

RF Amplifier

- * Operating Frequency : 100 KHz. to 60 MHz.
- * IP3/IP2 : 43/70 dBm.
- * Gain : 15 dB.
- * No external components required



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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	0.1		60	MHz.
Gain	G	15	15.5	16	dB.
Gain Flatness	Δ G		±0.15	±0.20	dB.
Gain variation over temp	Δ G		±0.5		dB.
Noise Figure	N.F.		4.5	5	dB.
Power Output 1 db compressed	P 1 db	23	25		dBm.
Reverse Isolation	R I		30		dB.
Two Tone Intercept	OIP3/OIP2		43/70		dBm.
VSWR in/out	S11/S22		1.3:1	1.5:1	Ratio
Operating Voltage	Vdc		12		Volt
Operating Current	Id		160	170	mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	TO-8 Fig 3		
RF Connectors IN/OUT			
DC Connector			
Cooling	None		
Monitor Connector	None		

PROTECTIONS

RF Input Power	20 dBm.	Max	
Reverse Polarity Protection	N/A		
Load VSWR	Infinite up to 1W		
Stability	100% Tested		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	- 55C		85°C	°C
Storage Temperature	Tstg	- 55C		120°C	°C

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DESCRIPTION: ASC419

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

TEST Vdc +12V	LIMITS 0°C/+25°C/+70°C	ACTUAL DATA
Operating Frequency	0.1 MHz min 60.0 MHz max	
Gain	15.0 dB min 16.0 dB max	15.5 15.7
Gain Flatness	± 0.20 dB max	±0.1
Gain variation over temp.	±0.5 dB typ	/
Noise Figure	5.0 dB max	3.7
Power Output 1 dB compression	23.0 dB min	24.8
Reverse Isolation	30.0 dB typ	20.0
IP3 with Pout = + 15.0 dBm each tone 1) F1/F2=101/102 KHz , Fc=100/103 KHz 2) F1/F2=11/12 MHz, Fc=10/13 MHz 3) F1/F2=58/59 MHz, Fc=57/60 MHz	43 dBm typ	43.0
IP2 with Pout = +15.0 dBm each tone 1) F1-F2= 60 - 59.9 MHz, Fc = 100 KHz 2) F1-F2= 60 -50 MHz, Fc= 10 MHz 3) F1+F2= 50 + 10, Fc = 60 MHz	70 dBm typ	79.0
VSWR in/out	1.5:1 max	1.32
Operating Voltage @ 12V	Accept	Accept
Operating Current	170 ma max	160

Outline Drawing

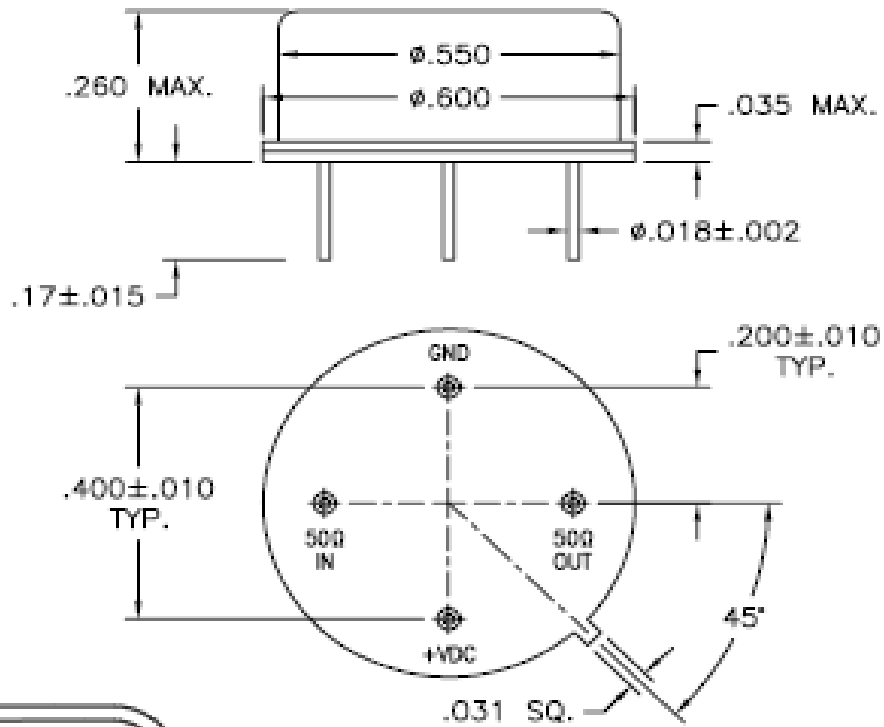


FIGURE 3

FUNCTIONAL BLOCK DIAGRAM

