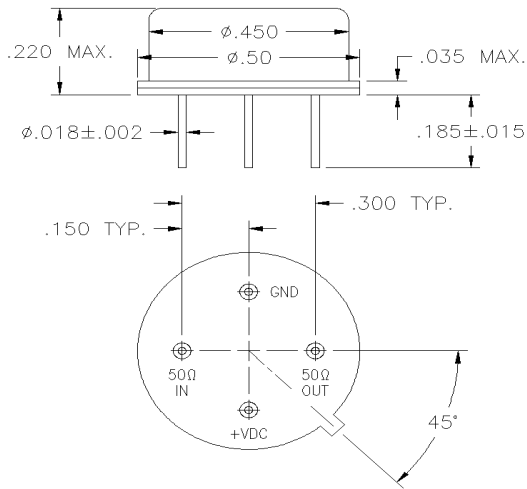


ASC608 5-500 MHz. Cascadable Amplifier



Features: (typical values)

- High Reverse Isolation 28.0 dB.
- Medium Noise Figure 4.5 dB.
- High Output Power +24.0 dBm.
- High Reliability
- Hermetic Package (Surface mount available)
- No external components required

Specifications (Referenced to 50 ohms)

Parameter	Typical Value	Min. Value	Max. Value	Units
Frequency		5	500	MHz.
Gain	13.5	12.0		dB.
Gain Flatness	±0.2		±1.0	dB.
Gain Var. over temp.	0.6			ΔdB.
Pout @ 1dB. Comp.	+24.0	+22.0		dBm.
Noise Figure	4.5		5.5	dB.
Reverse Isolation	28.0			dB.
IP ₃ /IP ₂ (two-tone)*	34/44	30/40		dBm.
HIP ₂ (2 nd harm.)	48			dBm.
VSWR In/Out	1.7:1		2.0:1	
Supply Req'd	+15/90		+15/100	v/mA.

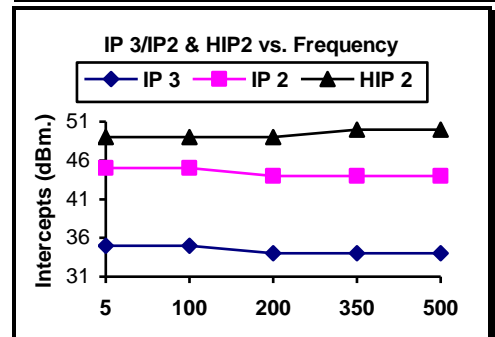
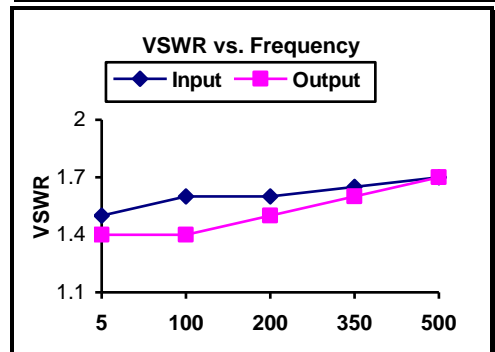
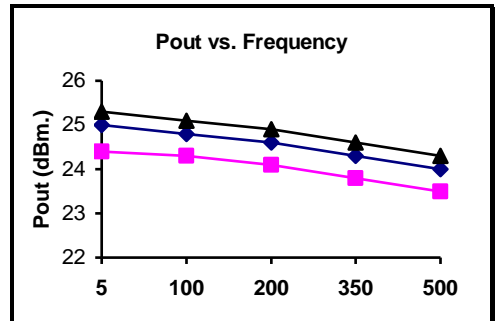
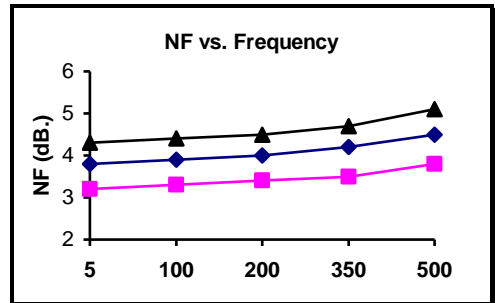
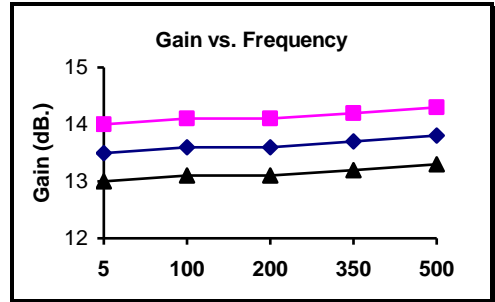
Min. and max. values are from -55°C to +85°C
 *IP₃ and IP₂ are in band output intercept points

Maximum Ratings

Storage Temperature -62°C to +125°C
 DC Voltage +17 volts
 RF Input Power +13.0 dBm.
 Case Temperature +95°C

Typical Performance Curves

- ■ -55°C - ◆ -+25°C - ▲ +85°C

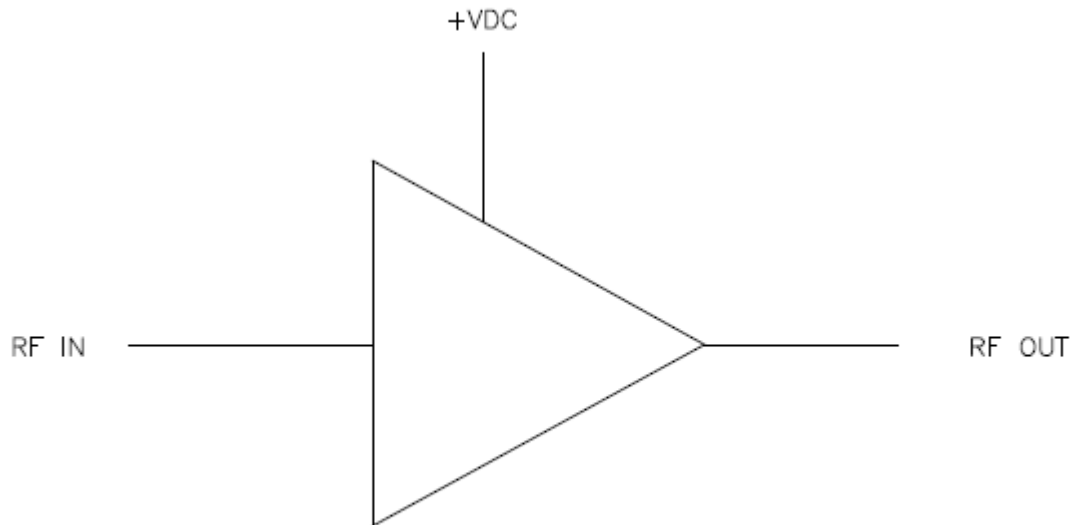


FINAL ELECTRICAL TEST REPORT

RECORD DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS -55°C/+25°C/+85°C	ACTUAL DATA
Gain: 5 to 500 MHz	12.0 dB min	12.2
Gain Flatness: 5 to 500 MHz	± 1.0 dB max	±0.25
Reverse Isolation: 5 to 500 MHz	28 dB typ	23
DC Current at +15 Vdc	100 mA max	99
Input VSWR: 5 to 500 MHz	2.0 : 1 max	1.8
Output VSWR: 5 to 500 MHz	2.0 : 1 max	1.6
Noise Figure: 5 to 500 MHz	5.5 dB max	4.6
Pout @ 1.0 dB Compression 10 to 500 MHz	22.0 dBm min	22.3
IP3 with Pout = +10.0 dBm each tone 1) F1/F2=6/7 MHz Fc=5/8MHz 2) F1/F2=251/252MHz Fc=250/253MHz 3) F1/F2=498/499MHz Fc=497/500MHz	30.0 dBm min	35.0
IP2 with Pout = +10.0 dBm each tone 1) F1-F2=(205-200)MHz Fc=5MHz 2) F1-F2=(480-230)MHz Fc=250 MHz 3) F1+F2=(495+5)MHz Fc=500 MHz	40.0 dBm min	49.0
Stability Test : For all frequencies Where $ S_{21} > 0\text{dB}$	0 dB max	<0
Gain Var Over Temp	0.6 dB PP Typ	

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED