



Power RF Amplifiers

Power = 15.0 Watts

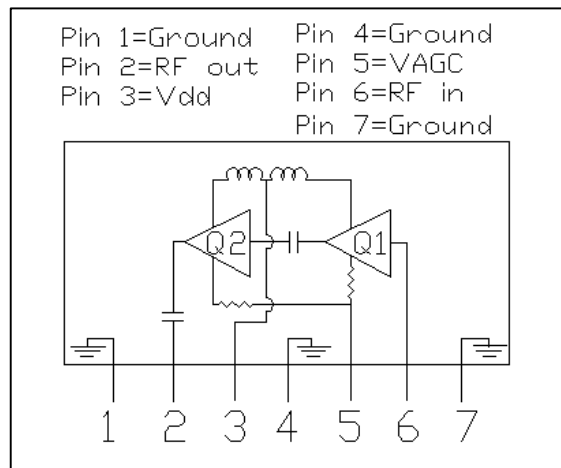
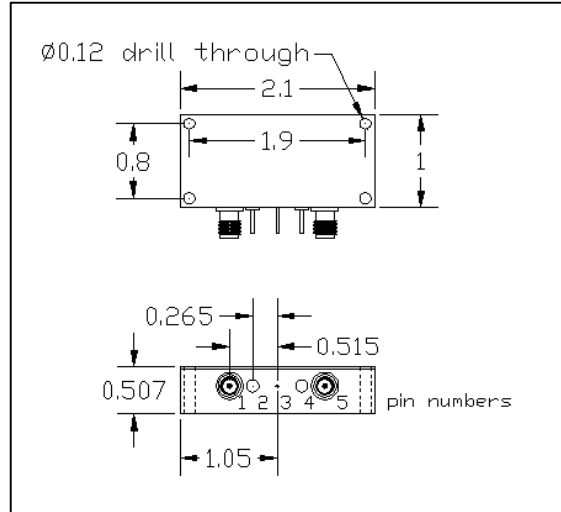
Bandwidth = 30 to 512 Mhz

Gain = 25.0 dB Vdd =28.0 Volts

50 ohms Input/Output Impedance

Description

The MGDQ01 is a 15 Watt, 2 stage high gain amplifier covering a bandwidth of 30-512 Mhz using SMA connectors for RF in and out. This module is suitable for military applications in a rugged environment. An ALC pin is provided to control the output power of the module. The MGDQ01 may be used as the driver stage for the MBDQ01 module.



Absolute Maximum Ratings (T=25 °C)

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	8.00	V
Input Power	Pin	0.05	W
Output Power	Pout	20.0	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= 28.0 Volts)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30		512	Mhz	50 ohm load
Outut Power	Po	15.0			Watts	Idq = 2.00 Amps
Power Gain	PG	25.0			dB	@ Pout = 15.0 Watts
Total Efficiency	η	15			%	@ Pout = 15.0 Watts
2nd Harmonics	dso		-20.00		dBc	@ Pout = 15.0 W, Freq = 270 Mhz
Intermod - 2 tone	Ip3				dBm	Freq = 270 Mhz; AvePwr= W
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles

MGDQ01

