



RF Power Module

Power = 50.0 Watts

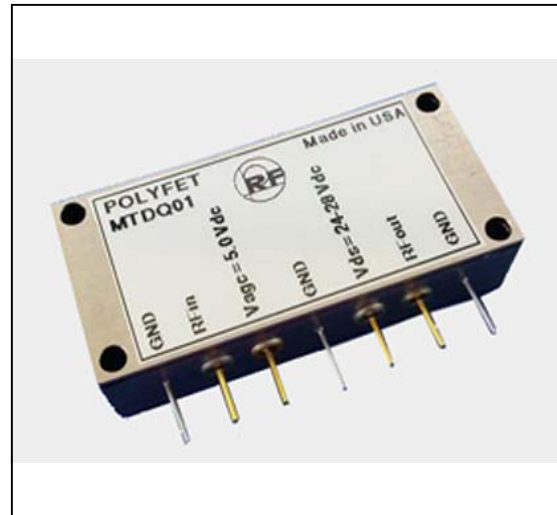
Bandwidth = 20.0 to 520 Mhz

Gain = 13.0 dB Vdd =24.0 Volts

50 ohms Input/Output Impedance

Description

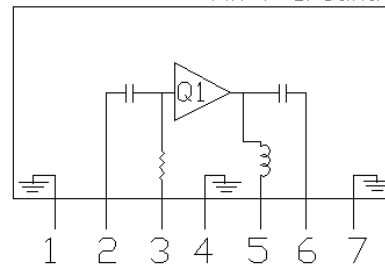
The MTDQ01 is a 50 Watt, single stage amplifier module covering a bandwidth of 20-520 Mhz. This compact module design is suitable for military applications in a rugged environment. An ALC pin out is provided to control the output power, gain and blanking of the module.



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	5.5	V
AGC Current	VAGCI	6.00	mA
Input Power	Pin	10.000	W
Output Power	Pout	65.0	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-55 to +100	°C

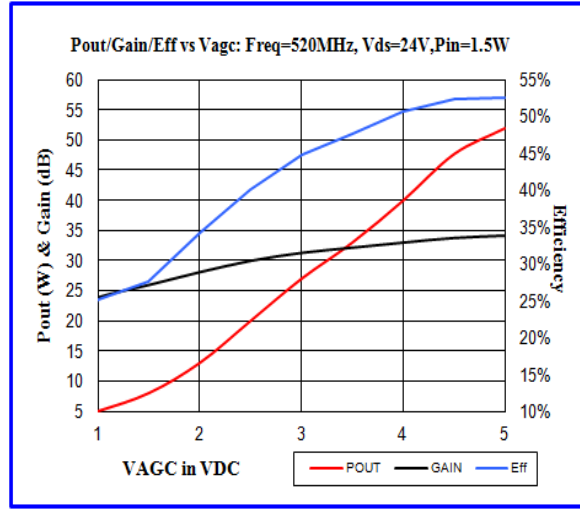
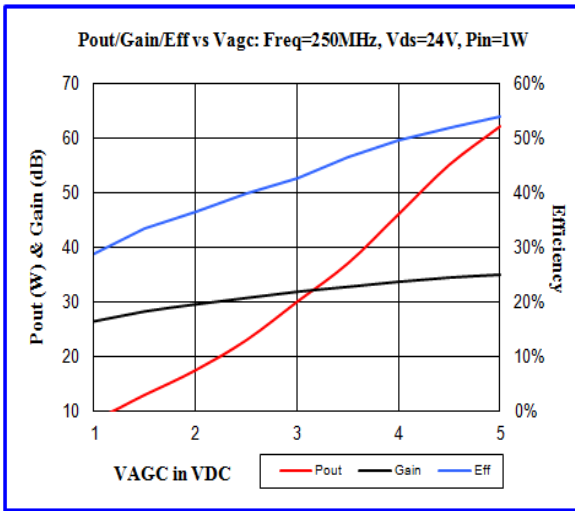
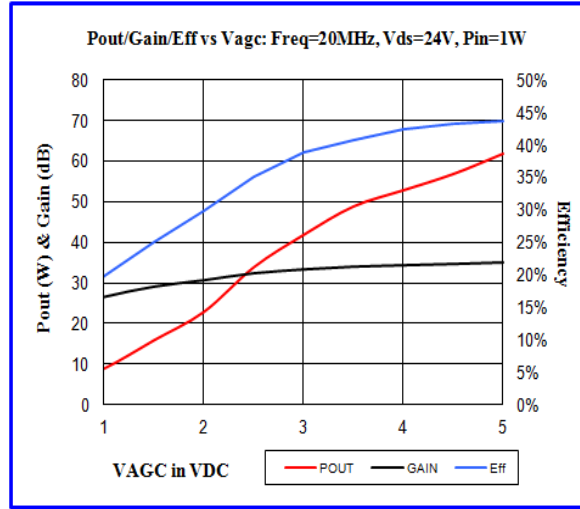
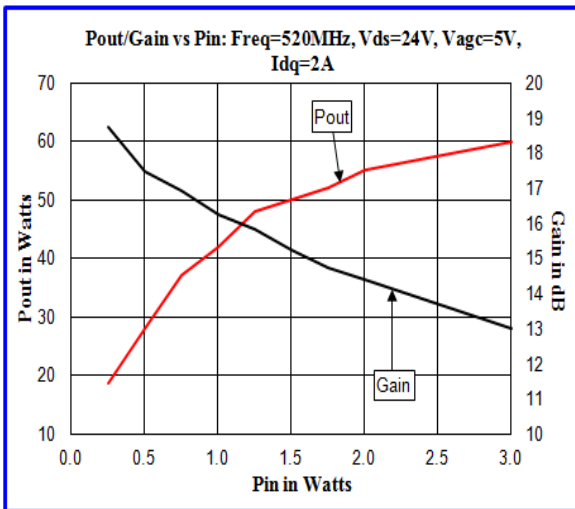
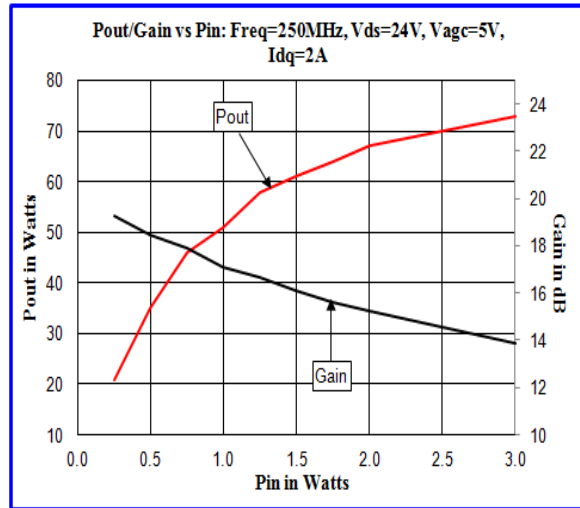
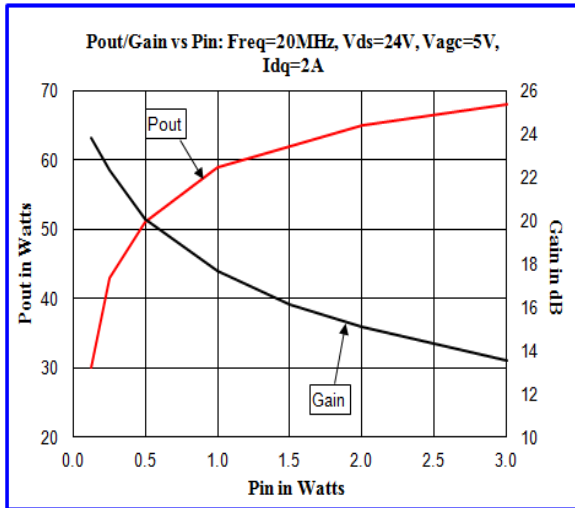
Pin 1=Ground Pin 4=Ground
 Pin 2=RF in Pin 5=Vdd
 Pin 3=VAGC Pin 6=RF out
 Pin 7=Ground



Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms, Vdd = 24.0 Volts, Idq = 2.0 Amps)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	20.0		520	Mhz	50 ohm load
Output Power	Po	50.0			Watts	Pin = 34.0 dbm Vagc = 5.00 V
Power Gain	PG	13.0			dB	Pout = 50.0 Watts Vagc = 5.00 V
Total Efficiency	η		40		%	Pout = 50.0 Watts
2nd Harmonics	dso	-25.00	-35.00		dBc	Pout = 50.0 Watts @ Mhz
Intermod - 2 tone	Im3		-15.00		dBc	AvePwr= 25.0Watts
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles Pout = 50.0 W
Vagc Voltage	VAGC			5.00	V	Pin = 34.0 dBm, Pout = 50.0 W
Pulse Response Time	Pr			50.0	uS	Pulse source: Vagc

MTDQ01



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