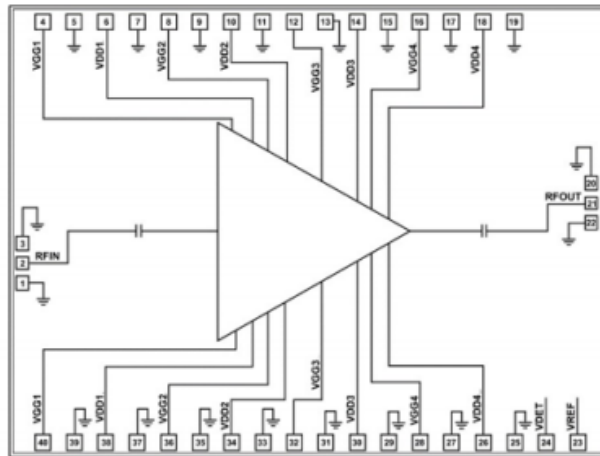


**Features**

- Frequency: 71-76GHz
- Gain: 23dB (typ.)
- P1dB: 28dBm (typ.)
- Psat: 29dBm
- OIP3: 34dBm (typ.)
- Input standing wave: 15dB (typ.)
- Output standing wave: 15dB(typ.)
- Power Supply : 4.0V @800mA
- Die Size:4.0 x 3.0 x 0.05 mm

**Typical Applications**

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

**Functional Block Diagram**

**Electrical Specifications**

(T = -40°C~ +85°C)

Item	Unit	Test Condition	min	typ	max
Frequency Range	GHz		71.00	/	76.00
Max.gain	dB	/	20.00	23.00	26.00
Gain Tuning Range	dB	@slew>10mA/dB Keep it monotonous	15.00	/	/
OIP3(At gain=20dB)(Pout=20.5dBm/single tone)	dBm	tone separation: 10M~2G	33.50	/	/
OIP3(At gain=15dB)(Pout=10dBm/single tone)	dBm	/	29.00	/	/
OIP3(At gain=10dB)(Pout=5dBm/single tone)	dBm	/	24.50	/	/
OIP3(At gain=5dB)(Pout=0dBm/single tone)	dBm	/	20.00	/	/
Output P1dB(At gain=20dB)	dBm	/	25.50	/	/



Output Psat(At gain=20dB)	dBm	/	27.50	/	/
Output P1dB (At gain=15dB)	dBm	/	21.00	/	/
Output Psat (At gain=15dB)	dBm	/	23.00	/	/
Output P1dB (At gain=10dB)	dBm	/	16.50	/	/
Output Psat (At gain=10dB)	dBm	/	18.50	/	/
Output P1dB (At gain=5dB)	dBm	/	12.00	/	/
Output Psat (At gain=5dB)	dBm	/	14.00	/	/
NF(At gain=20dB)	dB	/	/	/	10.00
NF(At gain=15dB)	dB	/	/	/	14.50
NF(At gain=10dB)	dB	/	/	/	19.00
NF(At gain=5dB)	dB	/	/	/	23.50
Gain Flatness	dB	71GHz~76GHz	/	1.00	2.00
Input Return Loss	dB	/	/	-15.00	-10.00
Output Return Loss	dB	/	/	-15.00	-10.00
Isolation between PA input port and output port	dB	/	50.00	/	/
Detector Dynamic Range	dBm	(-6 <= Pout<= 28 dBm)	-6.00	/	28.00
Detector Vref-Vdet Sensitivity	mV/dB	(-2 <= Pout<= 28 dBm)	5.00	/	/
	mV/dB	(-6 <= Pout<= -2 dBm)	4.00	/	/
Detector Vref-Vdet max. voltage	V	@ 28dBm output	/	/	4.00
Detector Vref-Vdet min. voltage	mV	@ -6dBm output	10.00	/	/
PA_VD1/PA_VD2/PA_VD3/PA_VD4	V	5% accuracy	3.80	4.00	4.20
PA_VG1/PA_VG2/PA_VG3	V	Adjust the grid voltage to ensure PA_VD1, PA_VD2, PA_VD3 current sum is 400mA, and further adjustment of the gate voltage to reduce the current provides 15dB dynamics;	-2.00	/	0.00
PA_VG4	V	Adjust the gate pressure to ensure that PA_VD4 current is 400mA;	-2.00	/	0.00
DC power Dissipation	W	Pout=25dBm	/	3.20	4.00
maximum Junction Temperature (Meets million hour life)	°C	/	190		



★Operating Temperature Range	°C	/	-40	/	85
★Storage Temperature Range	°C	/	-65	/	150
$\theta_{jc}$	°C/W	/	17.2		
★Lifetime at max. Tj	Years	≥10			
VD	V	/	/	/	4.5
VG	V	/	-3	/	0.2
Peak Reflow Temperature	°C	/	260		
★ESD Sensitivity , HBM	V				≥250
ESD Sensitivity ,CDM	V				≥250