polyfet rf devices

MGDK21

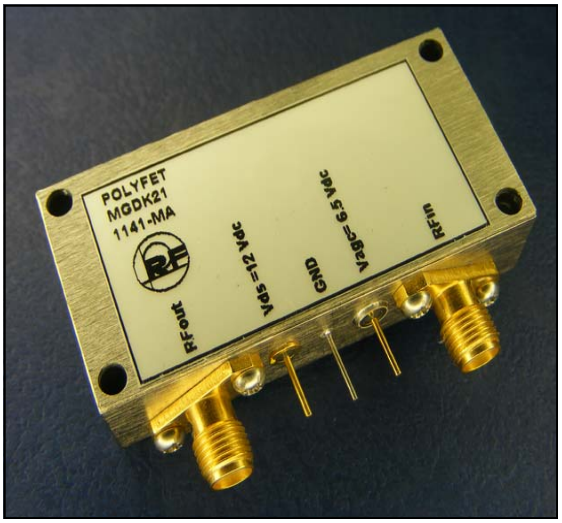
RF Power Module

Power = 10.0 Watts

Bandwidth = 30 to 88 Mhz

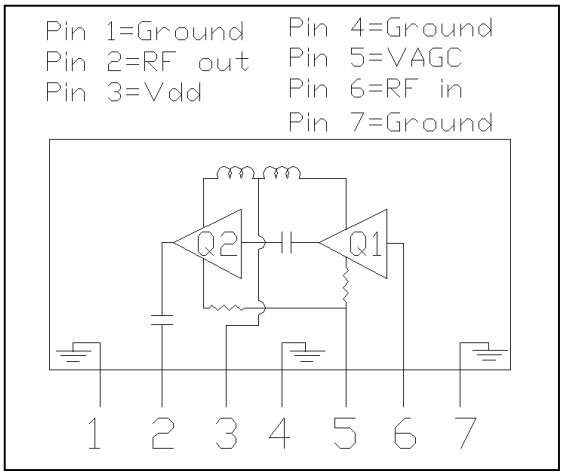
Gain = 30.0 dB Vdd = 12.0 Volts

50 ohms Input/Output Impedance



Description

The MGDK21 is a 10 Watt, 2 stage high gain amplifier covering a bandwidth of 30-88 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, gain and blanking of the module.



Absolute Maximum Ratings (T=25 °C)

Parameter	*Symbol*	*Value*	*Unit*
DC supply Voltage 1	*VDD1*	17.0	*V*
DC supply Voltage 2	*VDD2*		*V*
AGC Voltage	*VAGC*	7.0	*V*
AGC Current	*VAGCI*	5.00	*mA*
Input Power	*Pin*	0.040	*W*
Output Power	*Pout*	15.0	*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 = 12.0 Volts, Idq = 1.2 Amps)

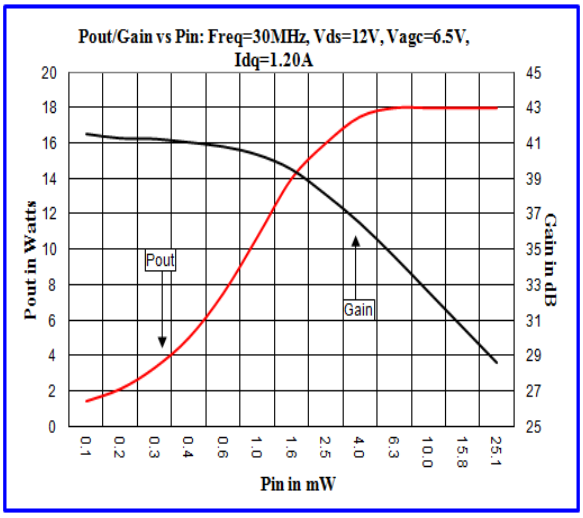
Parameter	*Symbol*	*Min*	*Typical*	*Max*	*Unit*	*Test Conditions*
Frequency Range	*BW*	30		88	*Mhz*	*50 ohm load*
Outut Power	*Po*	10.0			*Watts*	*Pin =* 10.0 *dbm* *Vagc =* 6.5 *V*
Power Gain	*PG*	30.0			*dB*	*Pout =* 10.0 *Watts* *Vagc =* 6.5 *V*
Total Efficiency	η		40		*%*	*Pout =* 10.0 *Watts*
2nd Harmonics	*dso*		-35.00		*dBc*	*Pout =* 10.0 *Watts @ Mhz*
Intermod - 2 tone	*Im3*		-20.00		*dBc*	*AvePwr=* 5.0 *Watts*
Load Mismatch Tolerance	*VSWR*	10:1			*Relative*	*All Phase Angles Pout =* 10.0 *Watts*
Vagc Voltage	*VAGC*			6.5	*V*	*Pin =* 10.0 *dBm, Pout =* 10.0 *W*
Pulse Responese Time	*Pr*				*uS*	*Pulse source:*

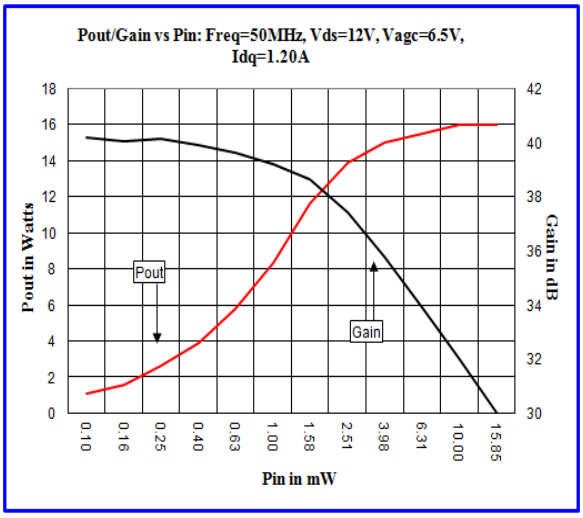
POLYFET RF DEVICES

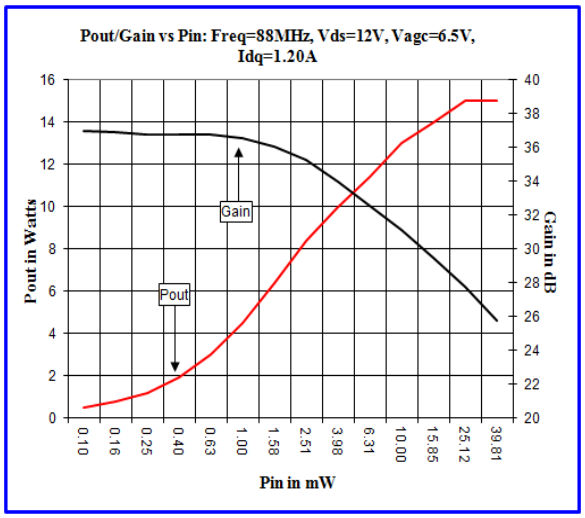
REVISION 03/07/2012

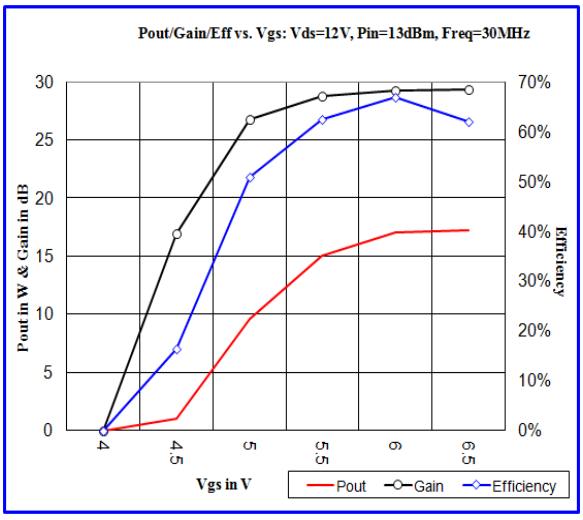
1110 Avenida Acaso, Camarillo, Ca 93012 Tel:(805) 484-4210 FAX: (805) 484-3393 URL:www.polyfet.com

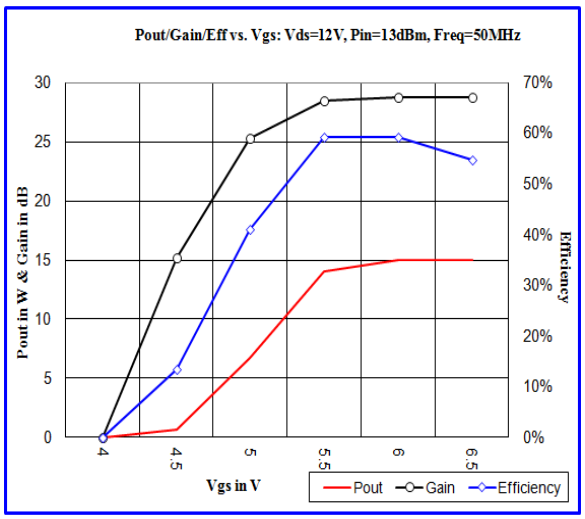
MGDK21

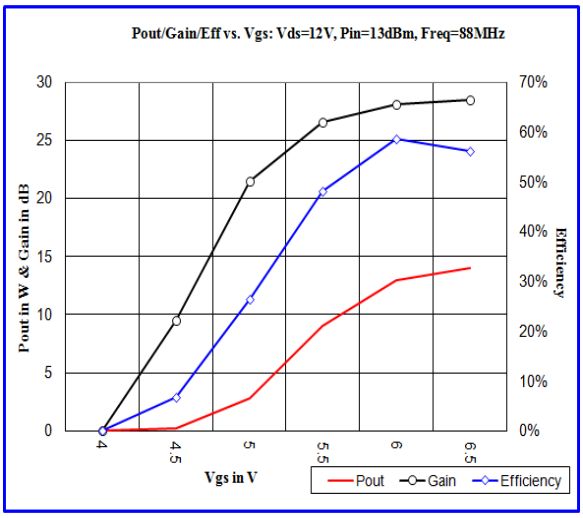






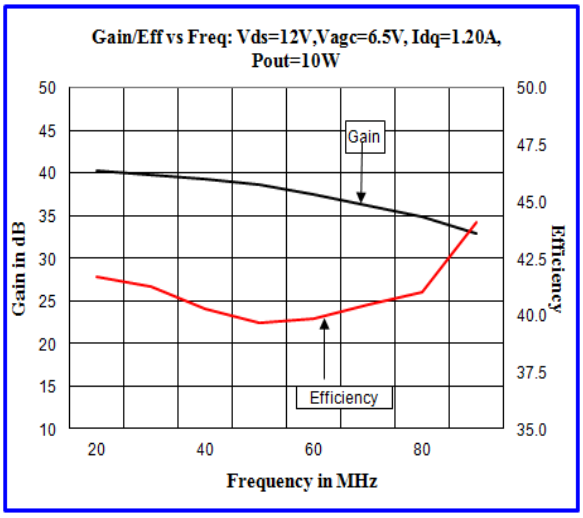


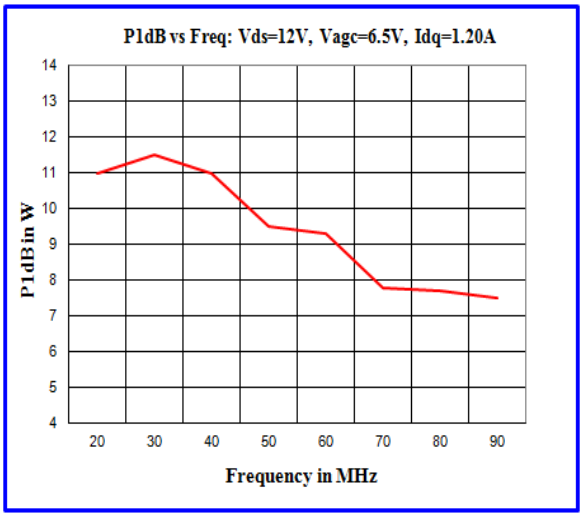


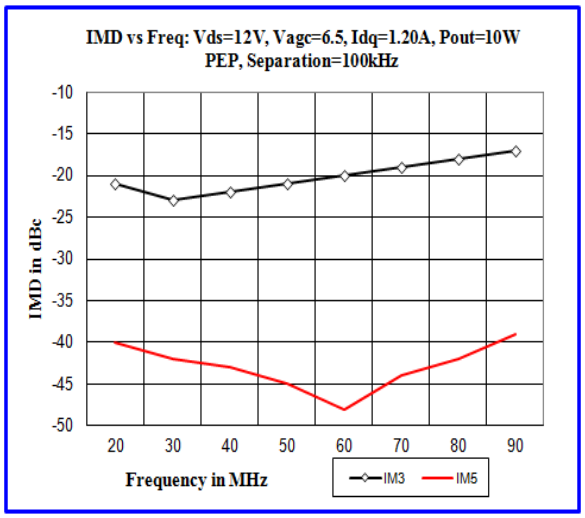


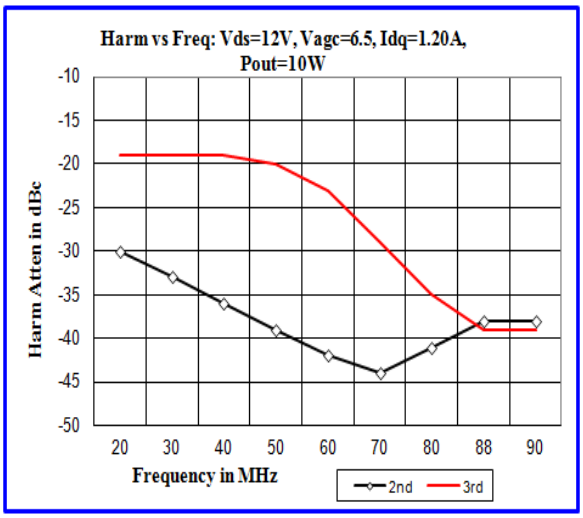
1110 Avenida Acaso, Camarillo, Ca 93012 Tel:(805) 484-4210 FAX: (805) 484-3393 URL:www.polyfet.com

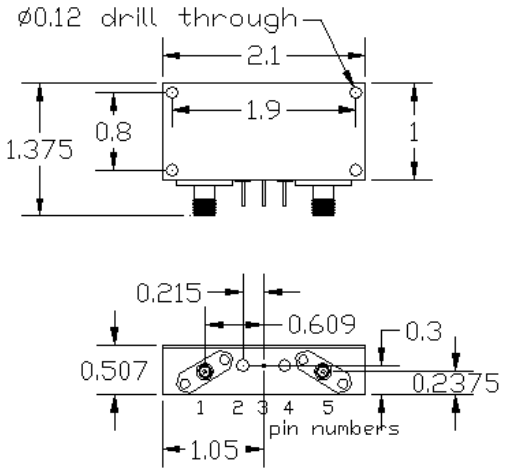
MGDK21











1110 Avenida Acaso, Camarillo, Ca 93012 Tel:(805) 484-4210 FAX: (805) 484-3393 URL:www.polyfet.com