

TB274

GP2001

Frequency = 500-2700MHz

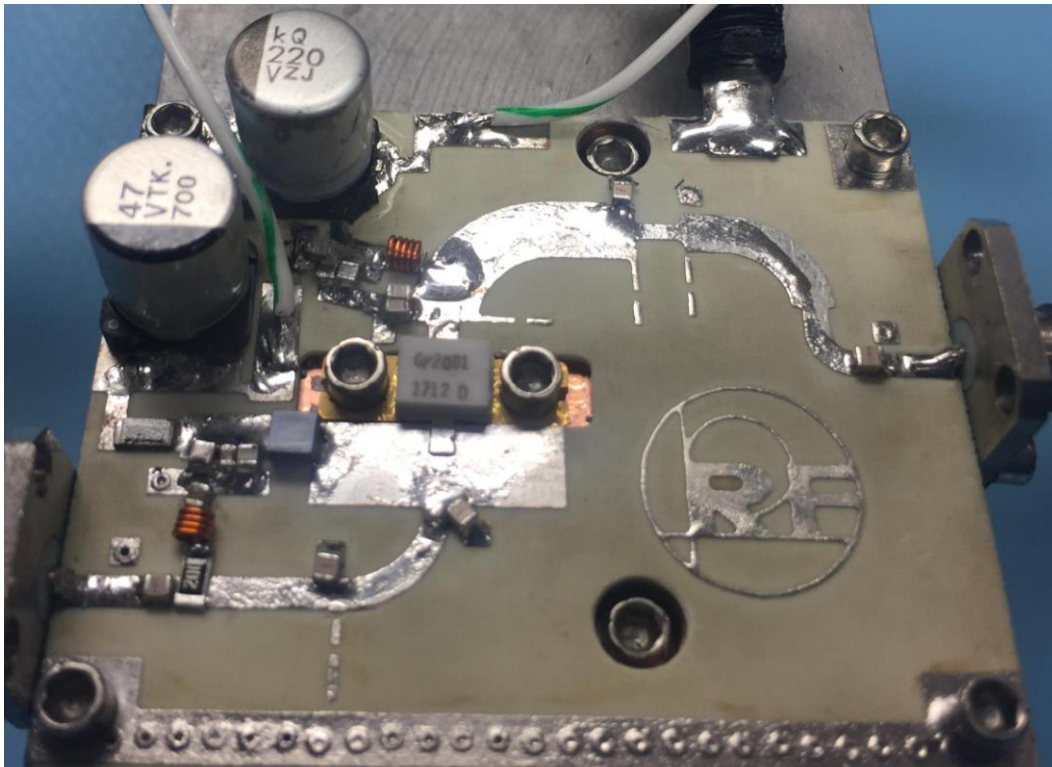
Pout = Min 39dBm P1dB

Gain = Min 11dB

Vds = 28VDC

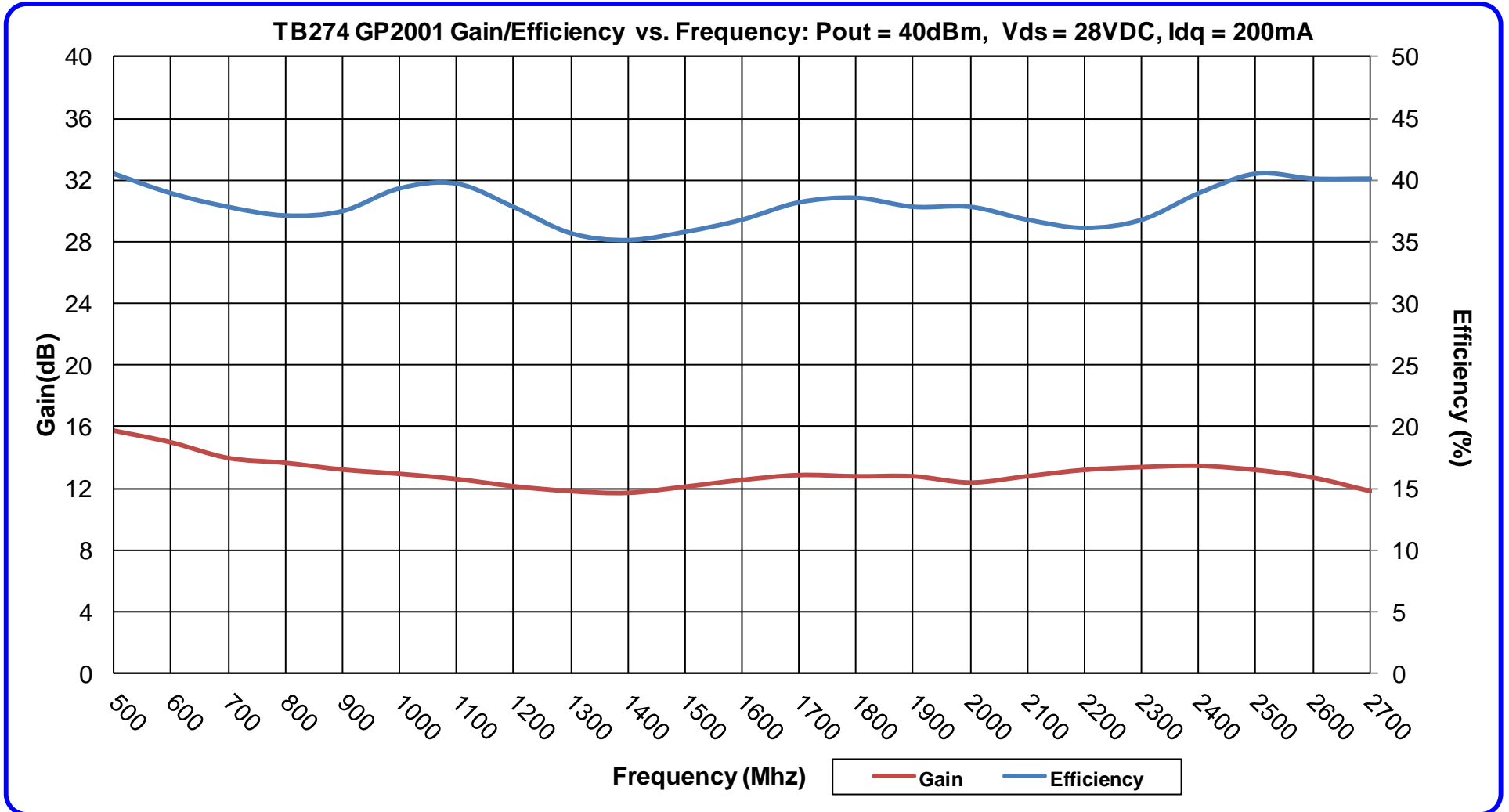
Idq = 200mA

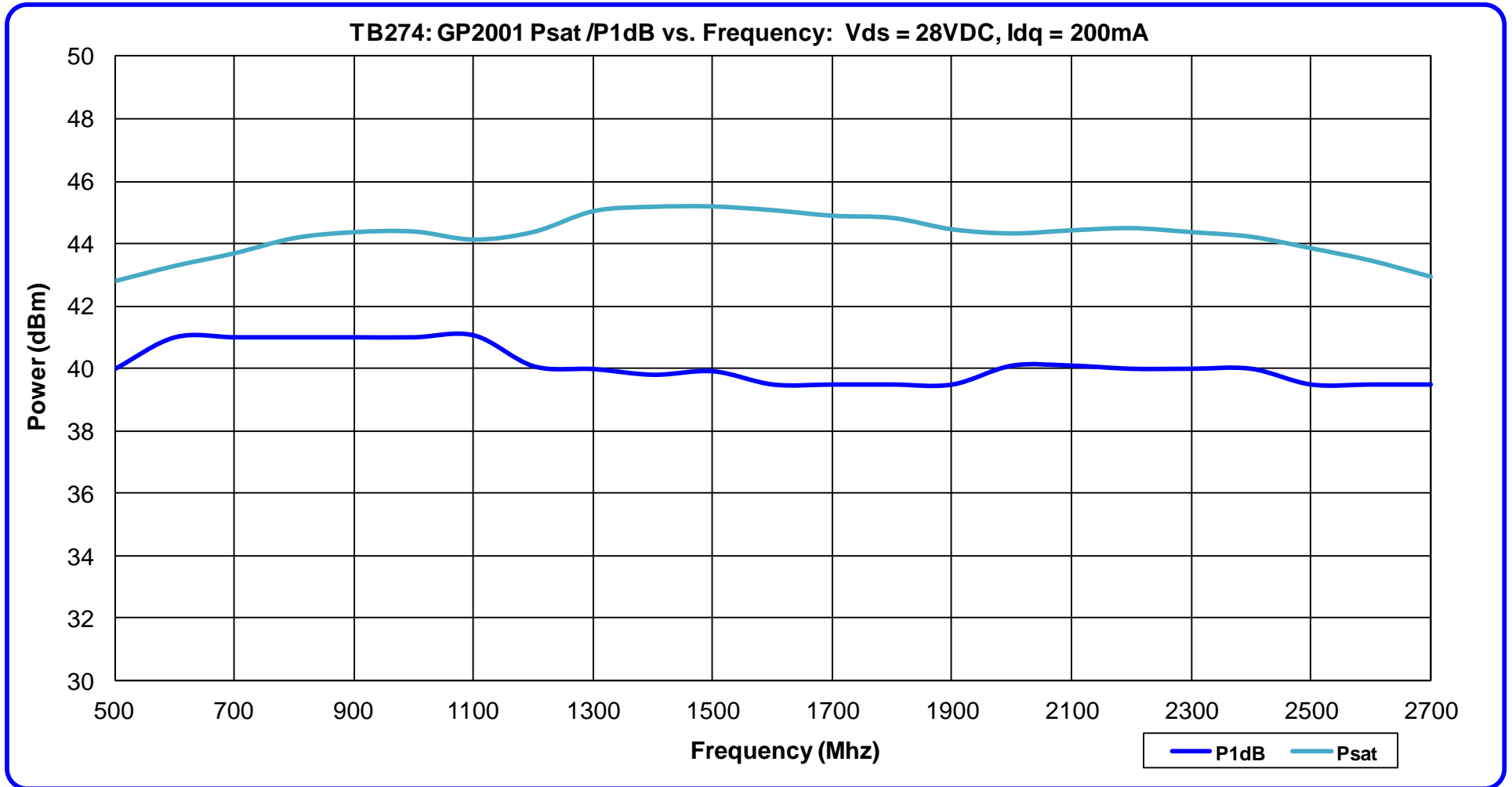
Efficiency = 37% (avg)

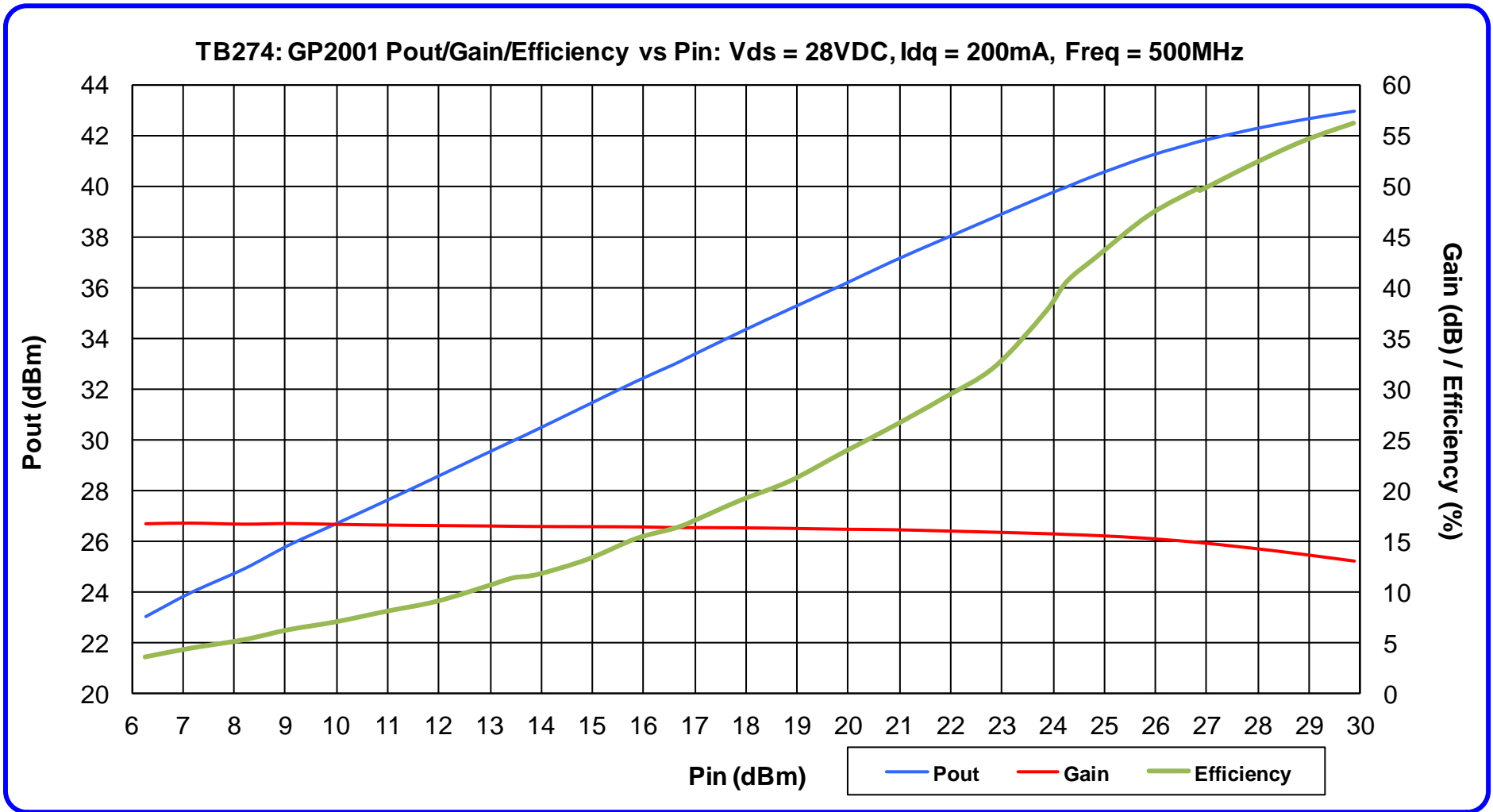


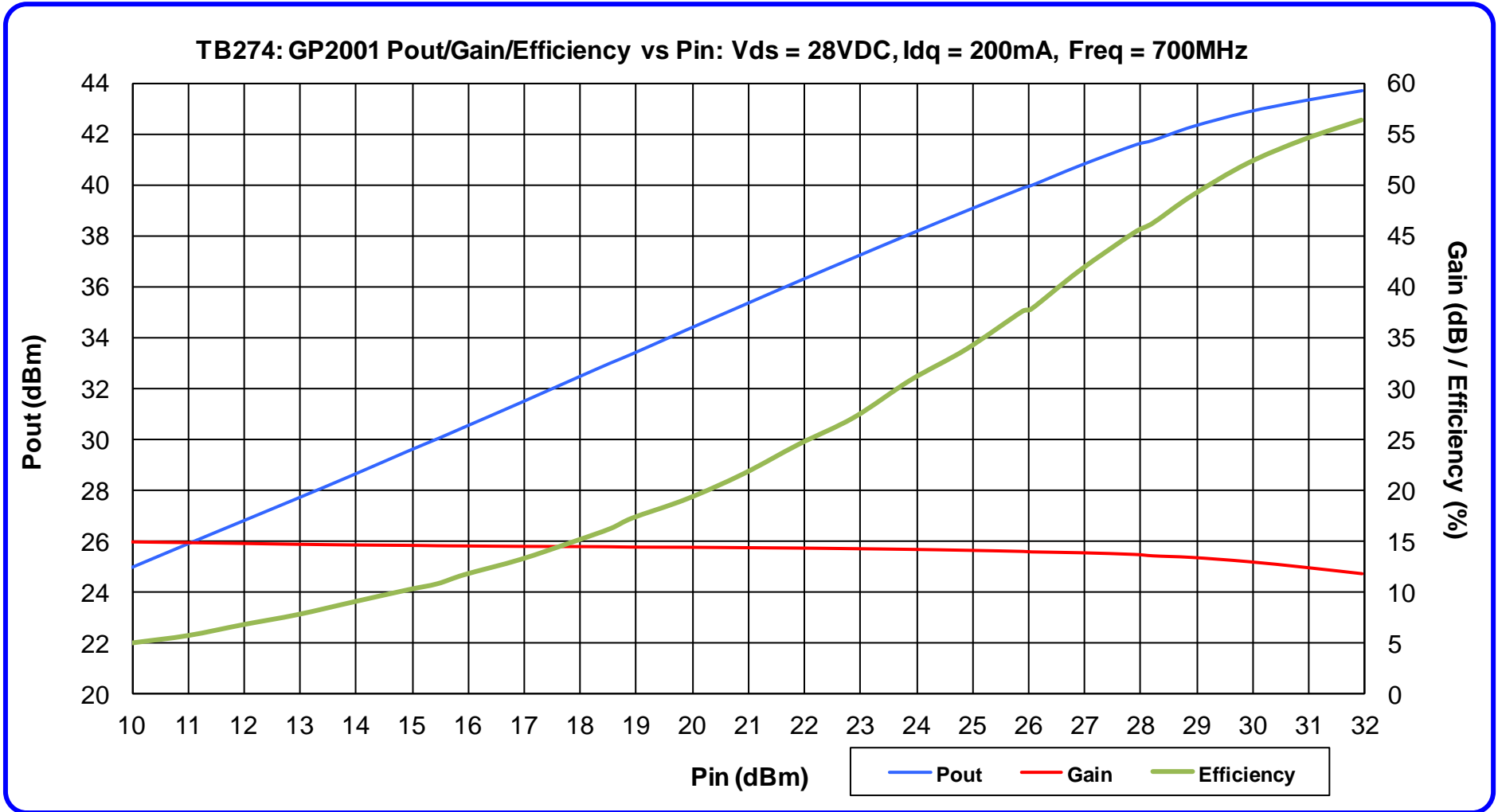
Bias instructions for TB274. Terminal ID found on page 19.

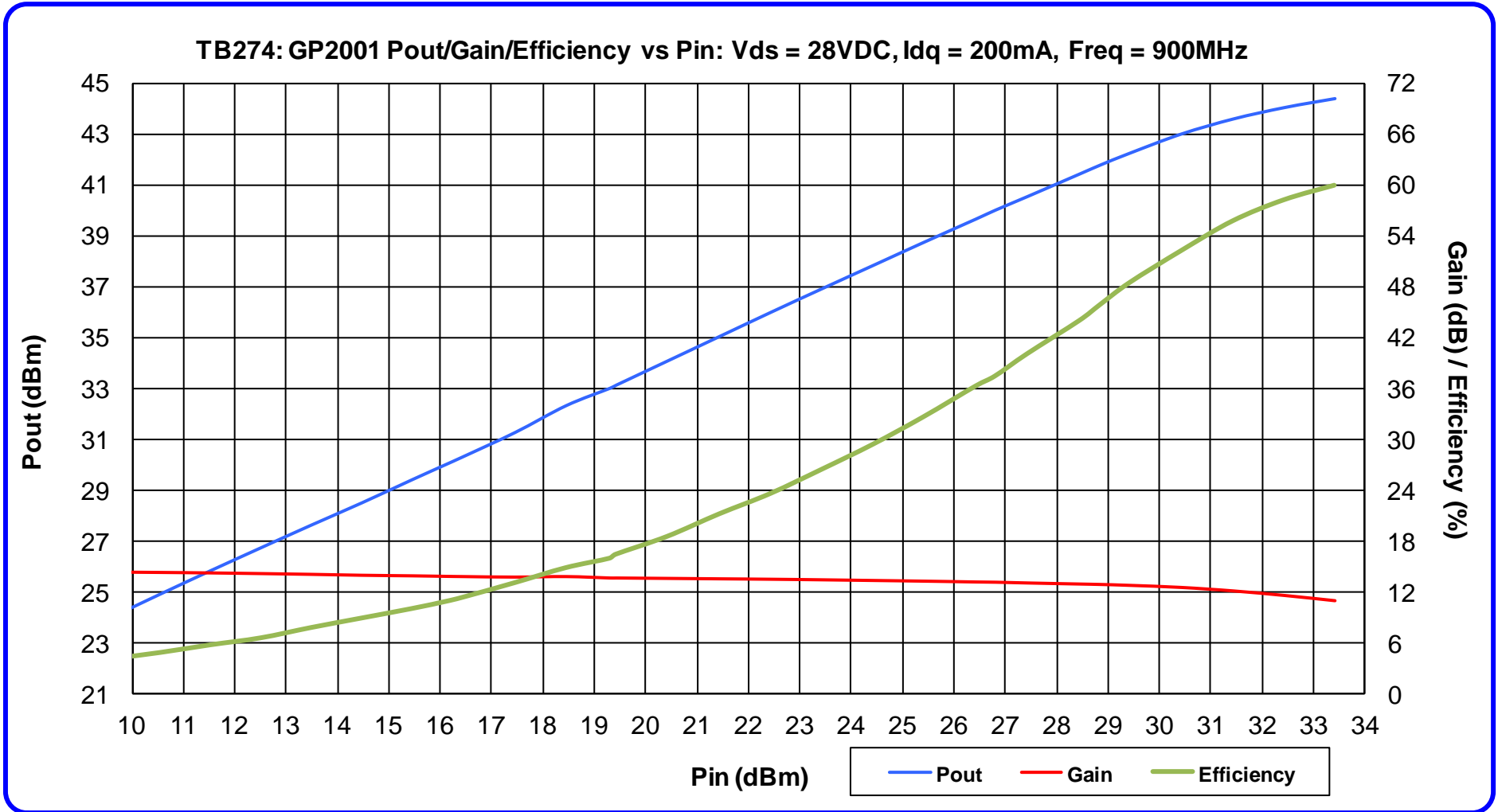
1. Apply -5.00V to VGS terminal.
2. Apply 28VDC to VDS terminal.
3. Increase Vgs until drain current reaches 200mA bias current. This will happen at approximately -2.072VDC.
4. Apply RF input power.
5. After RF test is completed, remove RF input power.
6. Remove 28V Vds supply voltage.
7. Remove Vgs supply voltage.

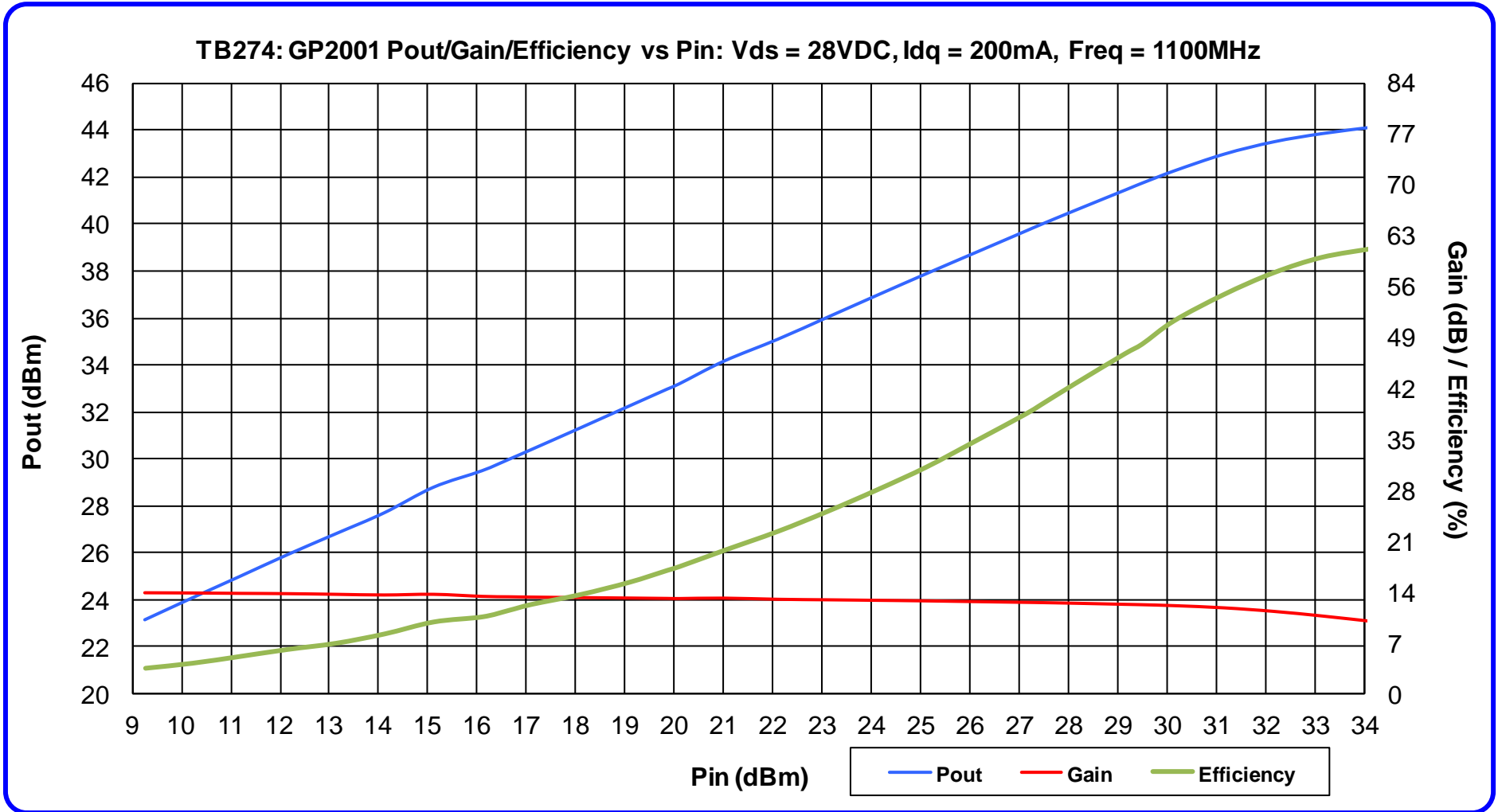


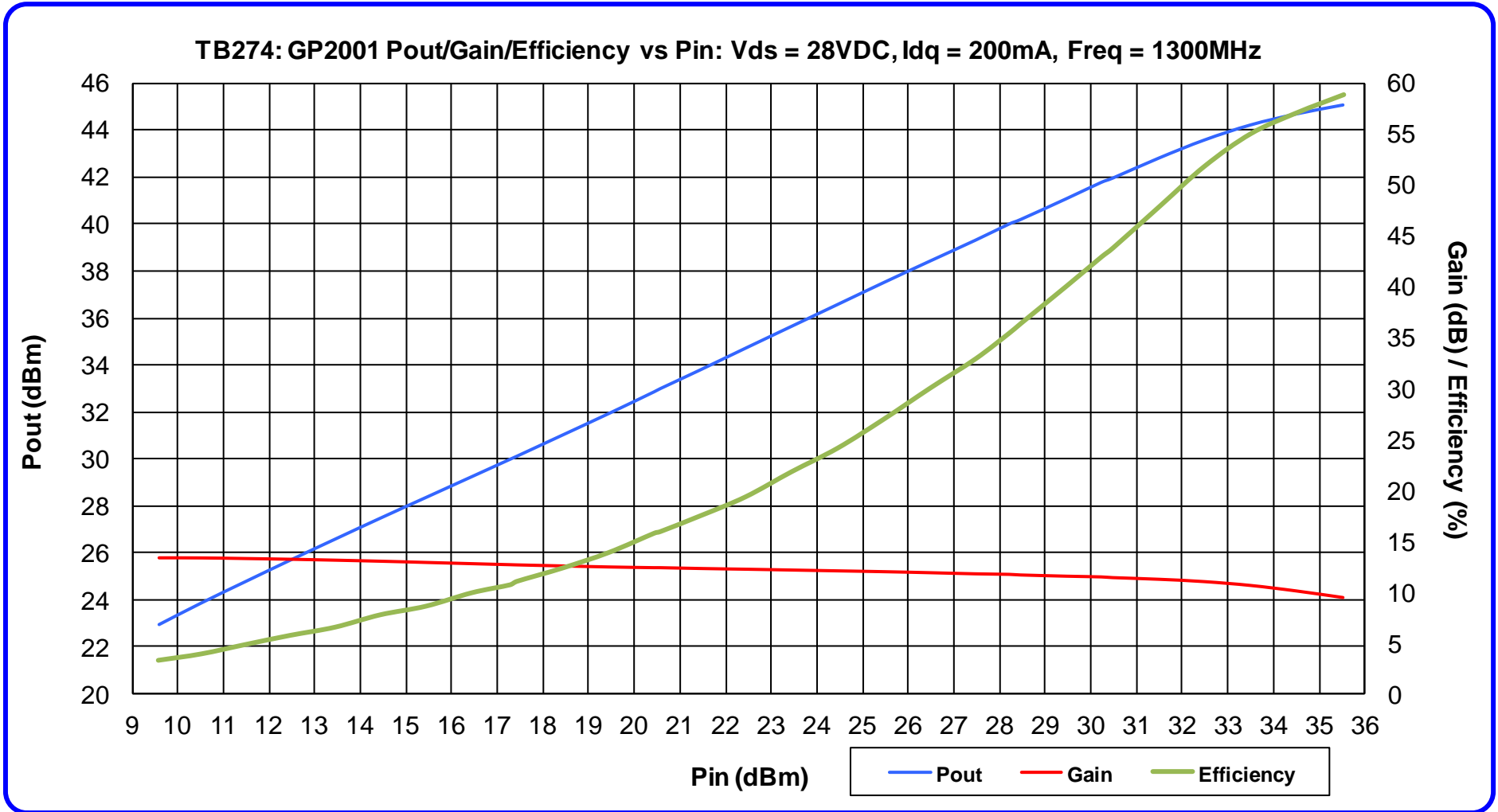


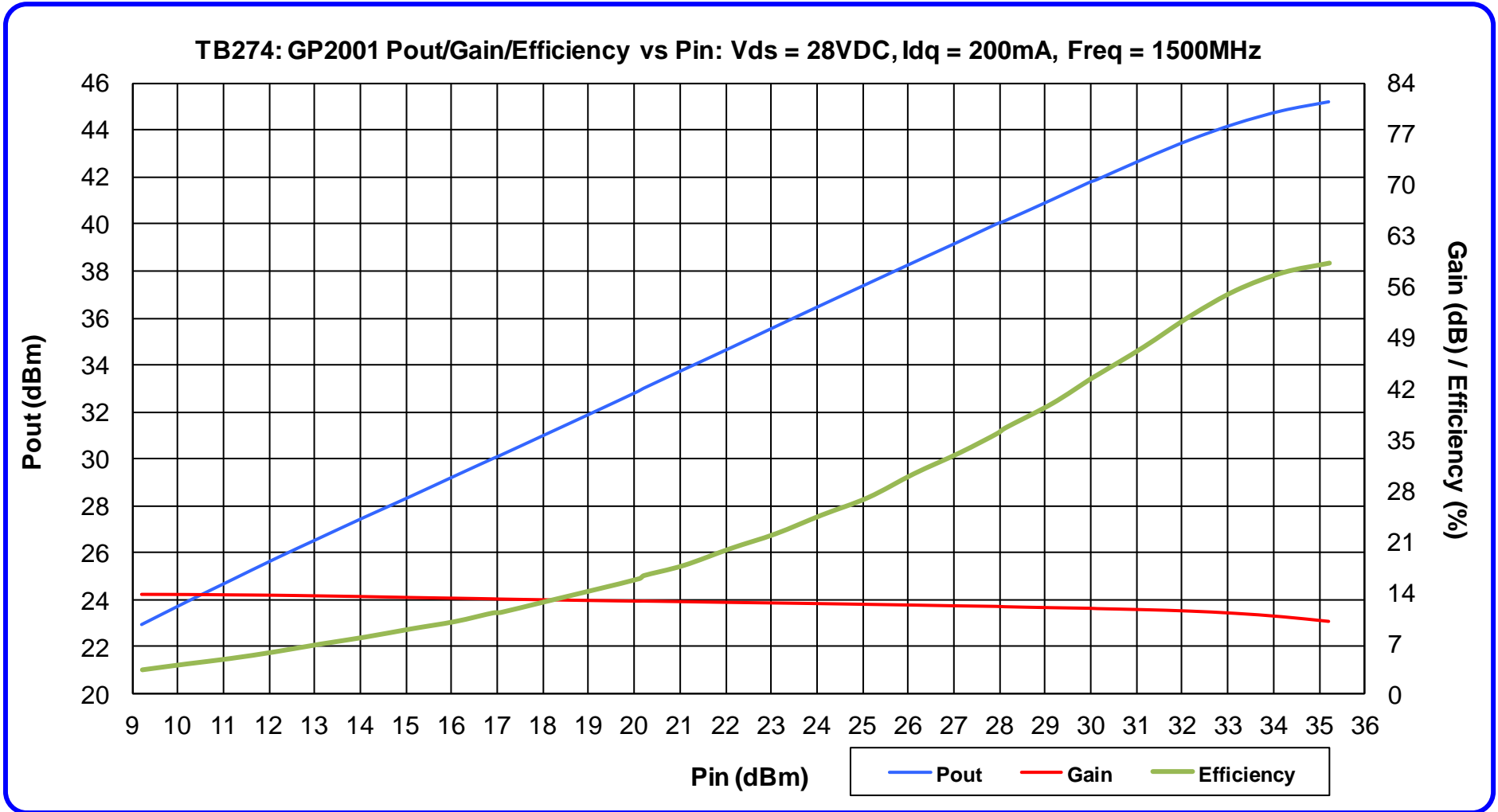


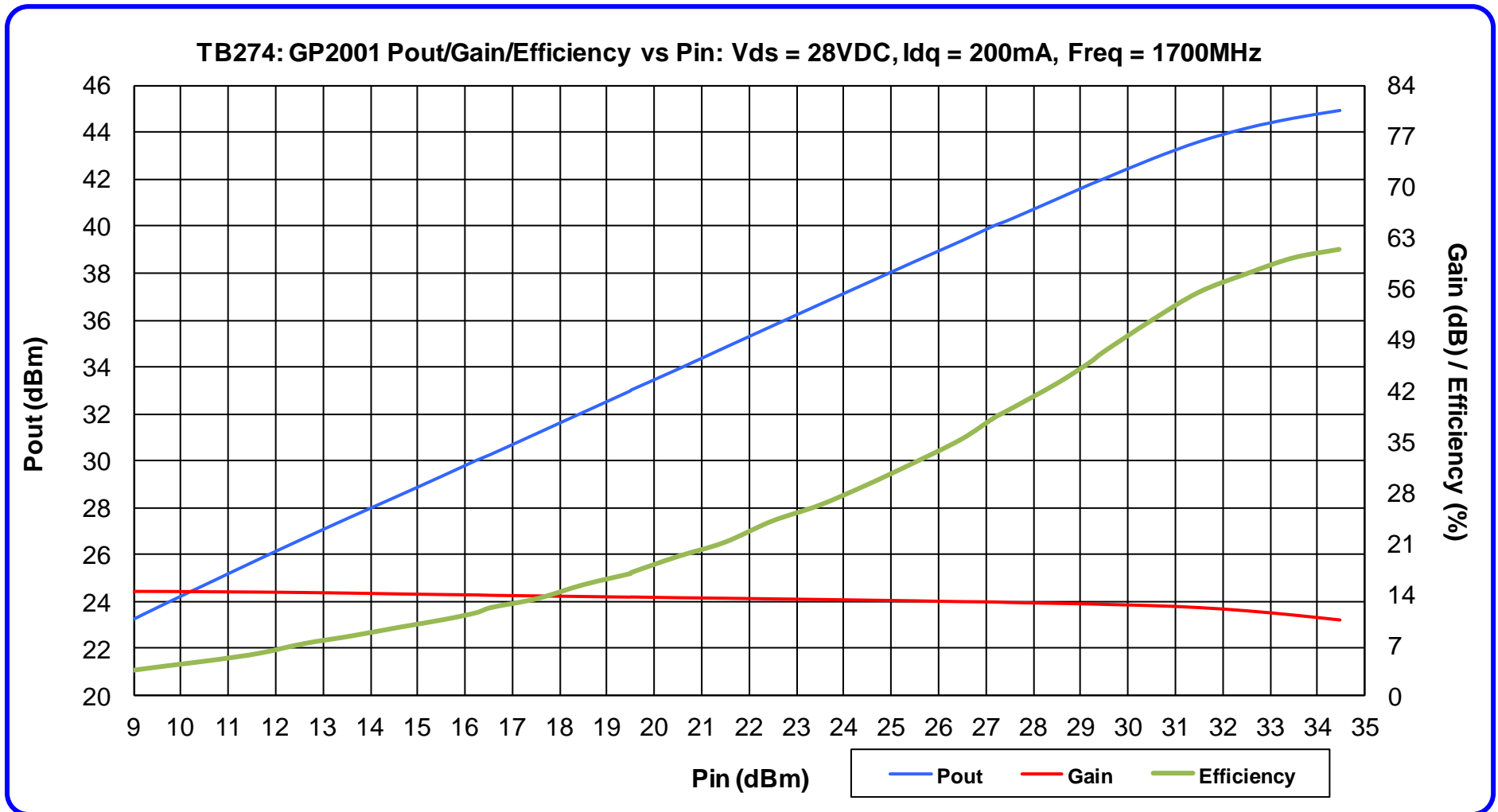


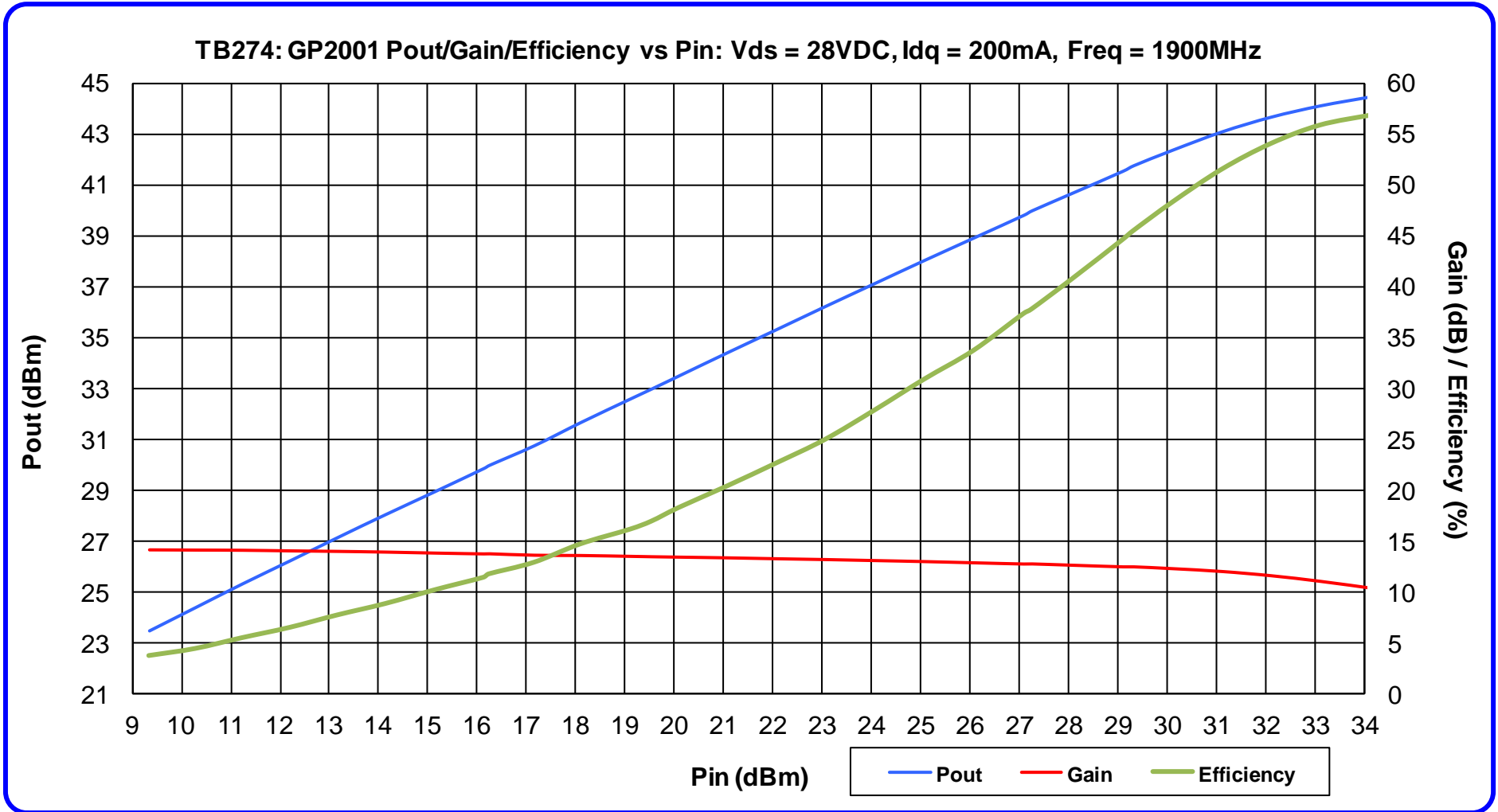


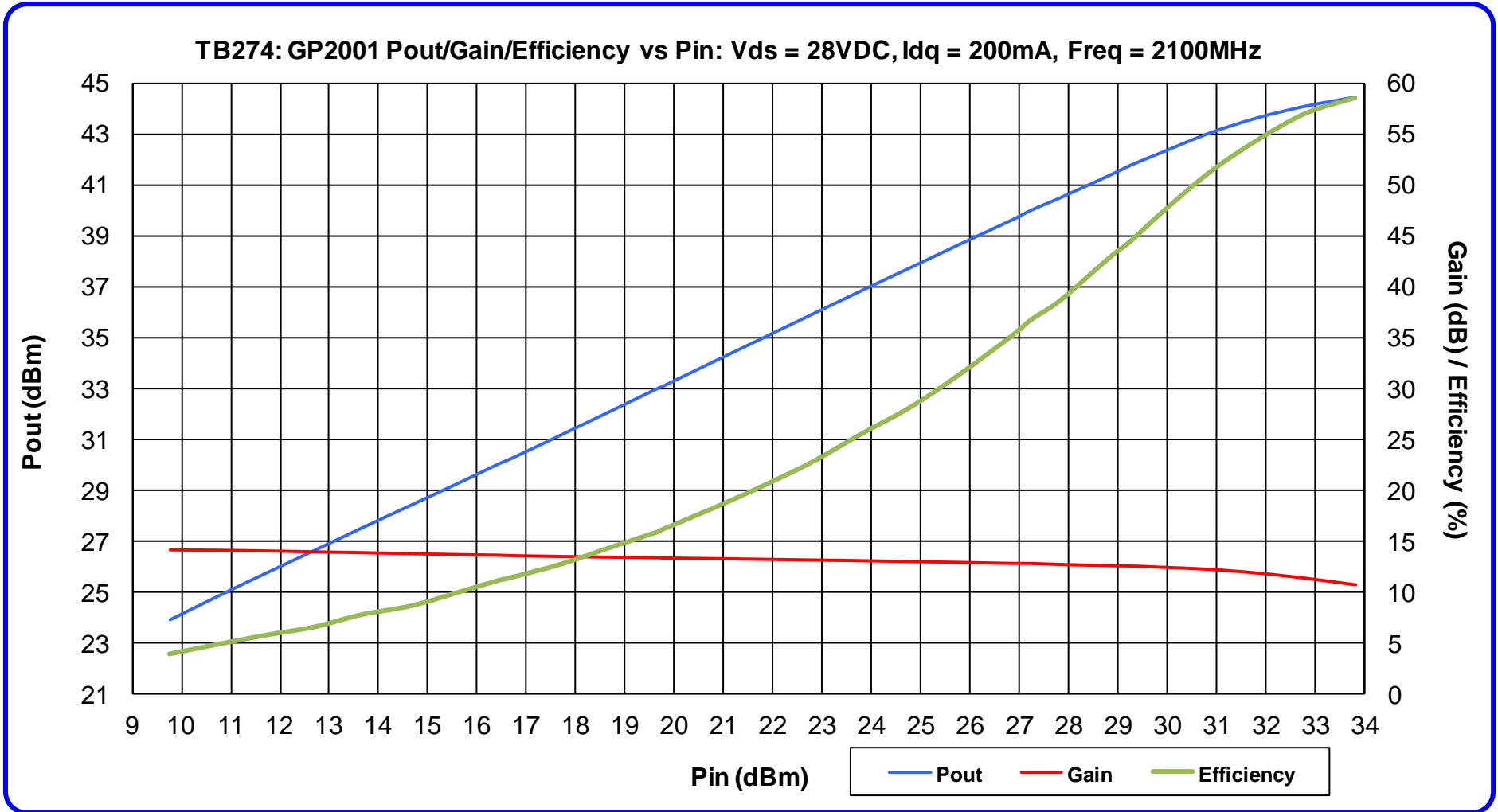


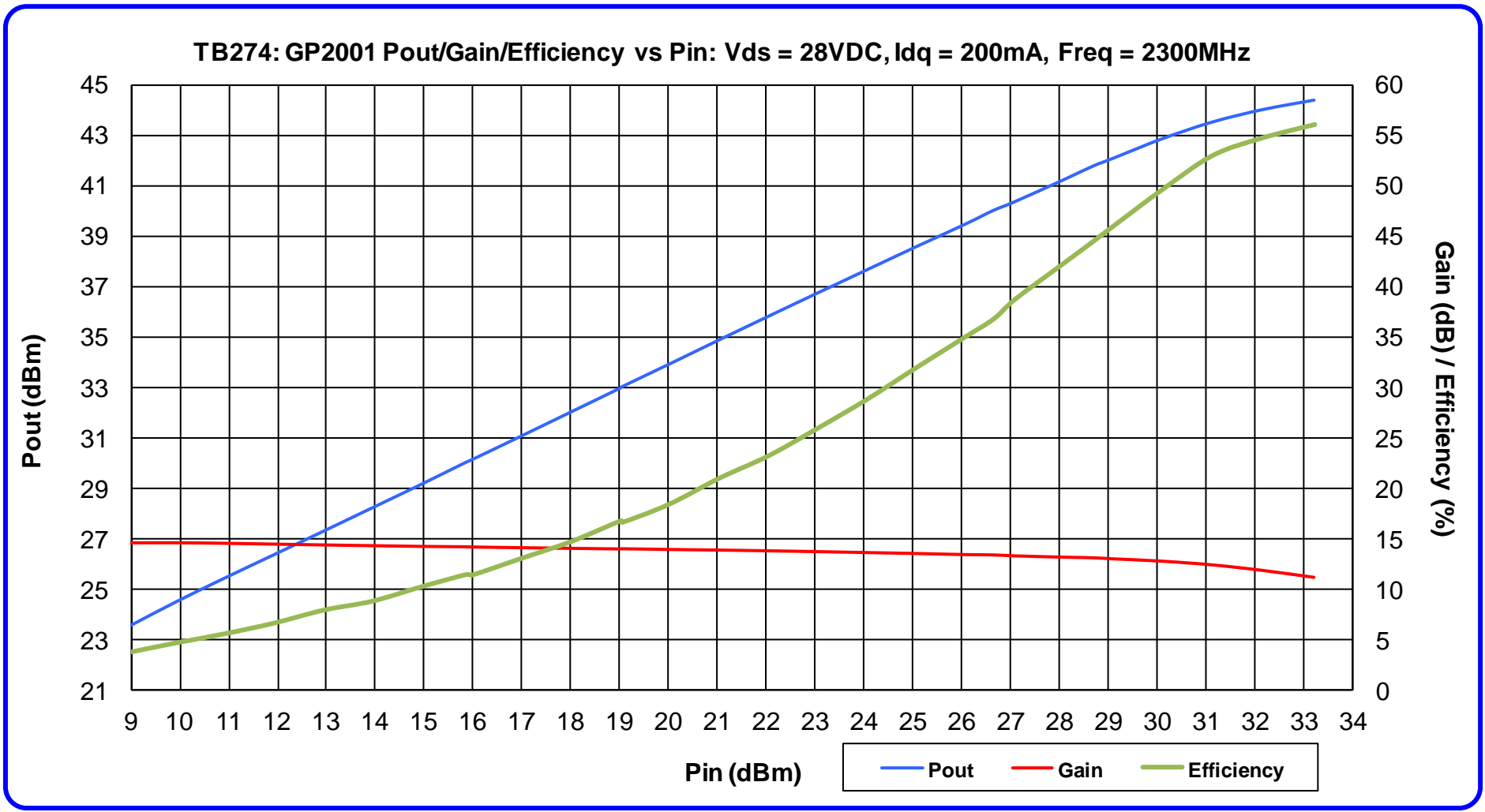


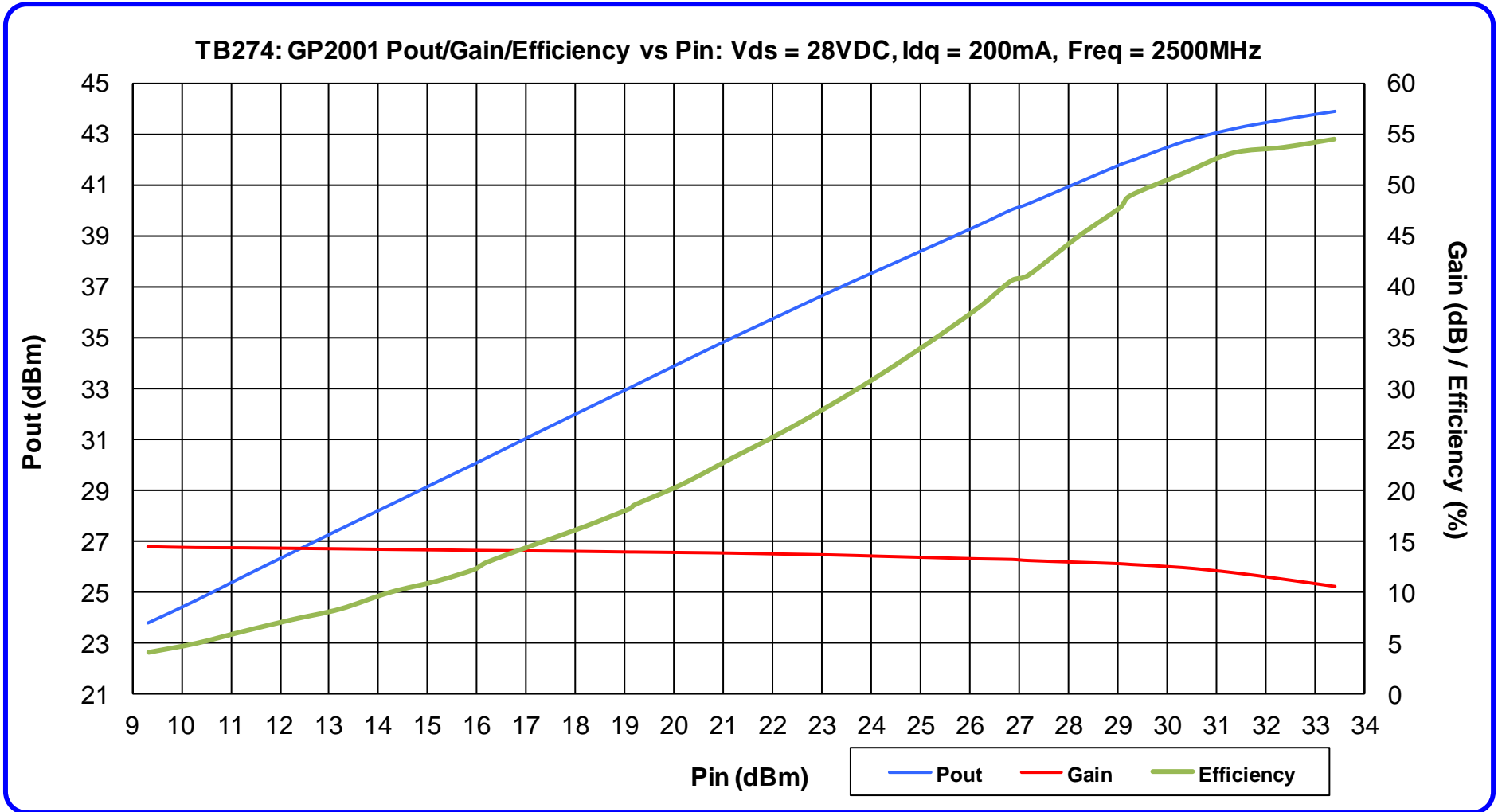


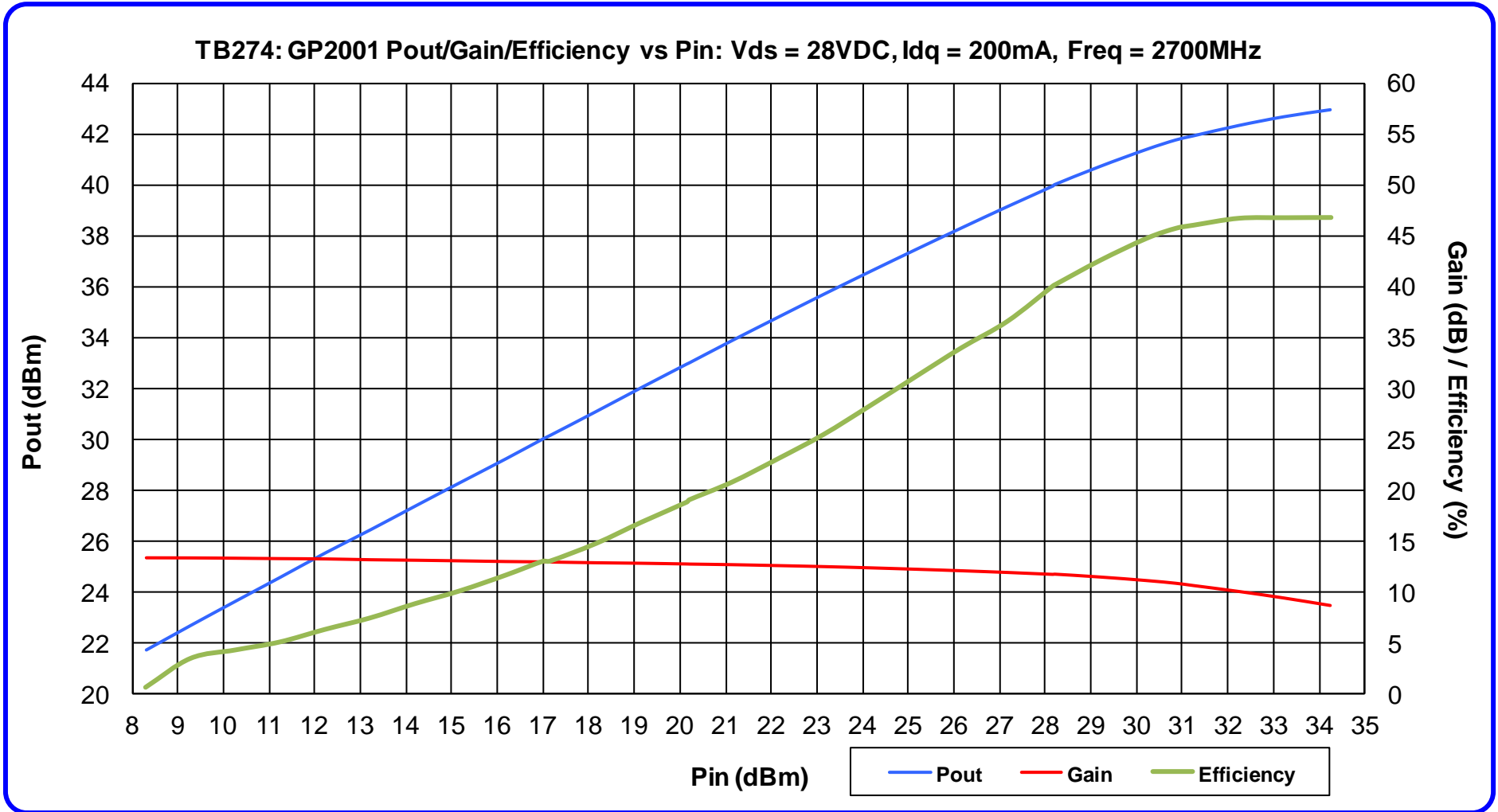


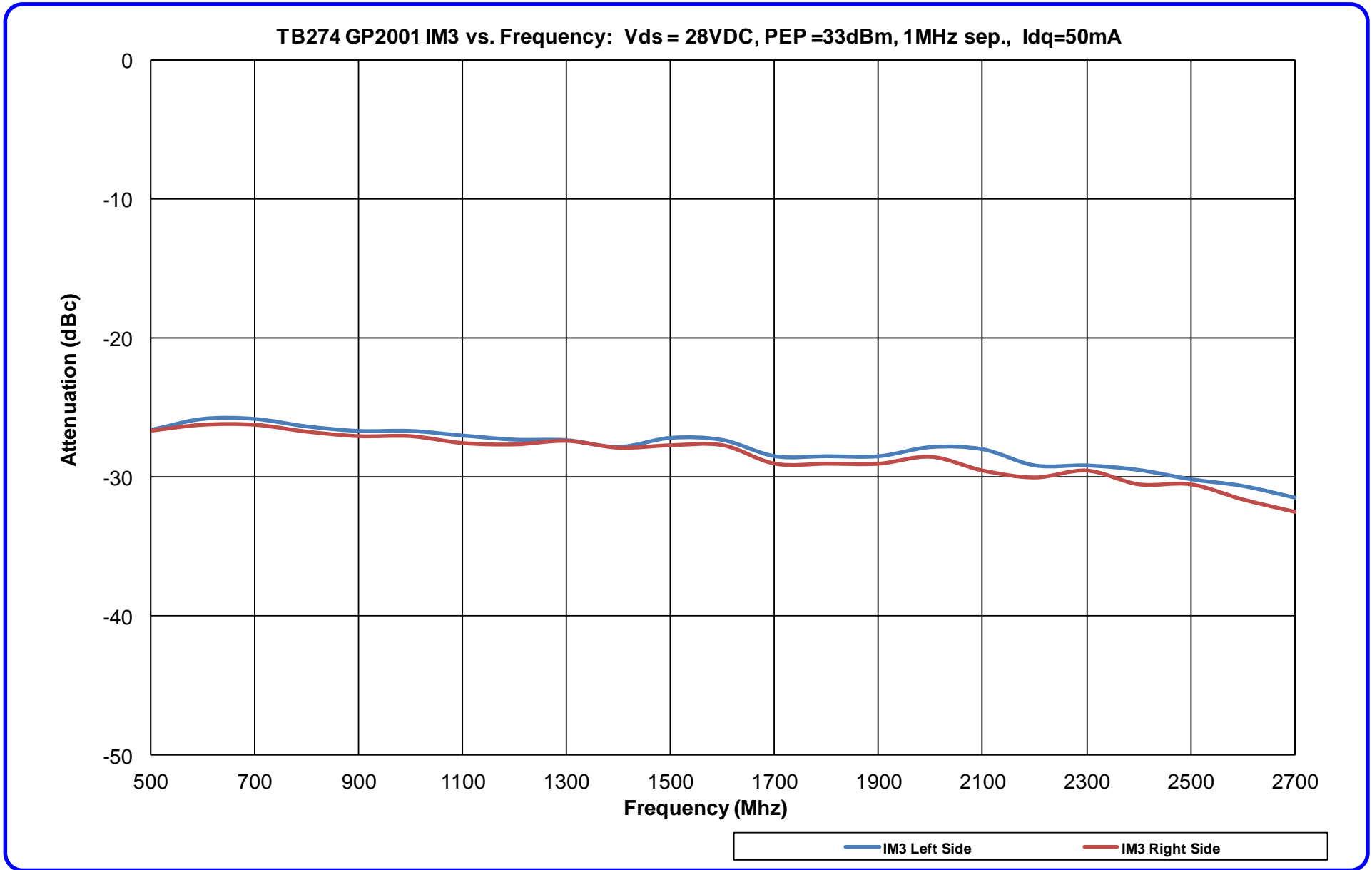


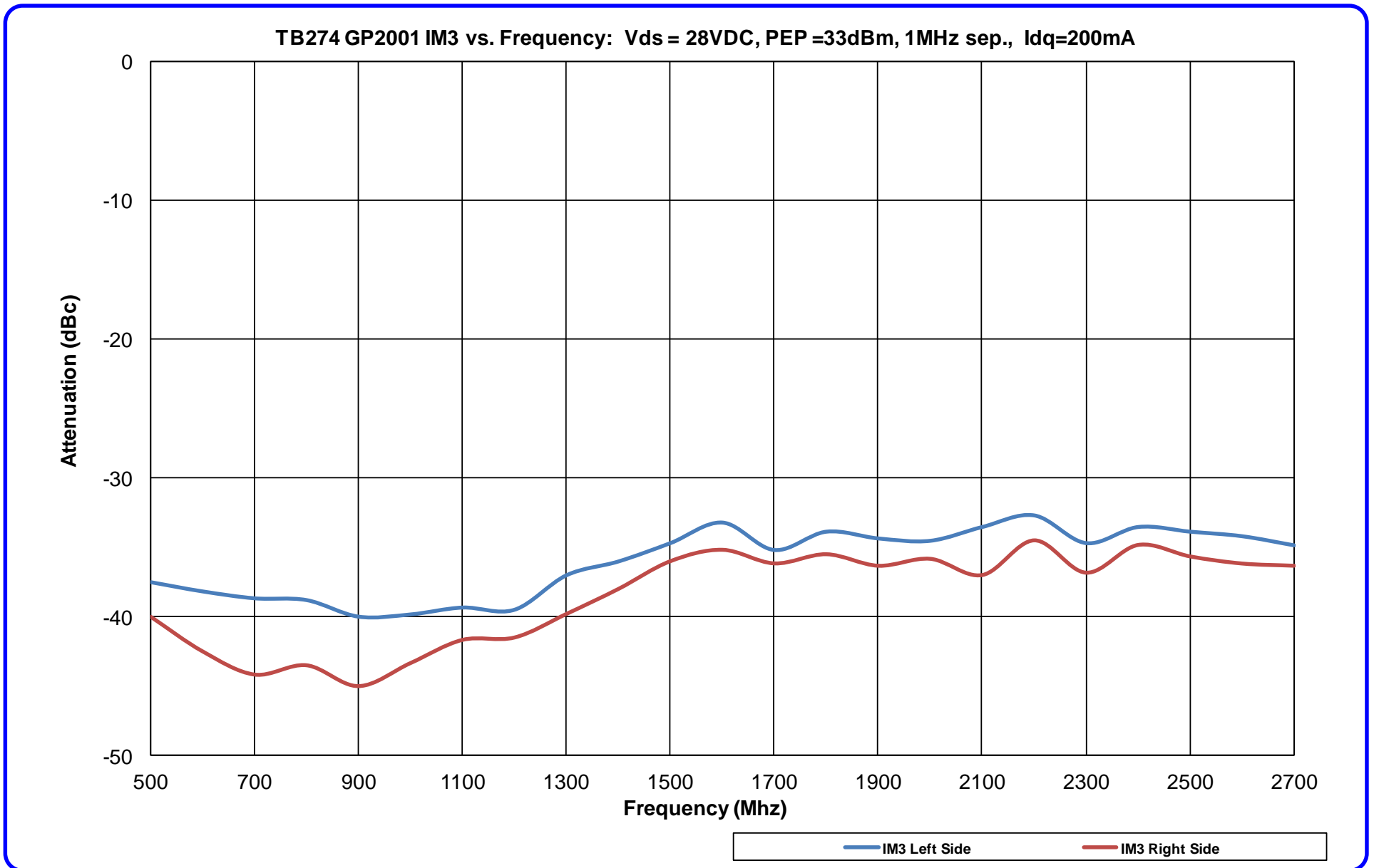






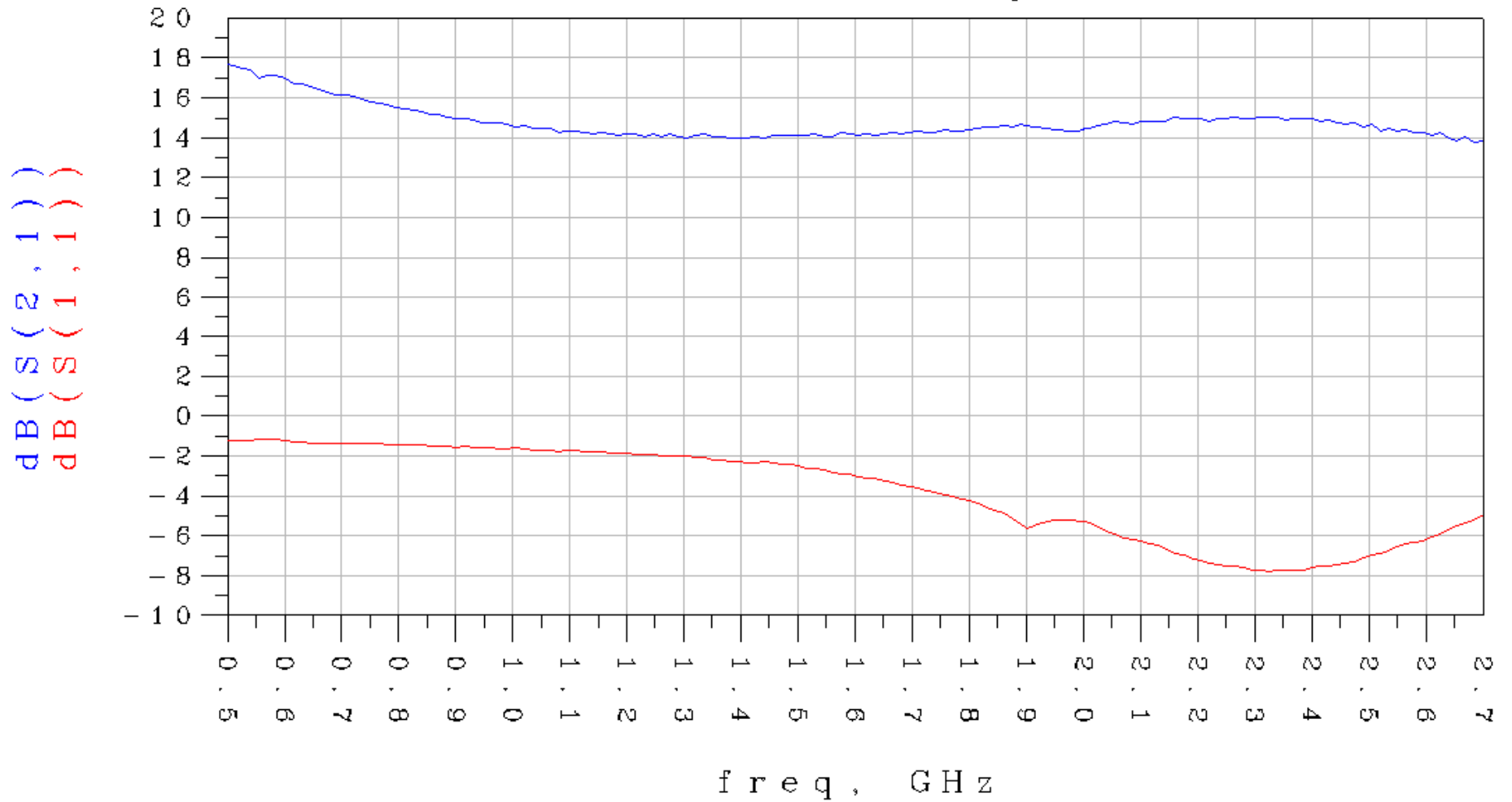


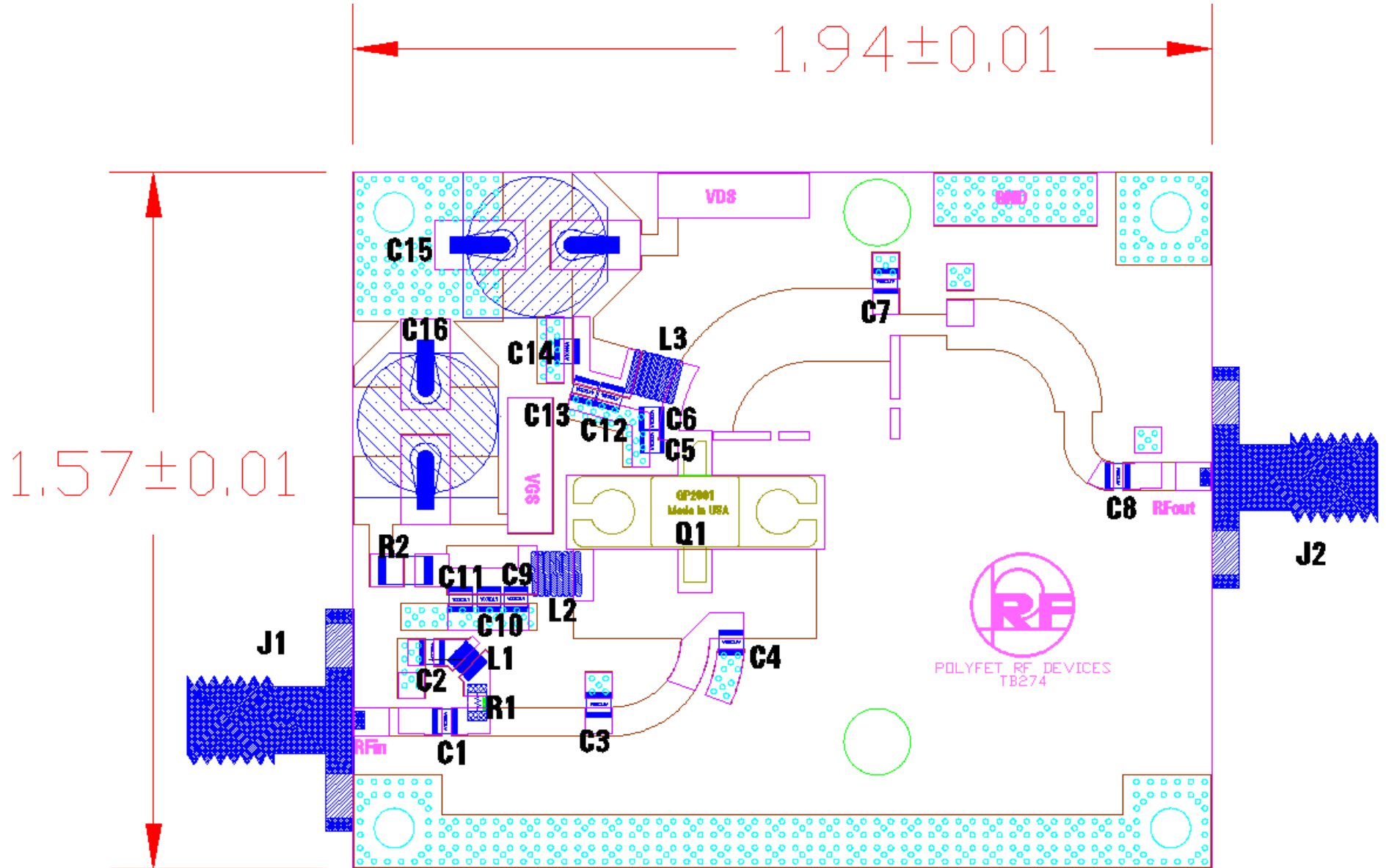




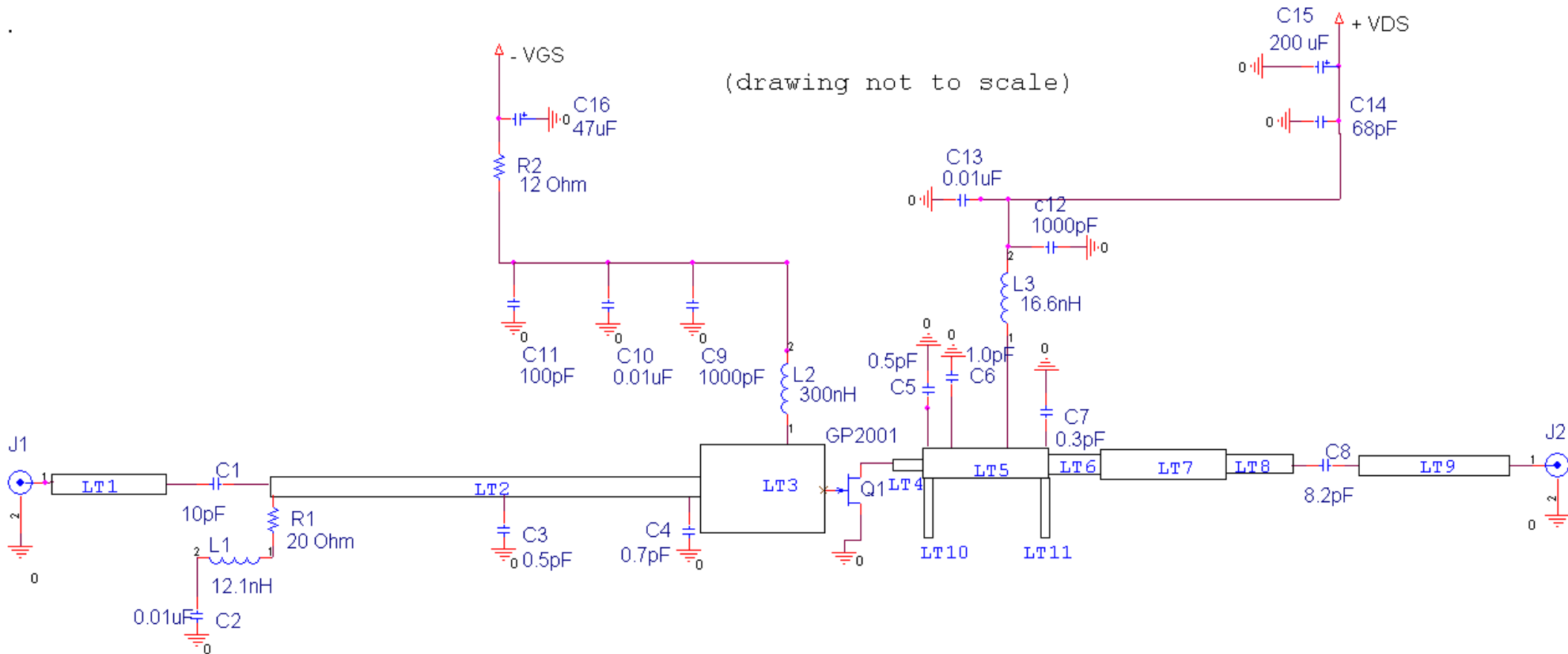
TB274 500-2700MHz Pin=-10dBm

Vds=28V Idq=200mA Vgs=-2.072VDC





(drawing not to scale)



Title		
TB274 GP2001, 500-2700Mhz, Pout=10W		
Size	Document Number	Rev
	VDS=28VDC, Vgs=-2.07VDC, Idq=200mA	A
Date:	Friday, July 19, 2019	Sheet 1 of 1

TB274			
NOMENCLATURE	DESCRIPTION	VENDER	VENDER PART #
C1	10pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C100AW301
C2, C10, C13	0.01uF Low ESR By-Pass Capacitors 0505X Series	Passive Plus, Inc	0505X103KW500
C3,C5	0.5pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C0R5AW301
C4	0.7pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C0R7AW301
C6	1.0pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C1R0AW301
C7	0.3pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C0R3AW301
C8	8.2pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C8R2AW301
C9,C12	1000pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C102FW101
C11	100pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C101FW101
C14	68pF Hi-Q Low ESR 0505C Series	Passive Plus, Inc	0505C680FW101
C15	Aluminum Electrolytic Capacitors - SMD 35Volts 220uF 20%	United Chemi-Con	EMZJ350ADA221MHA0G
C16	Aluminum Electrolytic Capacitors - SMD 47UF 35V TK SMD	Panasonic	EE-TK1V470P
R1	20 Ohms 1/8W 0805 SMD	Rohm Semiconductor	MCR10EZHZJ200
R2	ND3-1206WA 12 OHM 5%	International Manufacturing Services Inc., (IMS)	ND3-1206WA12R0J
L1	12.1nH Inductors-0908SQ Series	Coilcraft, Inc	0908SQ-12NGLB
L2	330nH @ 25 MHz 5Chip Inductors-1008CS Series	Coilcraft, Inc	1008CS-331XJB
L3	16.6nH Inductors-0908SQ Series	Coilcraft, Inc	0908SQ-17NGLB
TL1	Dimensions (L x W) 0.200" X 0.0648"	-----	-----
TL2	Dimensions (L x W) 0.710" X 0.0648"	-----	-----
TL3	Dimensions (L x W) 0.203" X 0.550"	-----	-----
TL4	Dimensions (L x W) 0.078" X 0.078"	-----	-----
TL5	Dimensions (L x W) 0.600" X 0.166"	-----	-----
TL6	Dimensions (L x W) 0.214" X 0.049"	-----	-----
TL7	Linear Taper L=.500" W1= 0.114", W2= 0.090"	-----	-----
TL8	Dimensions (L x W) 0.202" X 0.0648"	-----	-----
TL9	Dimensions (L x W) 0.1018" X 0.0648"	-----	-----
TL10,TL11	Stubs (L x W) 0.1767" X 0.020"	-----	-----
Q1	GaN	Polyfet RF Devices	GP2001
J1,J2	SMA Female; 4 Hole Panel Mount	Pasternack Enterprises, Inc	PE4000-SF
PCB	Hydrocarbon Ceramic R04350B Er=3.66 30mil 1/1oz copper	Rogers Corp.	RO4350B