

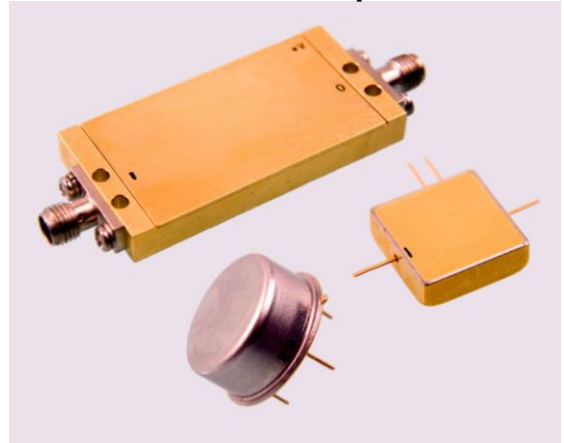
Features: (typical values)

- Low Noise Figure 4.5 dB.
- Medium Output Power +27.0 dBm.
- High IP3 +37 dBm.
- Gain 12 dB.
- No external components required

Maximum Ratings

- Storage Temperature -62°C to +125°C
- DC Voltage +12 volts
- Continuous RF Input Power +18.0 dBm.
- Short Term RF input Power +23dbm for 1min
- Peak RF Input Power +27dbm for 3usec
- Case Temperature +125°C

**20-3000 MHz
Cascade Amplifier**

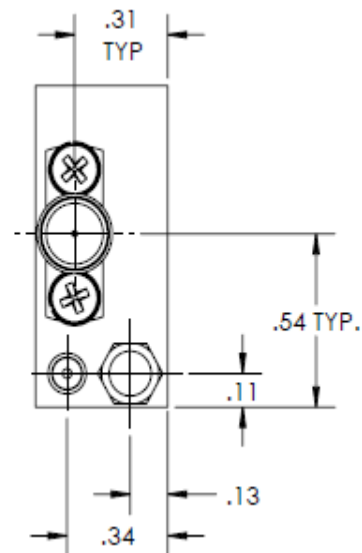
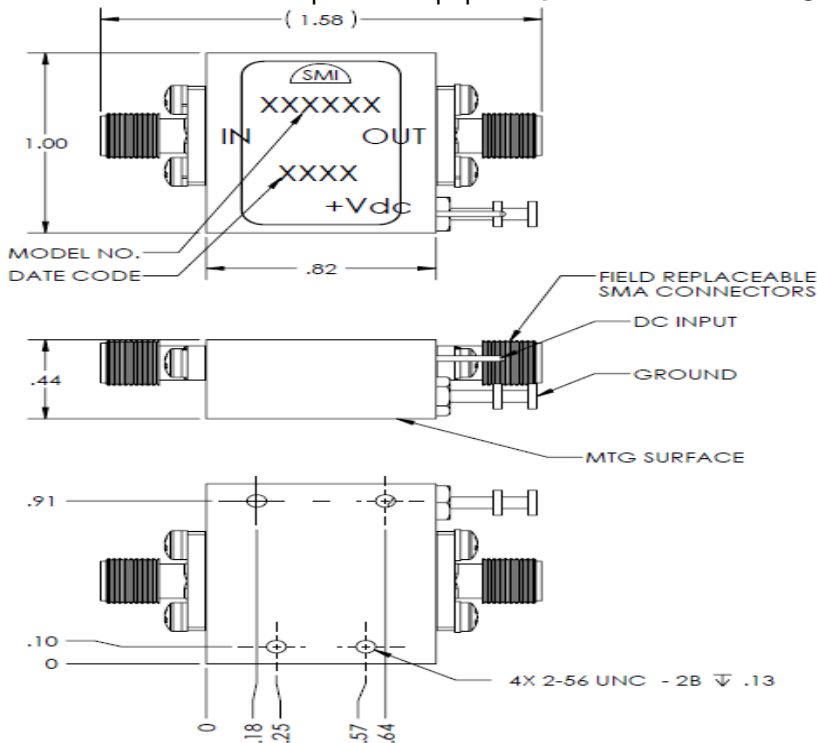


Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	3000	MHz.
Gain	12.0	11.5	13.5	dB.
Pout @ 1dB Comp	+27.0	+26		dBm.
Noise Figure From 50-3000MHz	4.5		5.0	dB.
Reverse Isolation	-20.0			dB.
IP ₃ (two-tone)*	+37.0	35		dBm.
IP ₂ (two-tone)	50.0	45		dBm
VSWR In/Out	1.8:1		2.0:1	
Supply Required	+12/350		+15/400	v/mA.

Min. and max. values are from 0°C to +55°C

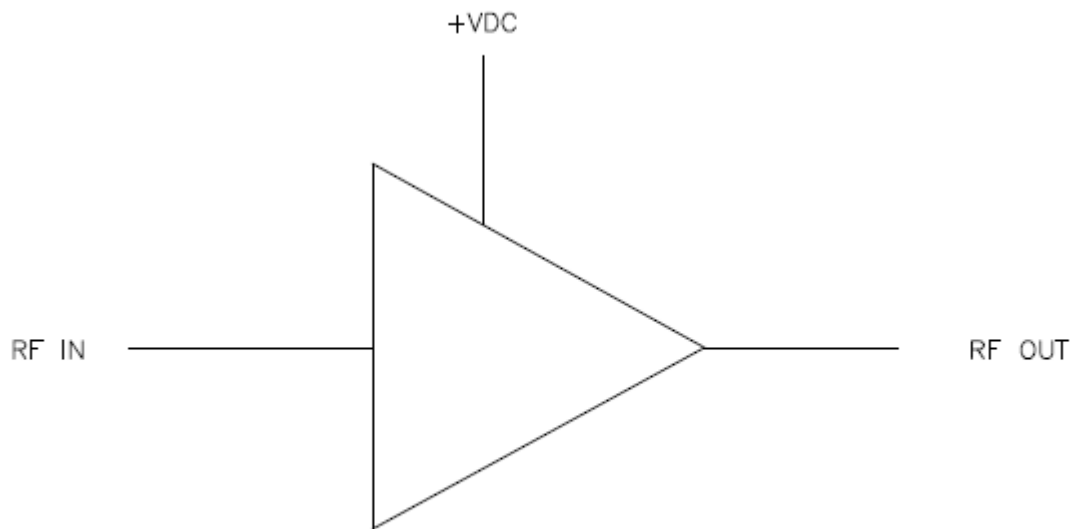
*IP₃ is an in band output intercept point @ +15 dBm. Per tone @1500 MHz @25C



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

TEST Vdc +12V	LIMITS 0°C/+25°C/+55°C	ACTUAL DATA
Gain Slope @30MHz	12.0 +/- 0.5dB	12.4
@3000Mhz	13.0 +/- 0.5dB	12.6
Spurious Response	Accept/Reject	AC
DC Current at +12 Vdc	400 mA MAX	231
Input VSWR 30 MHz to 3000 MHz	2.0 : 1 max	1.78
Output VSWR 30 MHz to 3000 MHz	2.0 : 1 max	2.08
Noise Figure 100 MHz to 3000 MHz	5.0 dB max	4.8
P 1.0 dB Compression 30 MHz to 3000 MHz	26 dBm min	27.0
IP3 with Pout = 15.0 dBm each tone 1) F1/F2=1500/1501 MHz, Fc=1499/1502 MHz	40.0 dBm Typ.	39.0
IP2 with Pout = 15.0 dBm each tone 1) F1/F2=1500/1501 MHz, Fc=3001 MHz	55.0 dBm Typ.	59.0
Stability Test. For all frequency range where S21 > 0dB	0 dB max	< 0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED