



Power RF Amplifiers

Power = 10.0 Watts

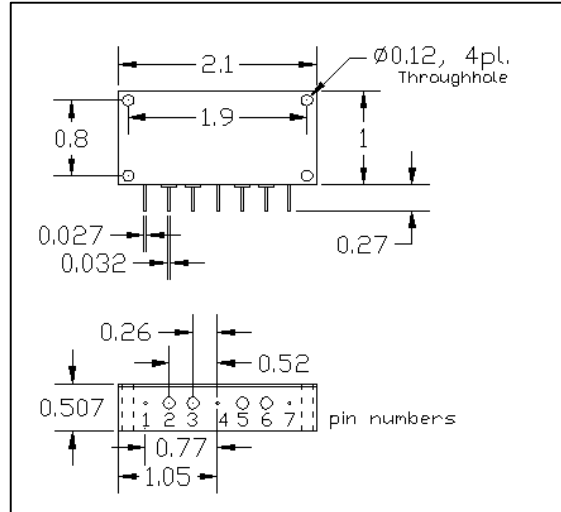
Bandwidth = 30 to 88 Mhz

Gain = 25.0 dB Vdd =12.0 Volts

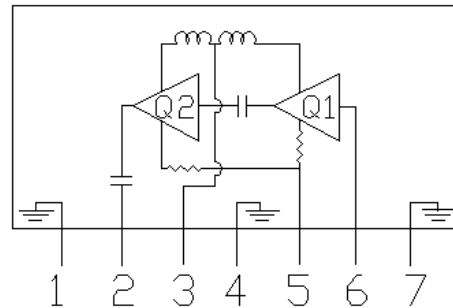
50 ohms Input/Output Impedance

Description

The MCDK21 is a 10 Watt, 2 stage high gain amplifier module covering a bandwidth of 30-88 Mhz. This compact module design is suitable for military applications in a rugged environment. A VAGC pin is provided to control the output power of the module.



Pin 1=Ground Pin 4=Ground
 Pin 2=RF out Pin 5=VAGC
 Pin 3=Vdd Pin 6=RF in
 Pin 7=Ground



Absolute Maximum Ratings (T=25 °C)

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	17.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	7.00	V
Input Power	Pin	0.05	W
Output Power	Pout	10.0	W
Operating Case Temp.	Tc	-20 to +85	°C
Storage Temperature	Tstg	-30 to +100	°C

Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms. Vdd= 12.0 Volts)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30		88	Mhz	50 ohm load
Outut Power	Po	10.0			Watts	Idq = 1.20 Amps
Power Gain	PG	25.0			dB	@ Pout = 10.0 Watts
Total Efficiency	η	30			%	@ Pout = 10.0 Watts
2nd Harmonics	dso		-35.00		dBc	@ Pout = 10.0 W. Freq = 59 Mhz
Intermod - 2 tone	Ip3				dBm	Freq = 59 Mhz; AvePwr= W
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles

MCDK21

