polyfet rf devices

MCCQ21

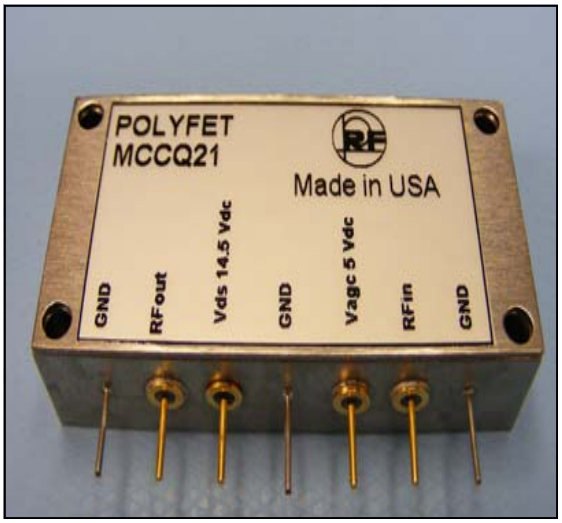
RF Power Module

Power = 10.0 Watts

Bandwidth = 20 to 520 Mhz

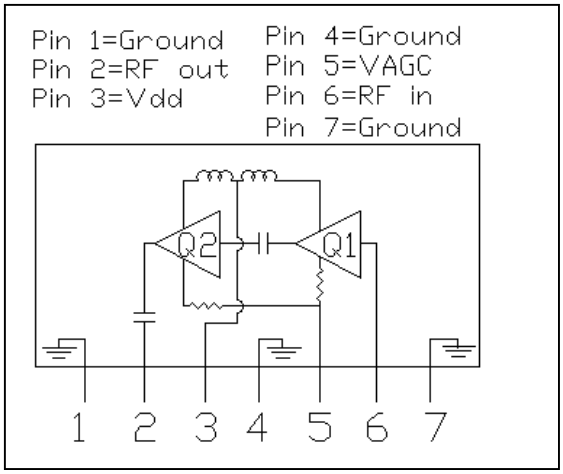
Gain = 25.0 dB Vdd = 14.5 Volts

50 ohms Input/Output Impedance



Description

The MCCQ21 is a 10 Watt, 14.5V Vdd, 2 stage high gain 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 ^{o}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*	5.00	*mA*
Input Power	*Pin*	0.050	*mW*
Output Power	*Pout*	15.0	*W*
Operating Case Temp.	*Tc*	-40 to +85	^{o}C
Storage Temperature	*Tstg*	-55 to +100	^{o}C

Electrical Characteristics: (T=25 ^{o}C Zs=Zl=50 ohms, Vdd = 14.5 Volts, Idq = 1.0 Amps)

Parameter	*Symbol*	*Min*	*Typical*	*Max*	*Unit*	*Test Conditions*
Frequency Range	*BW*	20		520	*Mhz*	*50 ohm load*
Outut Power	*Po*	10.0			*Watts*	*Pin =* 15.0 *dbm* *Vagc =* 5.00 *V*
Power Gain	*PG*	25.0			*dB*	*Pout =* 10.0 *Watts* *Vagc =* 5.00 *V*
Total Efficiency	η		25		*%*	*Pout =* 10.0 *Watts*
2nd Harmonics	*dso*	-25.00	-35.00		*dBc*	*Pout =* 10.0 *Watts @* *Mhz*
Intermod - 2 tone	*Im3*		-15.00		*dBc*	*AvePwr=* 5.0 *Watts*
Load Mismatch Tolerance	*VSWR*	10:1			*Relative*	*All Phase Angles* *Pout =* 10.0 *W*
Vagc Voltage	*VAGC*			5.00	*V*	*Pin =* 15.0 *dBm, Pout =* 10.0 *W*
Pulse Responese Time	*Pr*			1000.0	*uS*	*Pulse source*: Vagc

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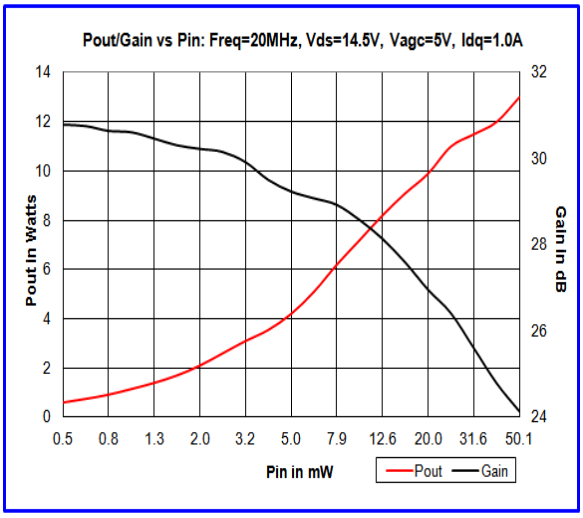
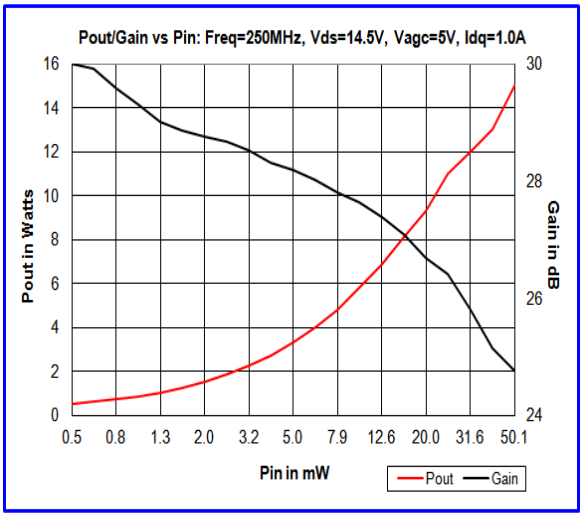
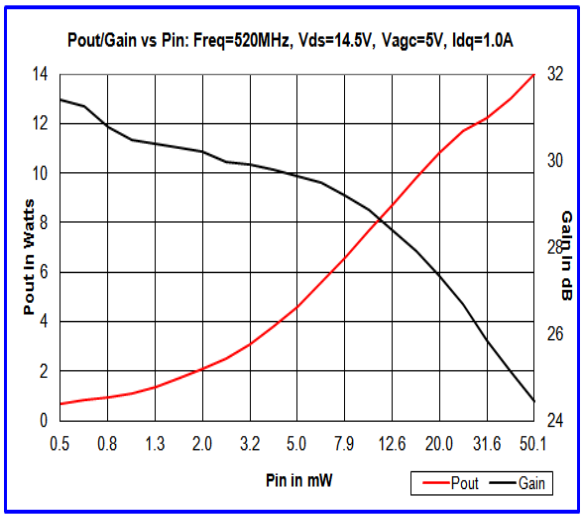
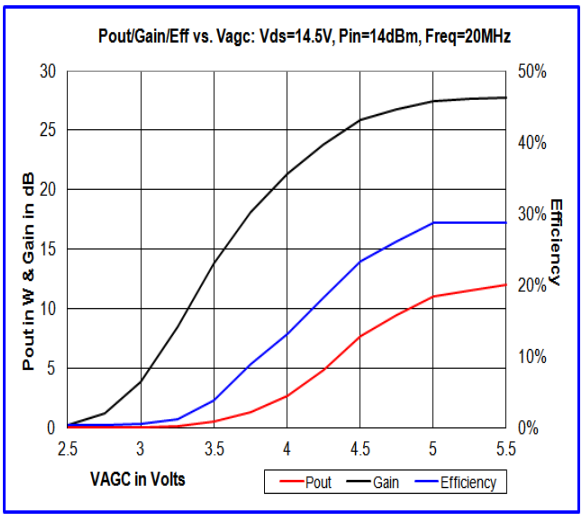
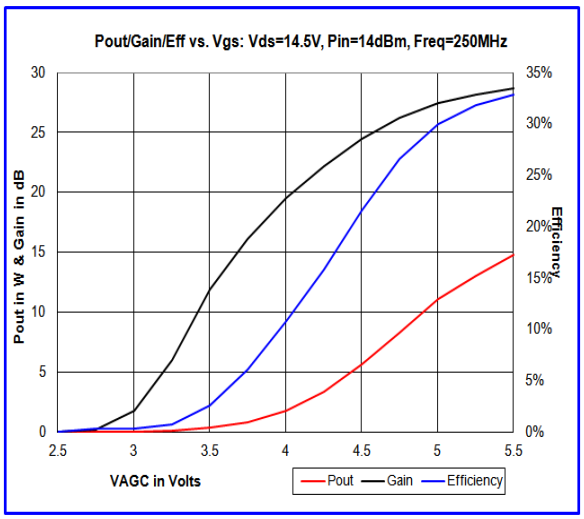
MCCQ21

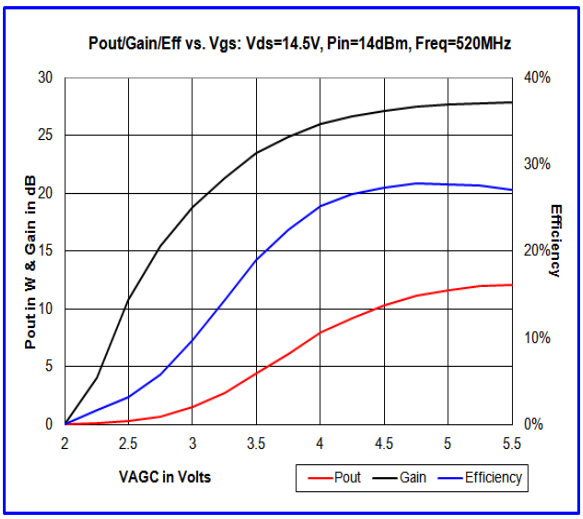












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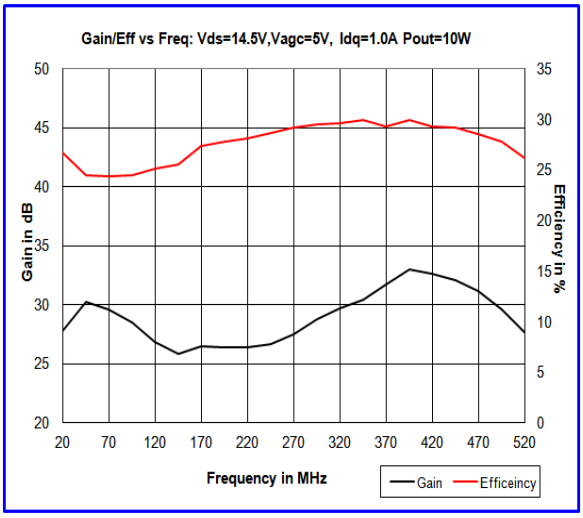

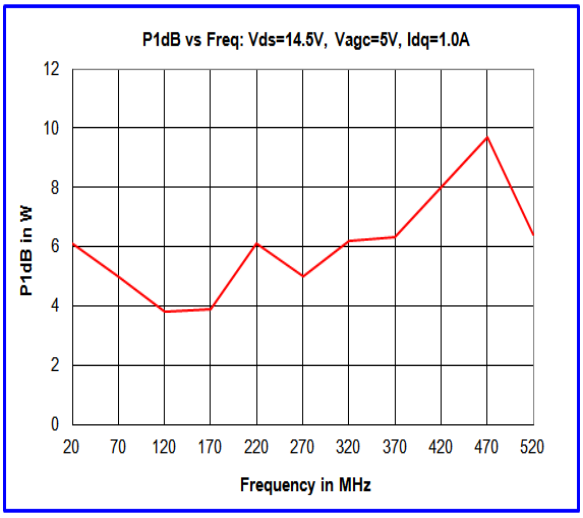

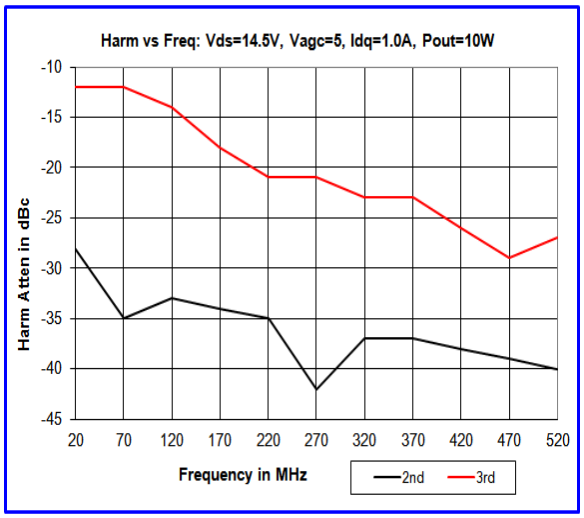

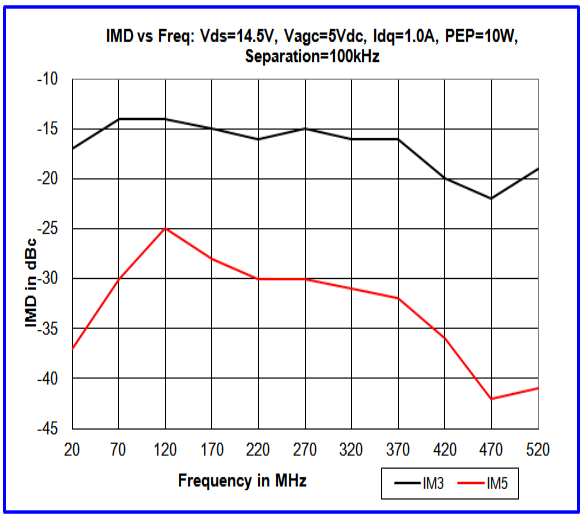

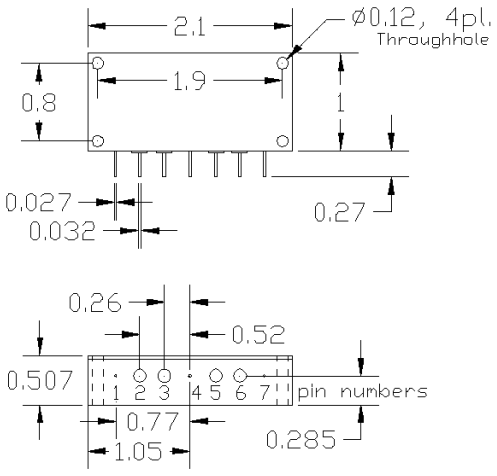

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