



**RF Power Module**

**Power = 40.0 Watts**

**Bandwidth = 20.0 to 520 Mhz**

**Gain = 40.0 dB    Vdd =28.0 Volts**

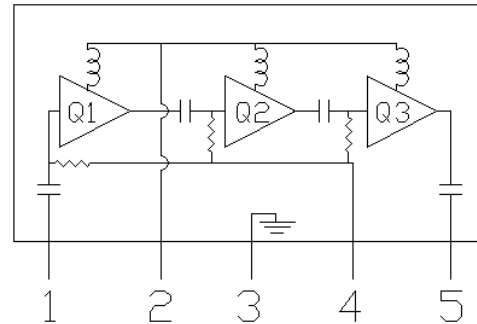
**50 ohms Input/Output Impedance**

**Description**

The MLCQ04 is a 40 Watt, high gain amplifier module covering a bandwidth of 20-520 Mhz. This compact module design is suitable for military applications in a rugged environment. The Vagc pin is provided to control blanking of the module.



Pin 1= RF in    Pin 4=Vagc  
 Pin 2= Vds    Pin 5= RF out  
 Pin 3= Gnd



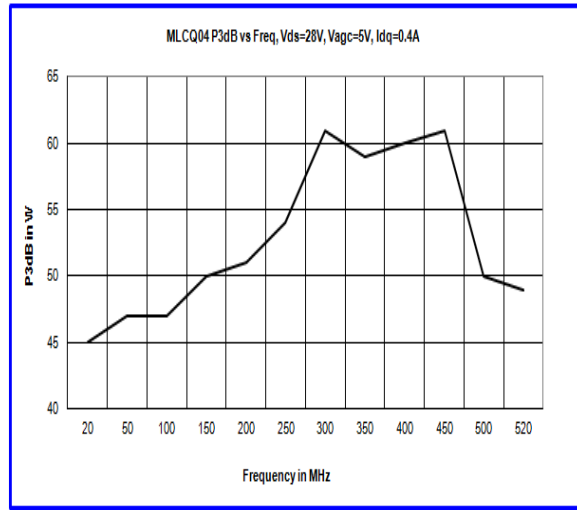
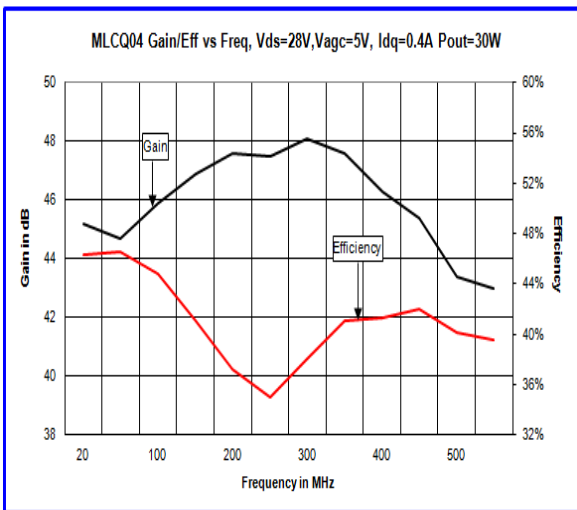
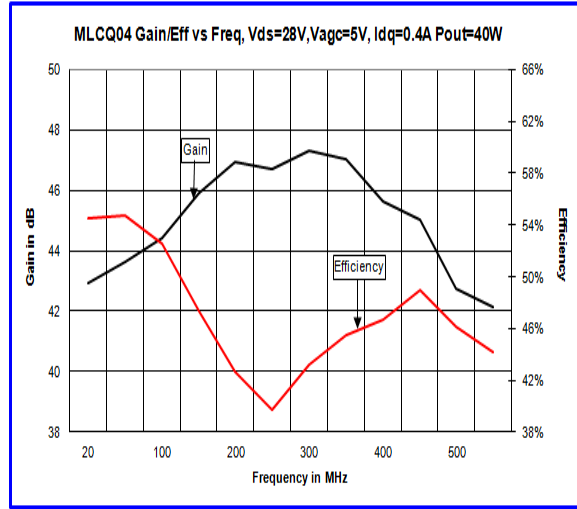
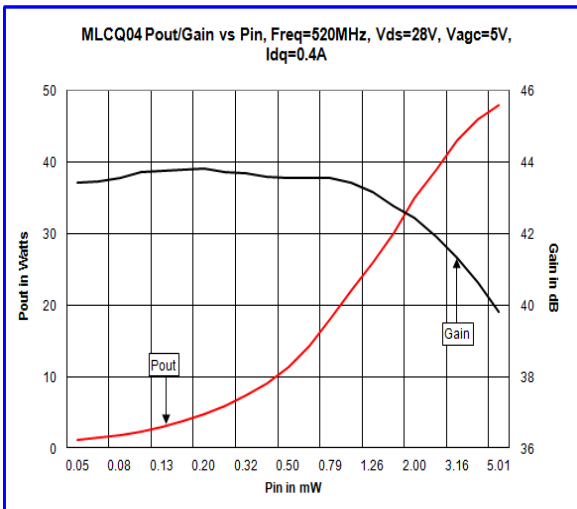
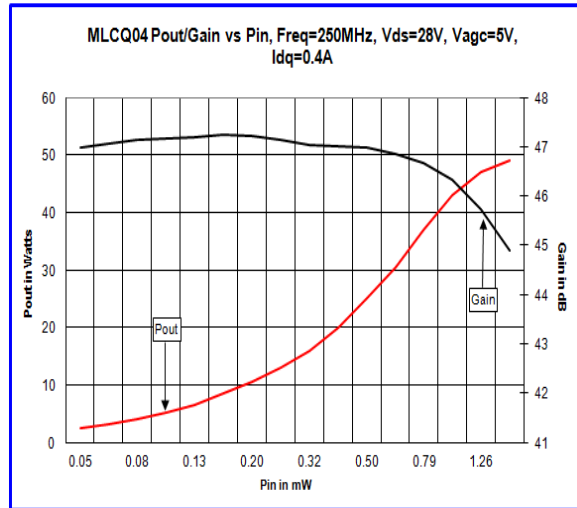
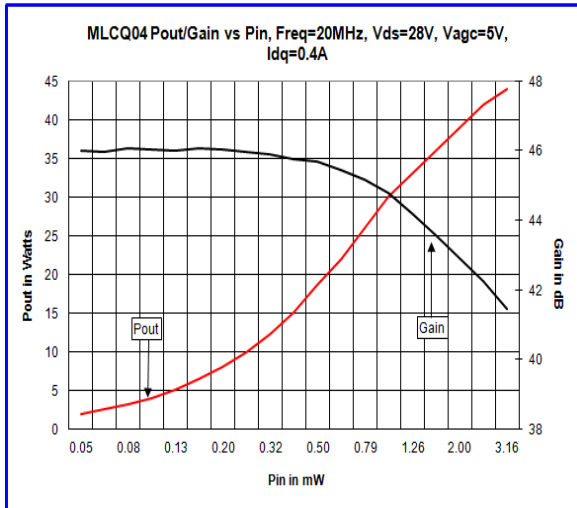
***Absolute Maximum Ratings (T=25 °C)***

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	5.0	V
AGC Current	VAGCI	40.00	mA
Input Power	Pin	0.005	W
Output Power	Pout	45.0	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-55 to +100	°C

***Electrical Characteristics: ( T=25 °C Zs=Zl=50 ohms, Vdd = 28.0 Volts, Idq = 0.4 Amps )***

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	20.0		520	Mhz	50 ohm load
Output Power	Po	40.0			Watts	Pin = 6.0 dbm Vagc = 5.00 V
Power Gain	PG	40.0			dB	Pout = 40.0 Watts Vagc = 5.00 V
Total Efficiency	$\eta$		45		%	Pout = 40.0 Watts
2nd Harmonics	dso		-20.00		dBc	Pout = 40.0 Watts @ Mhz
Intermod - 2 tone	Im3		-15.00		dBc	AvePwr= 20.0Watts
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles Pout = 40.0 W
Vagc Voltage	VAGC			5.00	V	Pin = 6.0 dBm, Pout = 40.0 W
Pulse Response Time	Pr			5.0	uS	Pulse source: RFin

# MLCQ04



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