



RF Power Module

Power = 150.0 Watts

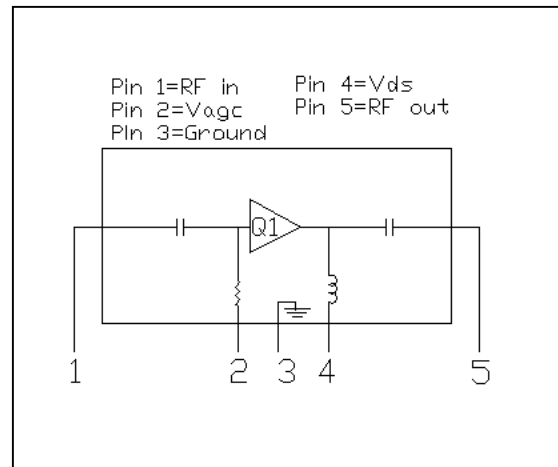
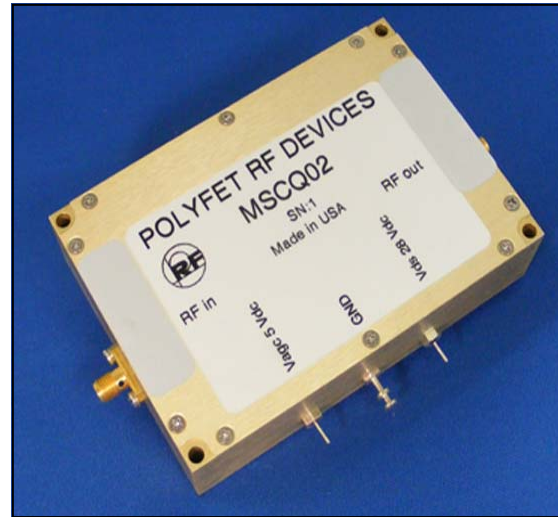
Bandwidth = 30.0 to 512 Mhz

Gain = 17.0 dB Vdd = 28.0 Volts

50 ohms Input/Output Impedance

Description

The MSCQ02 is a 150 Watt, single stage amplifier module covering a bandwidth of 30-512 Mhz. This compact module design is suitable for military applications in a rugged environment. An ALC pin is provided to control the output power, gain and blanking of the module.



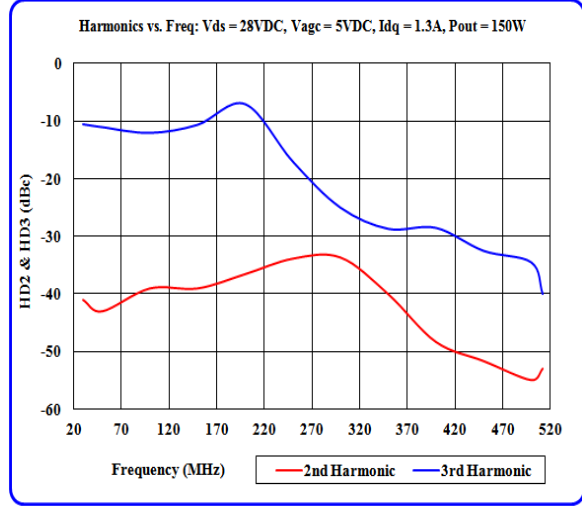
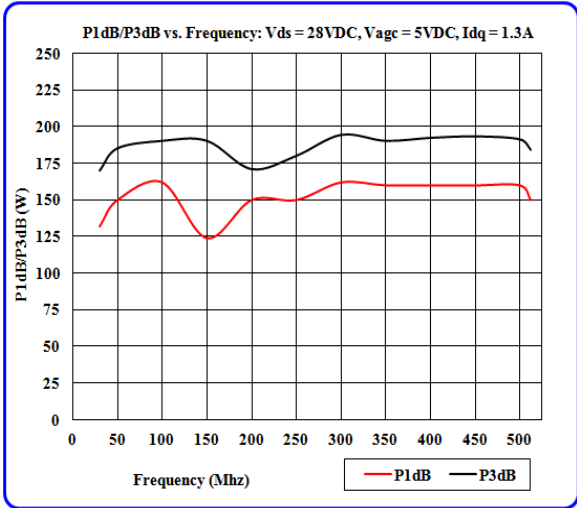
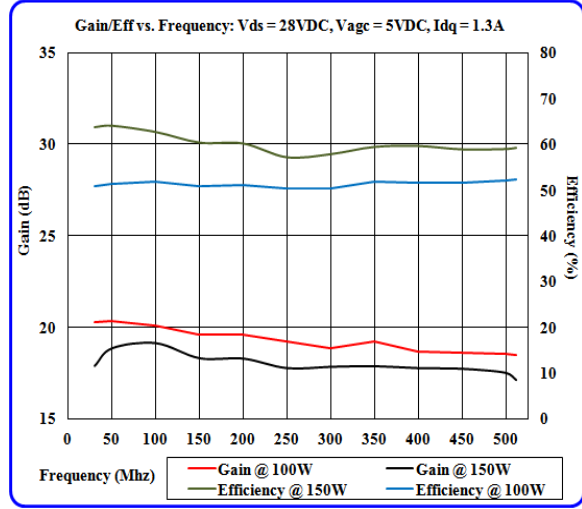
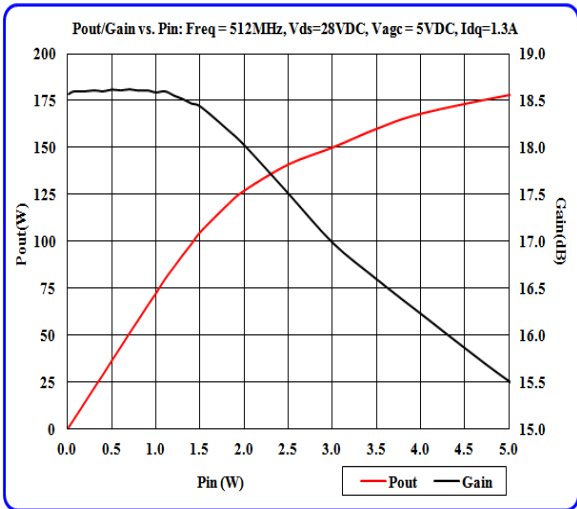
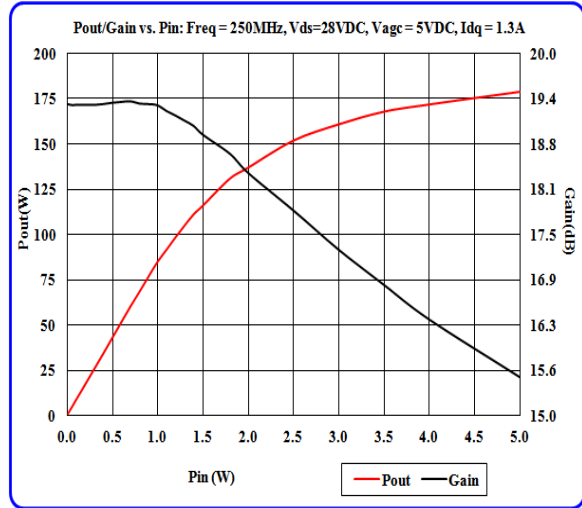
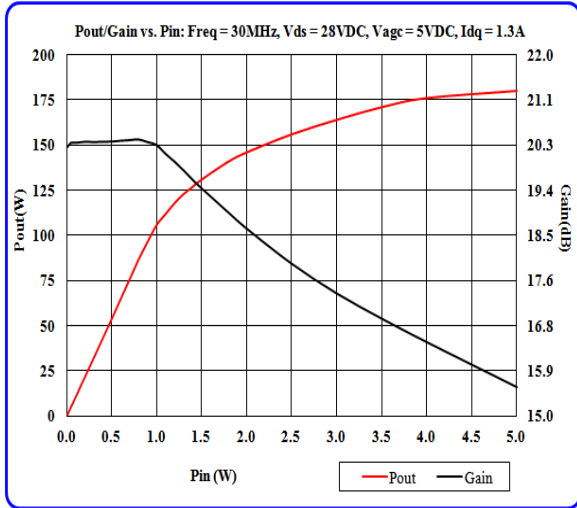
Absolute Maximum Ratings (T=25 °C)

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	5.3	V
AGC Current	VAGCI	6.00	mA
Input Power	Pin	7.000	W
Output Power	Pout	200.0	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-55 to +100	°C

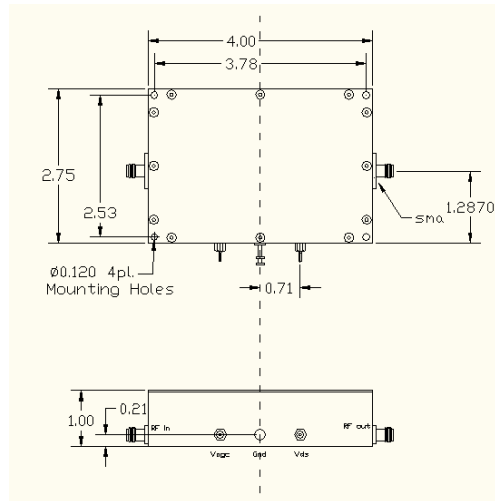
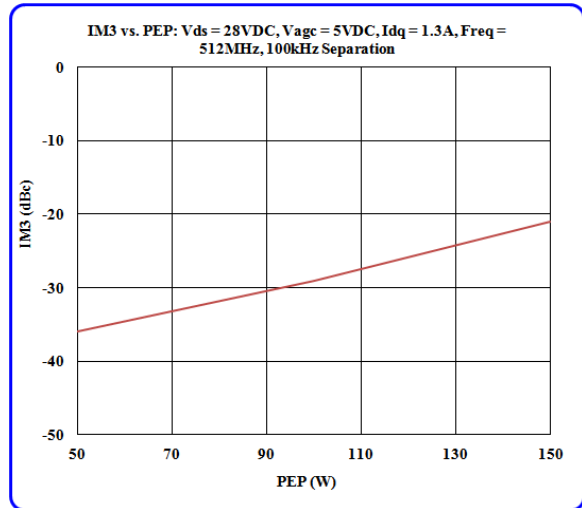
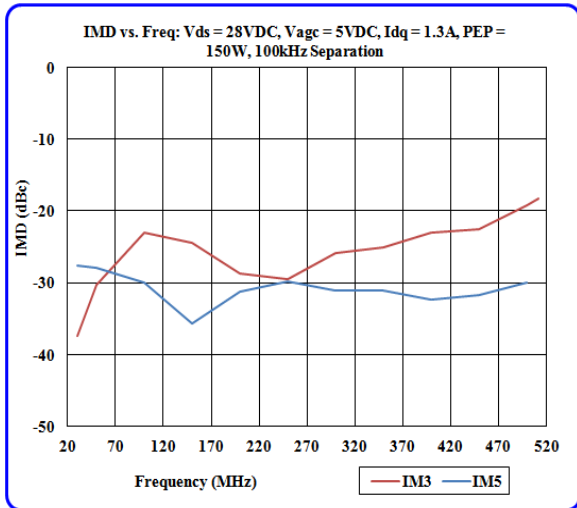
Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms, Vdd = 28.0 Volts, Idq = 1.3 Amps)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30.0		512	Mhz	50 ohm load
Output Power	Po		150.0		Watts	Pin = 35.0 dbm Vagc = 5.00 V
Power Gain	PG		17.0		dB	Pout = 150.0 Watts Vagc = 5.00 V
Total Efficiency	η		60		%	Pout = 150.0 Watts
2nd Harmonics	dso		-35.00		dBc	Pout = 150.0 Watts @ 30.0 Mhz
Intermod - 2 tone	Im3		-25.00		dBc	AvePwr= 75.0 Watts
Load Mismatch Tolerance	VSWR	20:1			Relative	All Phase Angles Pout = 150.0 W
Vagc Voltage	VAGC			5.00	V	Pin = 35.0 dBm, Pout = 150.0 W
Pulse Response Time	Pr			1.0	uS	Pulse source: RFin

MSCQ02



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POLYFET RF DEVICES

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