

# TB231

Frequency=100-470MHz

Pout=10W

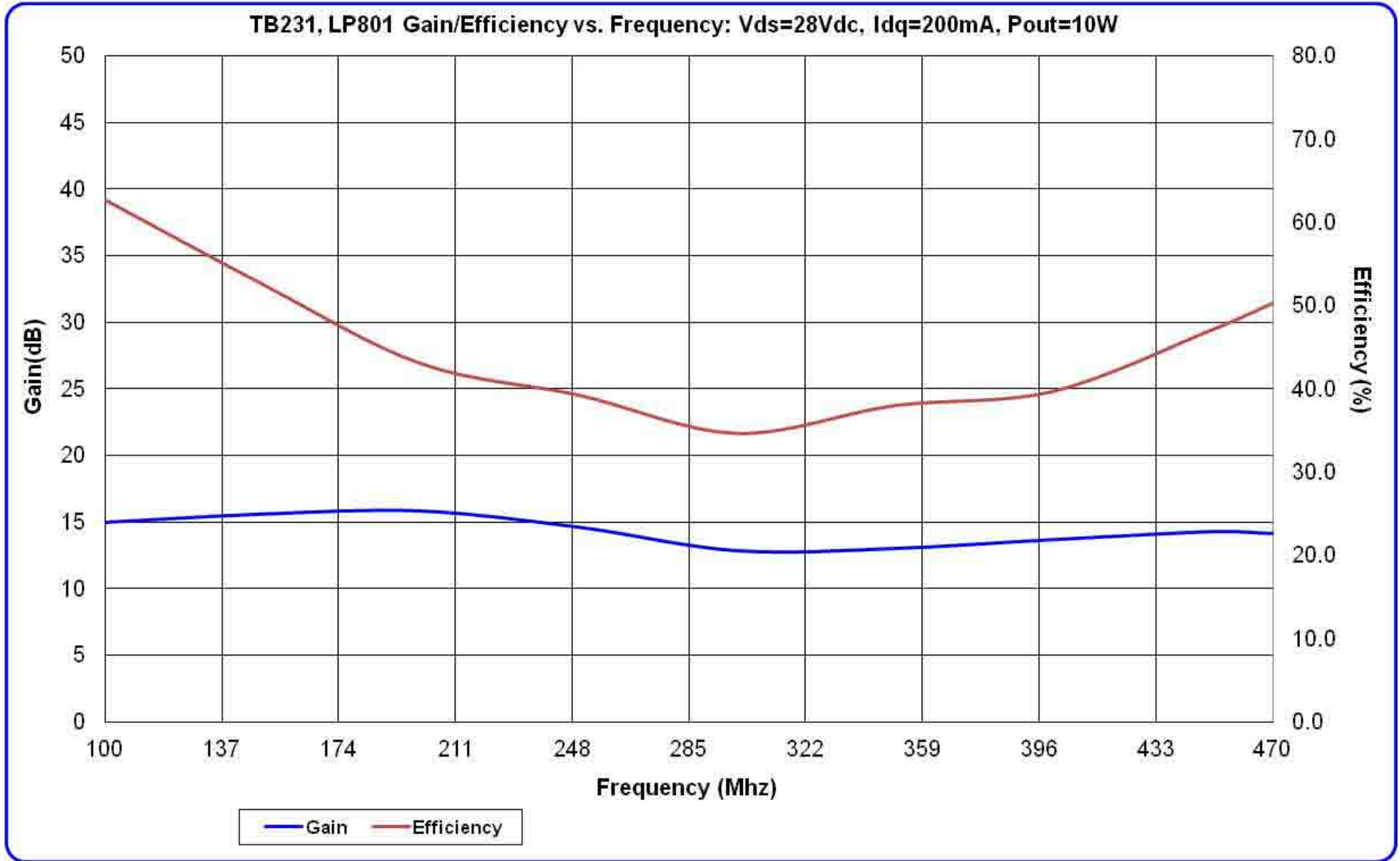
Gain=13dB avg.

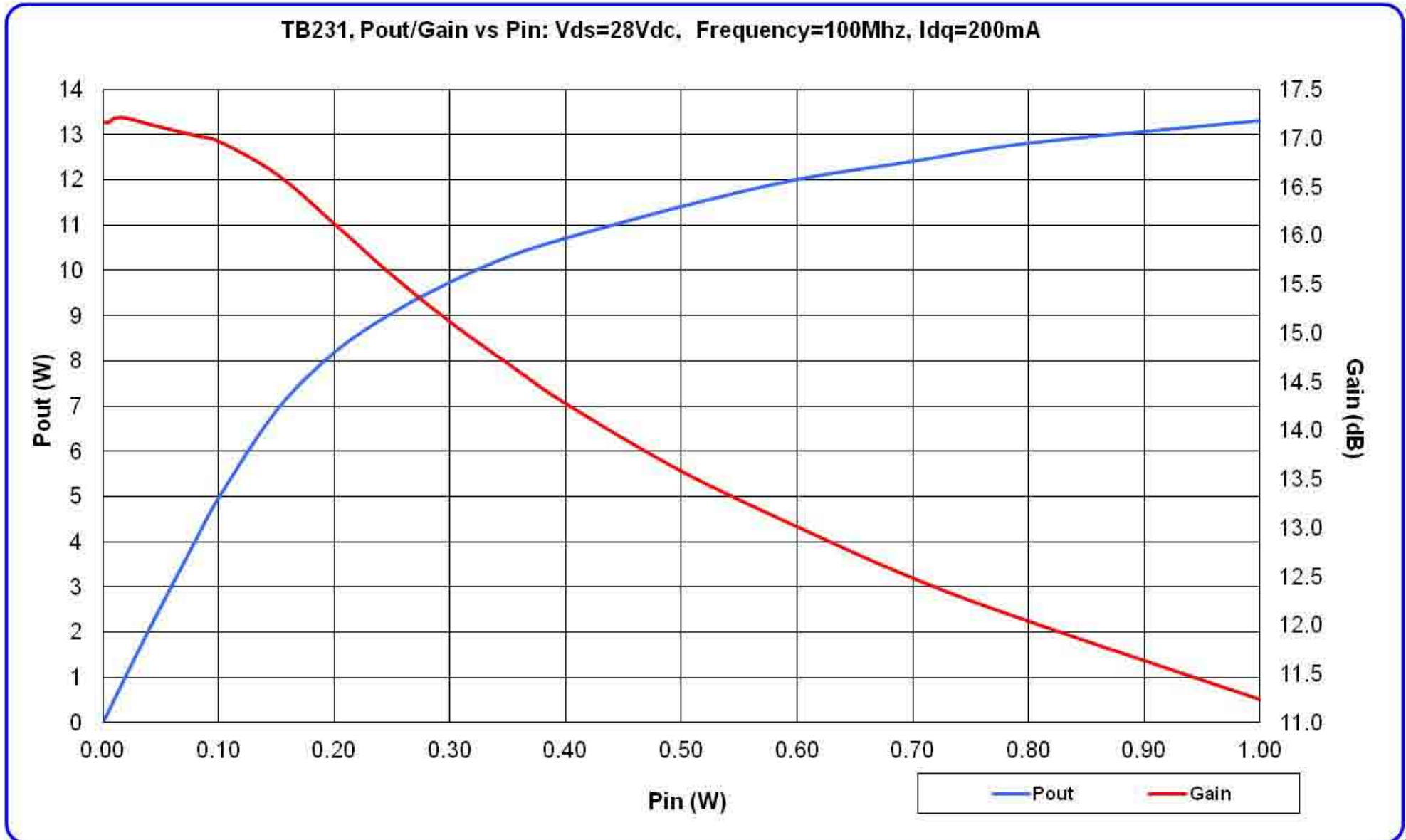
Vds=28Vdc

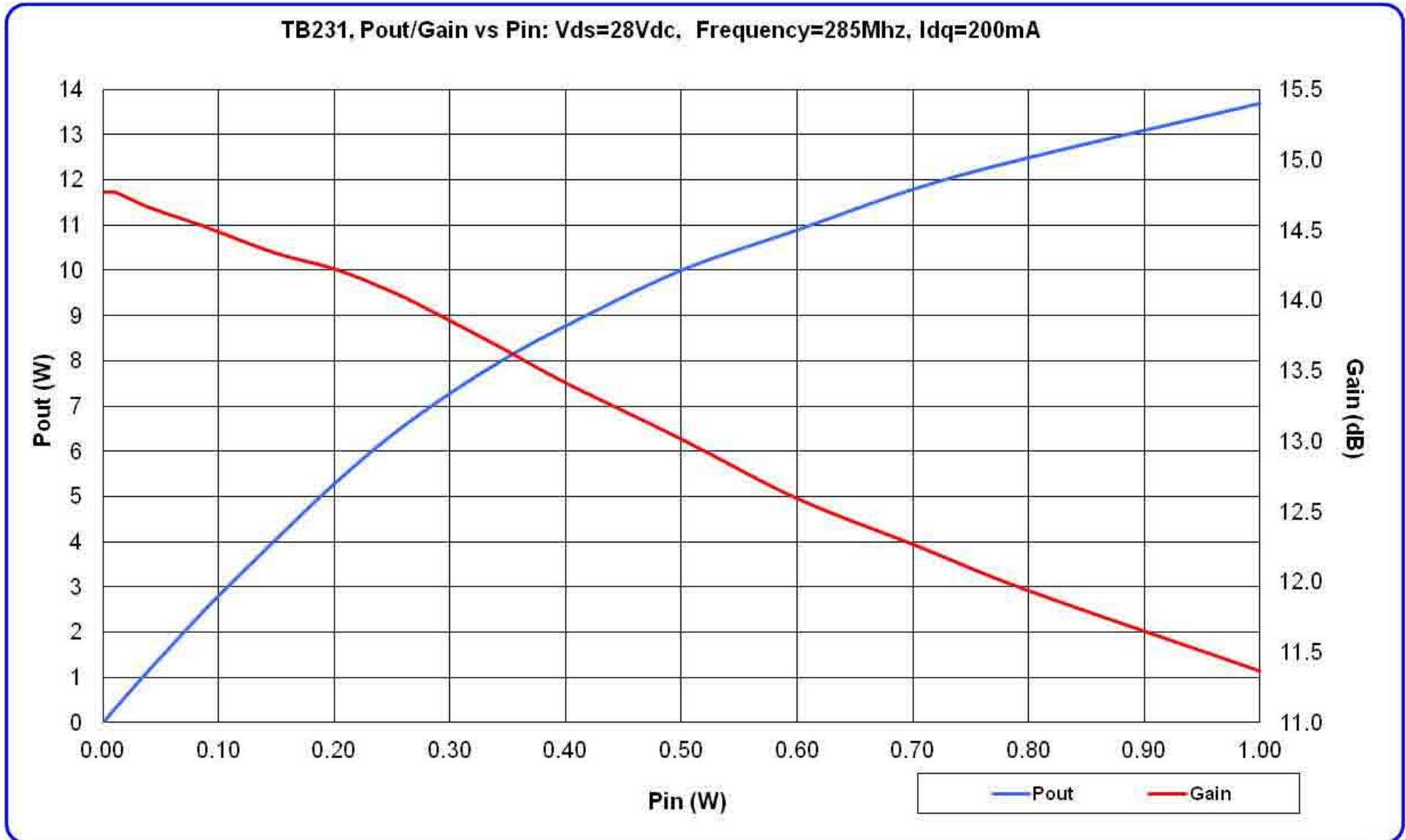
Idq=0.2A

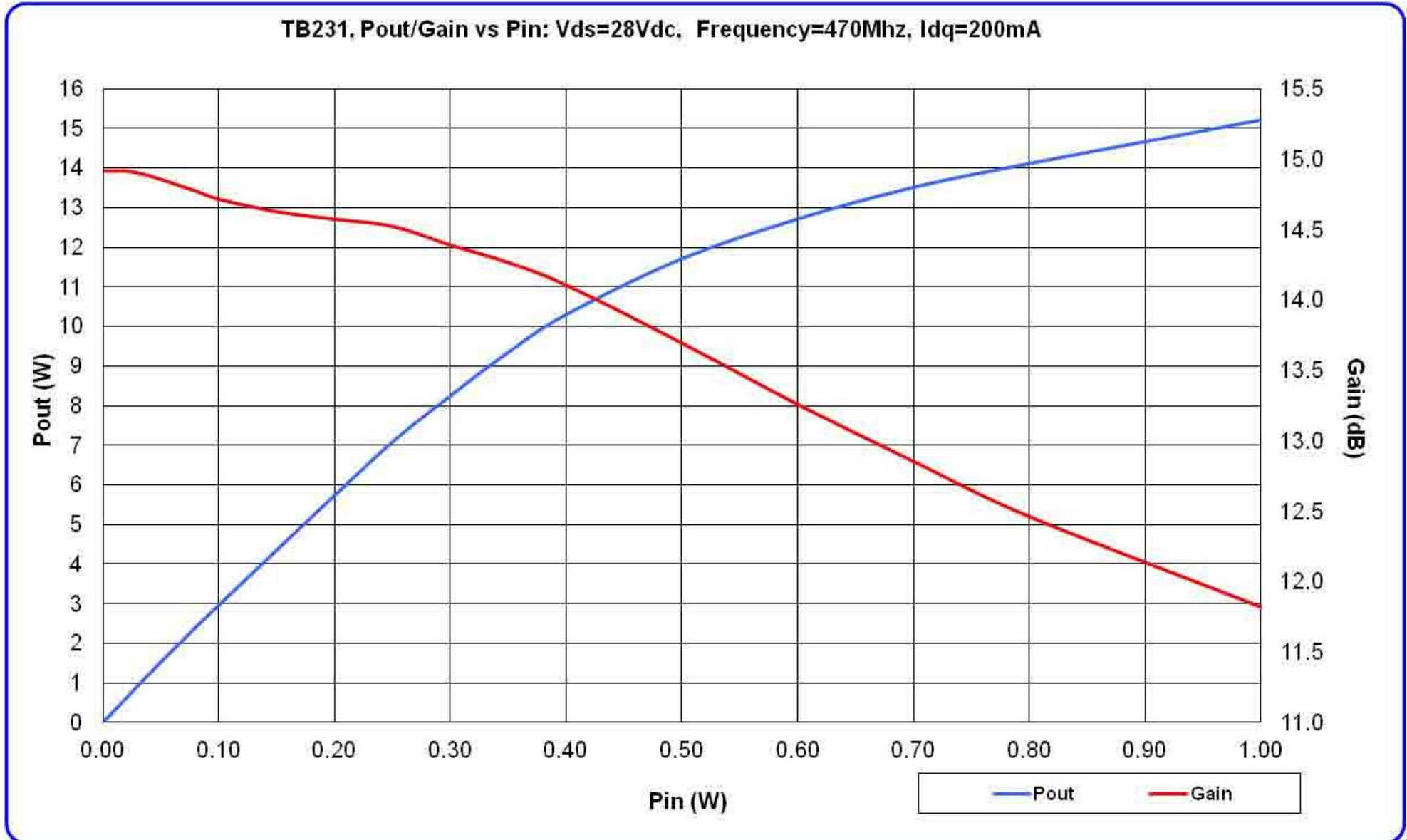
LP801

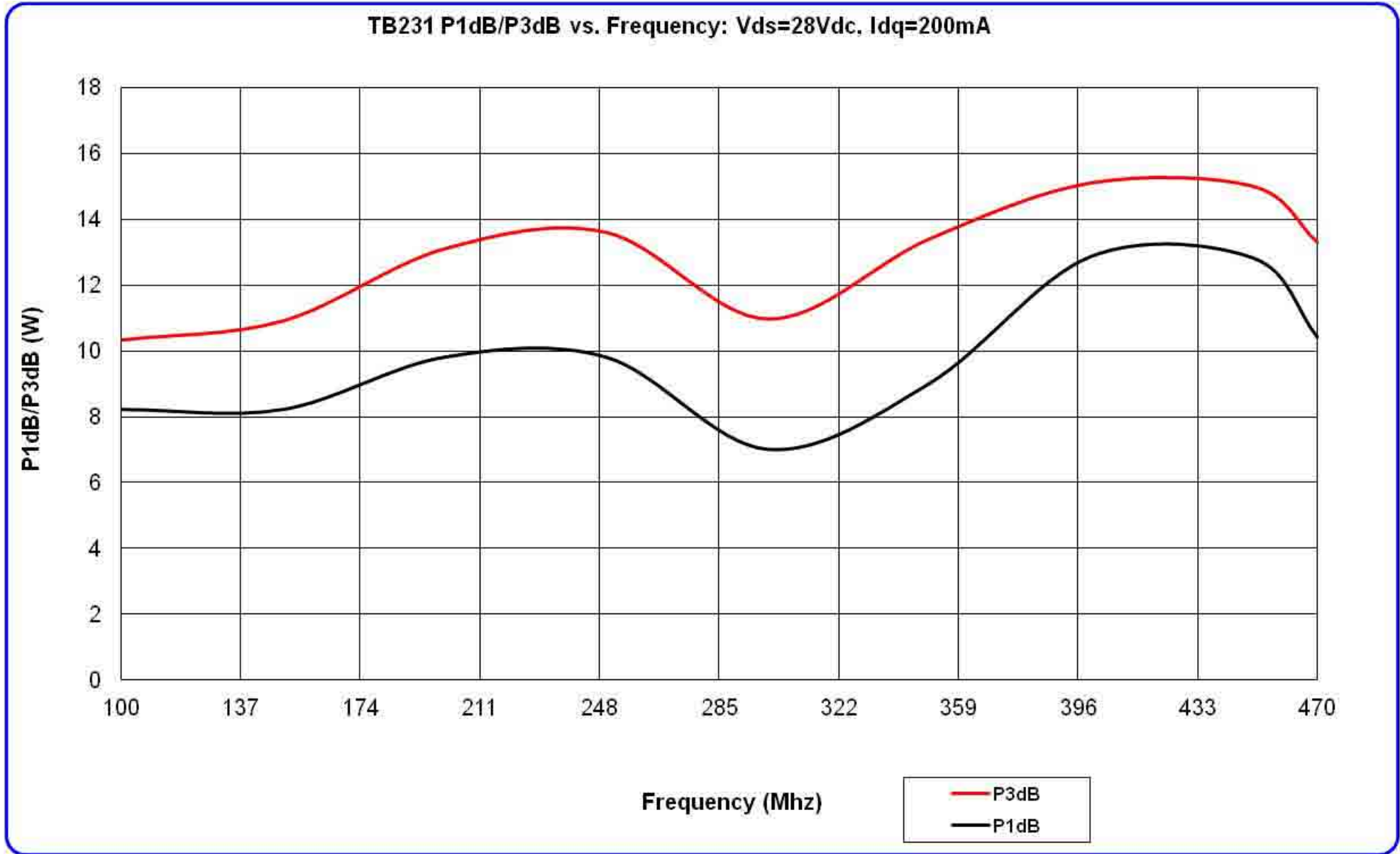




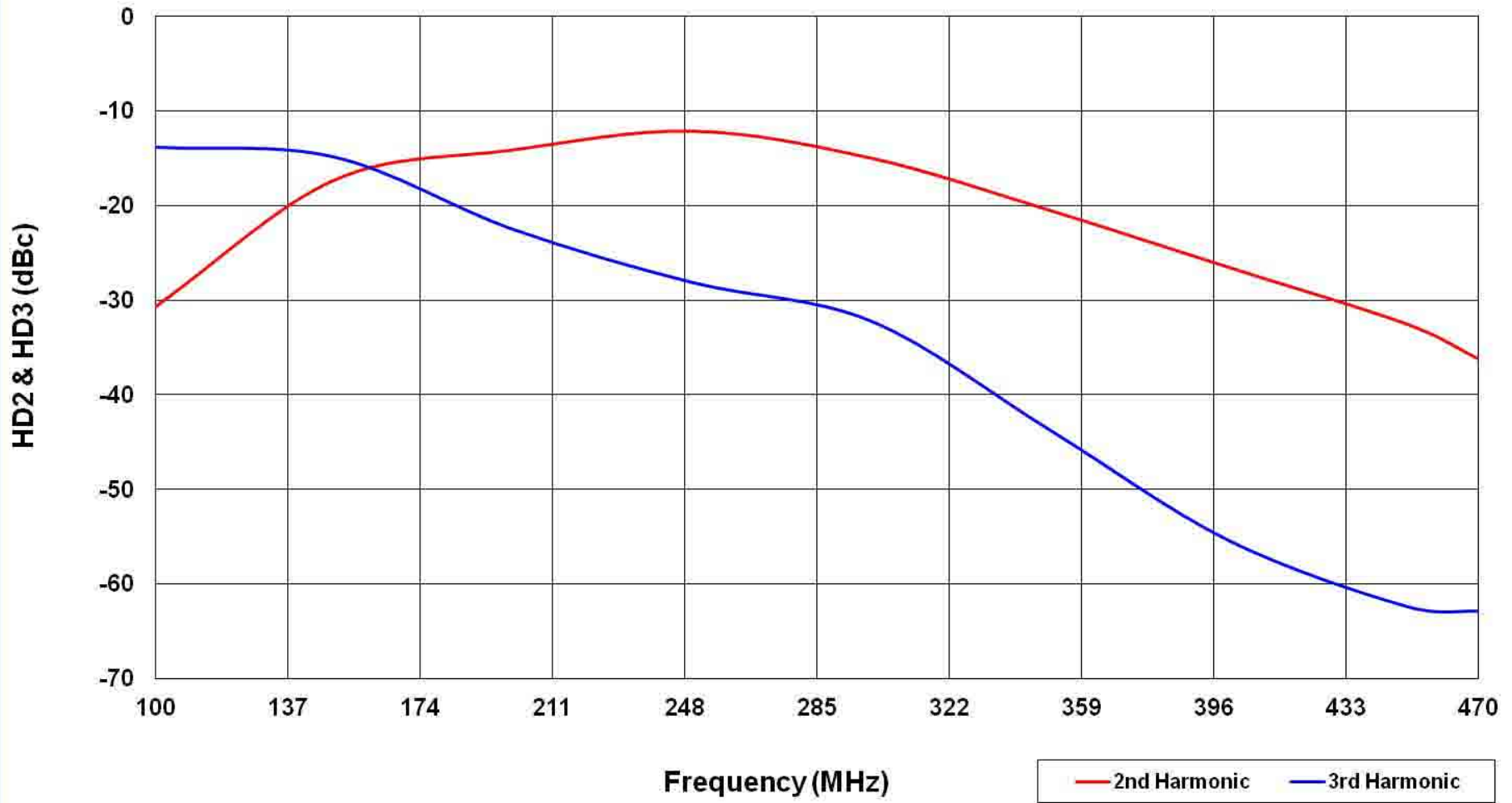


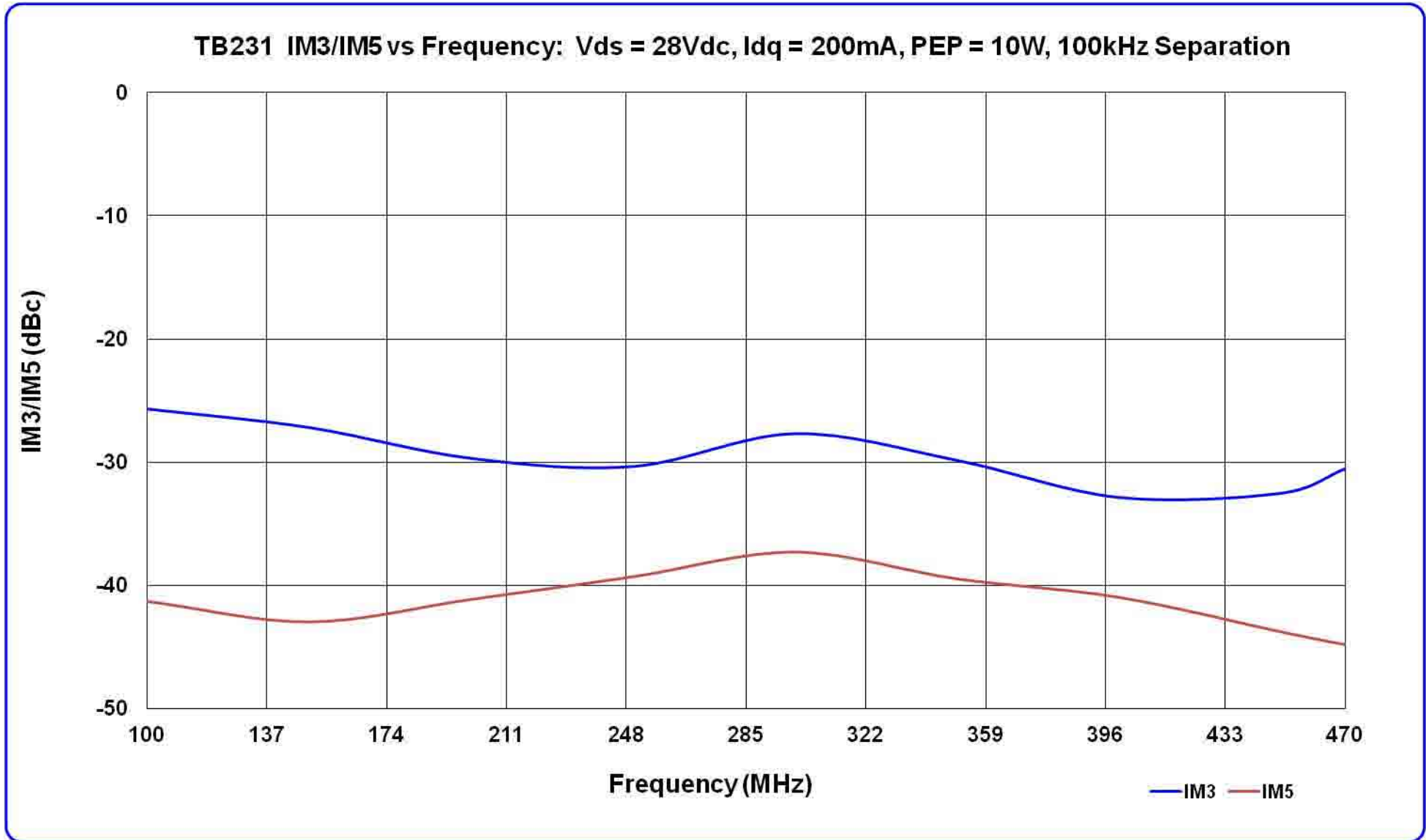




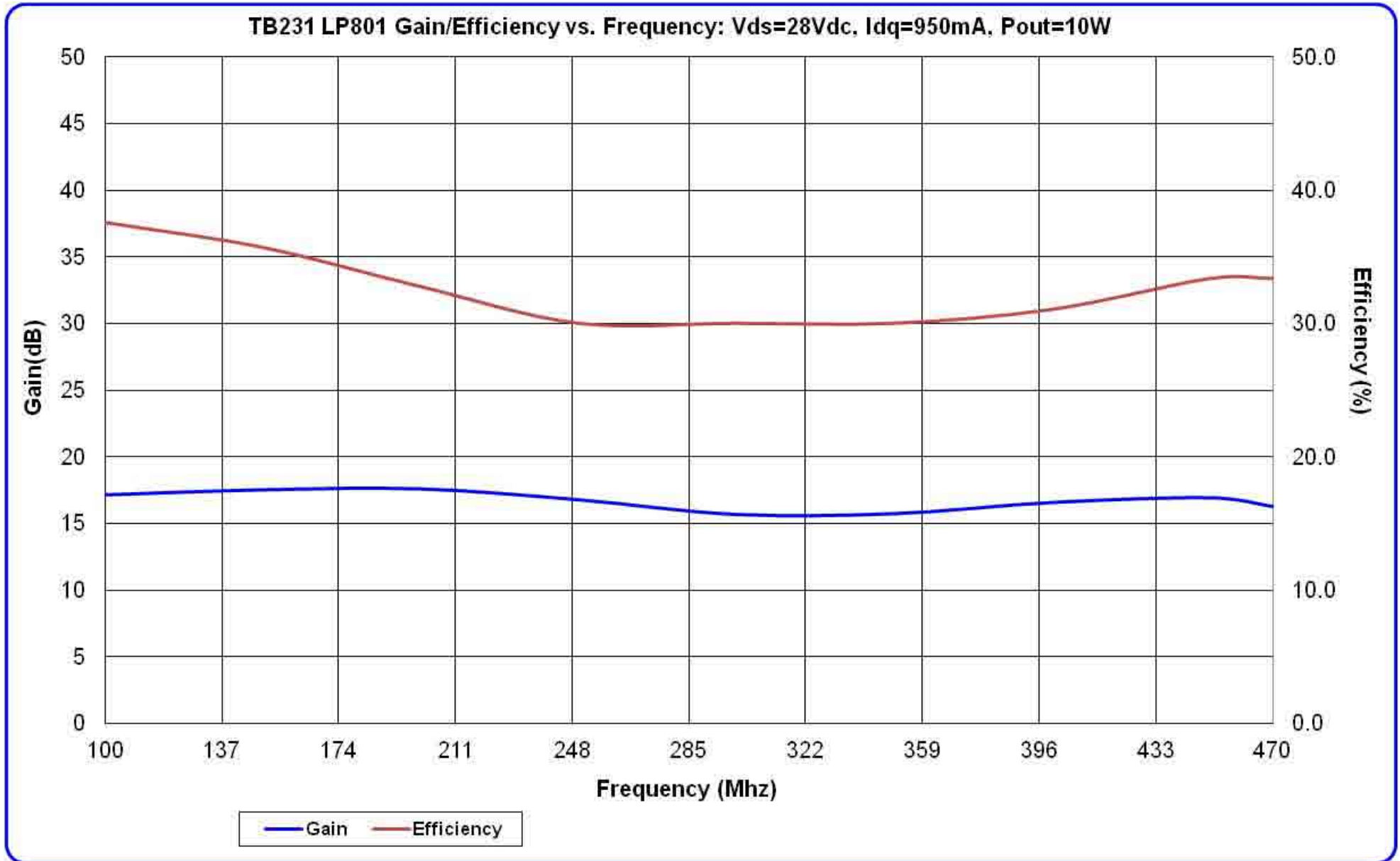


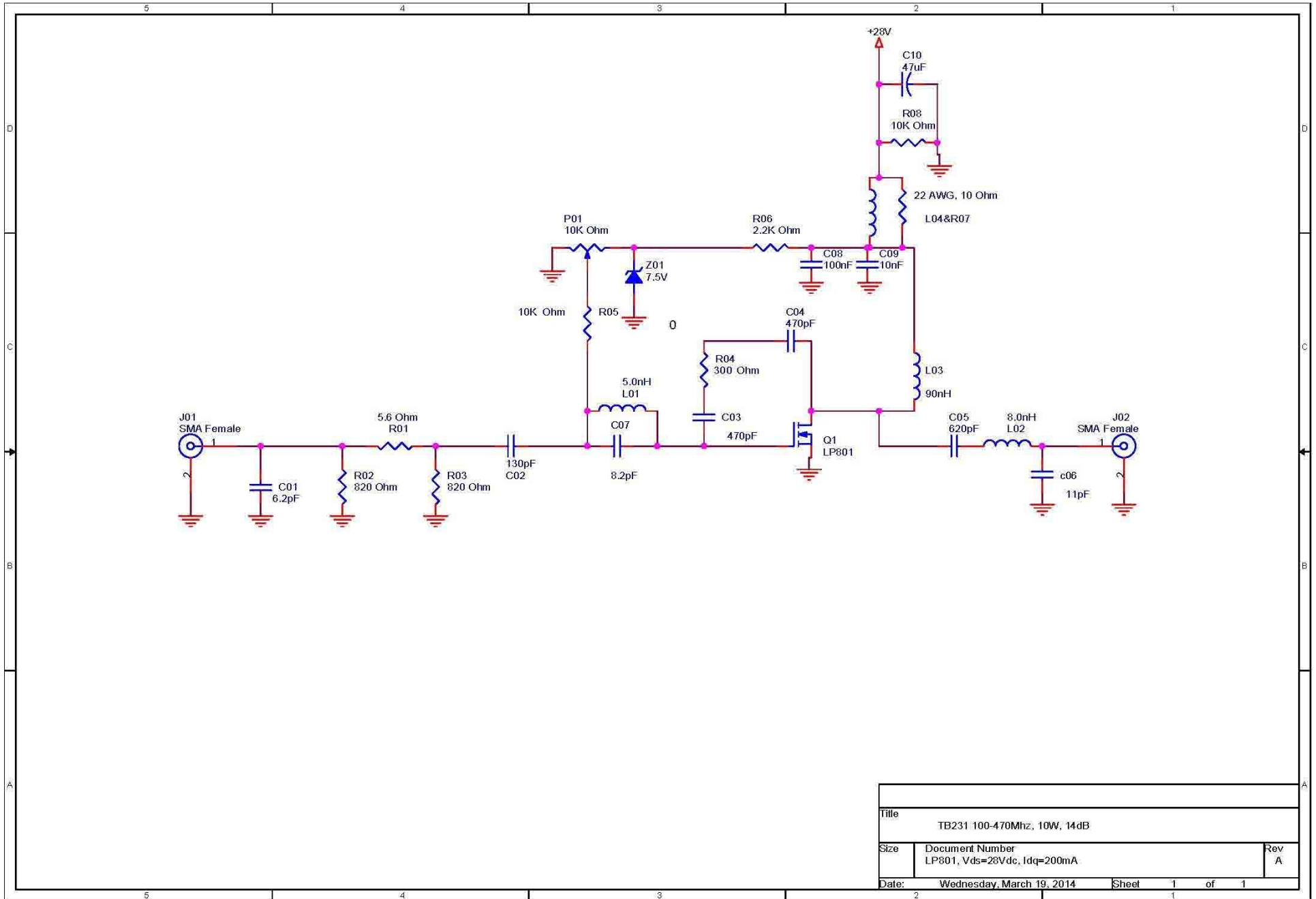
TB231 Harmonics vs Frequency:  $V_{ds} = 28V_{dc}$ ,  $I_{dq} = 200mA$ ,  $P_{out} = 10W$

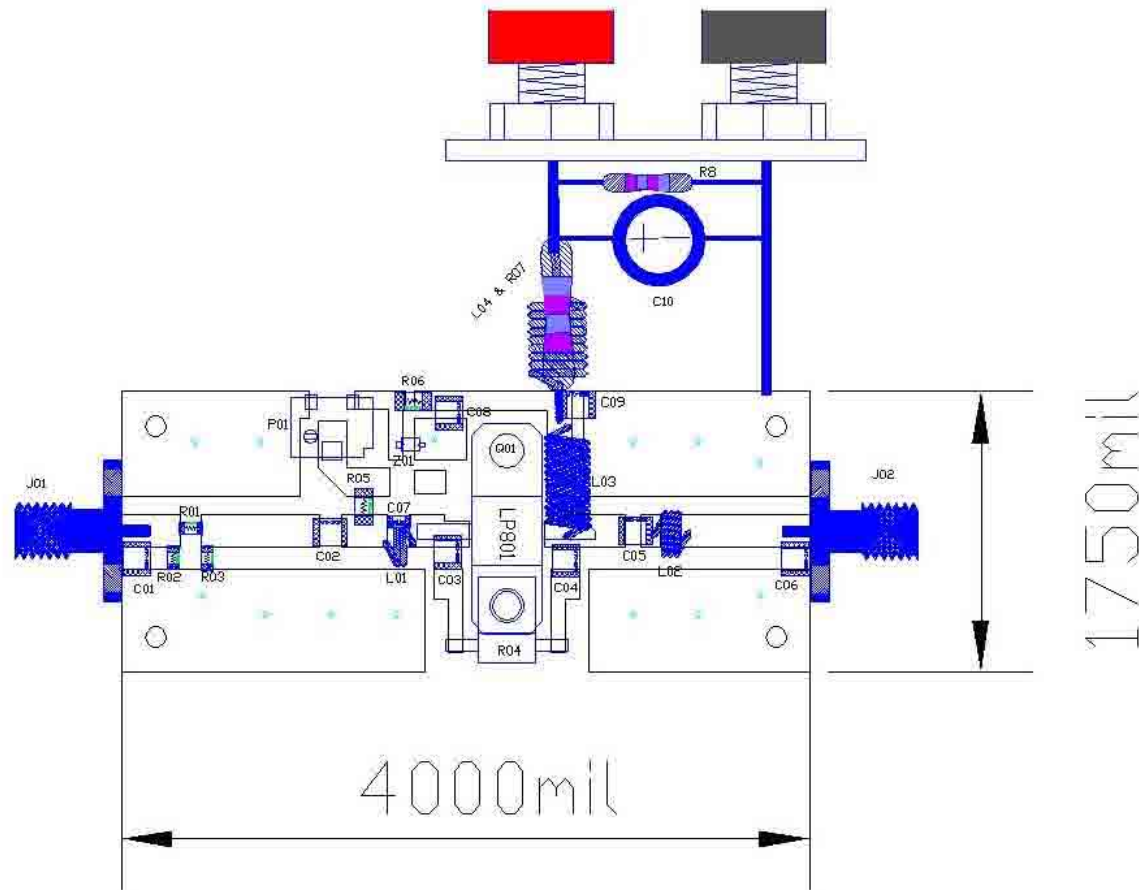












3/19/2014

<b>NOMENCLATURE</b>	<b>(Polyfet TB231) DESCRIPTION</b>	<b>VENDER</b>	<b>VENDER PART #</b>
R01	Thin Film Resistors - SMD CPF 0805 5R6 0.1% 25PPM 1K RL	TE Connectivity / Neohm	CPF0805B5R6E1
R02,R03	Thin Film Resistors - SMD 1/8W 825 ohm 1% 50ppm	Yageo	RT0805FRE07825RL
R04	RES 300 OHM 30W Flanged	Innovative Power Products, Inc.	IPP-RB201-300 Ohm
R05	RES 10K OHM 1/4W 5% 1206 SMD	Rohm Semiconductor	MCR18EZPJ103
R06	RES 2.2K OHM 1/4W 5% 1206 SMD	Rohm Semiconductor	MCR18EZHJ222
R07	RES 10 ohm 2W 5% Metal Film parallel with L4	Xicon	281-10-RC
R08	RES 10K OHM 1/4W 5% CARBON FILM	Stackpole Electronics Inc	CF14JT10K0
C01	6.2pF +/-2% Ultra-low ESR, Microwave Cap., 1111N	Passive Plus, Inc	1111N6R2BW501
C02	130pF +/-2% Ultra-low ESR, Microwave Cap., 1111N	Passive Plus, Inc	1111N131GW101
C03,C04	470pF +/-2% Ultra-low ESR, Microwave Cap., 1111N	Passive Plus, Inc	1111N471GW101
C05	620pF +/-2% Ultra-low ESR, Microwave Cap., 1111N	Passive Plus, Inc	1111N621GW101
C06	11pF +/-2% Ultra-low ESR, Microwave Cap., 1111N	Passive Plus, Inc	1111N110BW501
C07	8.2pF +/-0.1pF Hi-Q Low ESR Cap. 0805N	Passive Plus, Inc	0805N8R2BW257
C08	10,000pF +/-10% RF By-Pass Capacitors,1111X	Passive Plus, Inc	111X103KW500
C09	100,000pF +/-10% RF By-Pass Capacitors,1111X	Passive Plus, Inc	111X104KW500
C10	47uF Aluminum Electrolytic, 63V 20% RADIAL	Panasonic Electronic Components	ECA-1JHG470
L01	5.0nH Mini Spring Surface Mount Inductor,two turns	Coilcraft	A02TGL
L02	8.0nH Mini Spring Surface Mount Inductor,three turns	Coilcraft	A03TGL
L03	90nH Maxi Spring Air Core Inductors	Coilcraft	132-09SM_L_9
L04	22AWG Mag Wire, 9-turns around R19	www.electromechanicsonline.com	MW220SPNRD
P01	Trimmer Resistors - SMD 1/4" 10Kohms 0.25W 10% Vertical Adjust	Bourns Inc.	3269W-1-103GLF
Z01	DIODE ZENER 7.5V 500MW DO35	Fairchild Semiconductor	1N5236B
J01,J02	SMA Female; 4 Hole Panel Mount	Pasternack	PE4000-SF
PCB	FR4, 0.030", 1oz/1oz , er ~ 4.6	KingBoard (http://www.kblaminates.com)	KB-5150/5150
Q1	LDMOS	Polyfet RF Devices	LP801