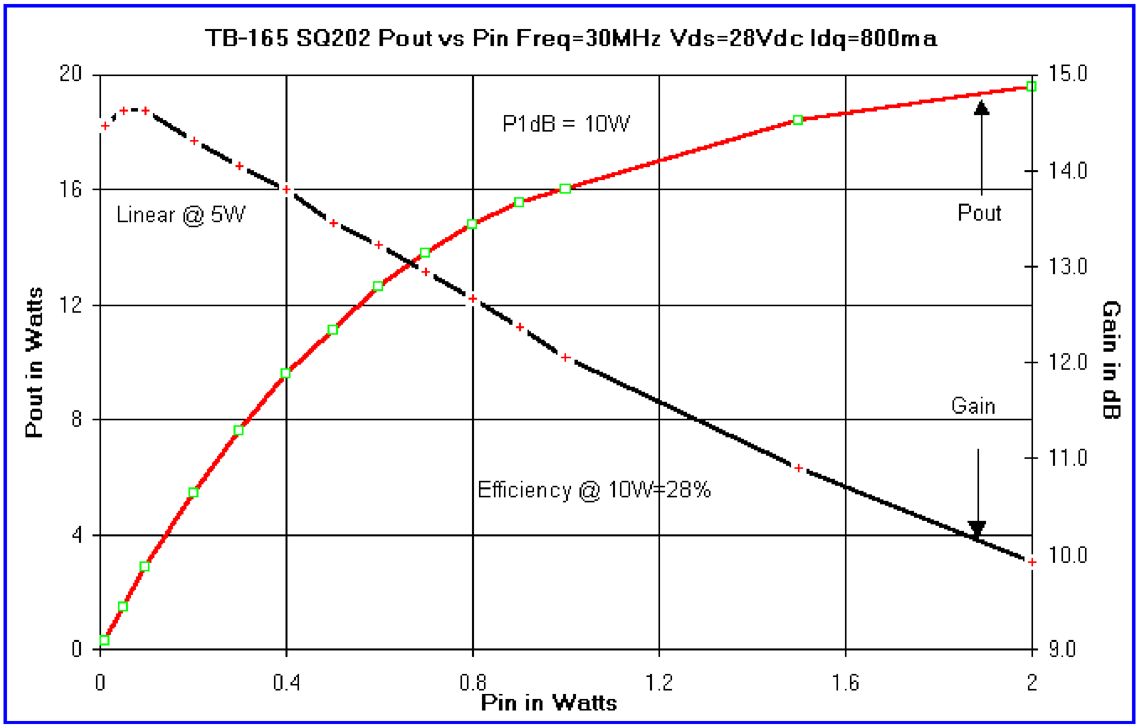
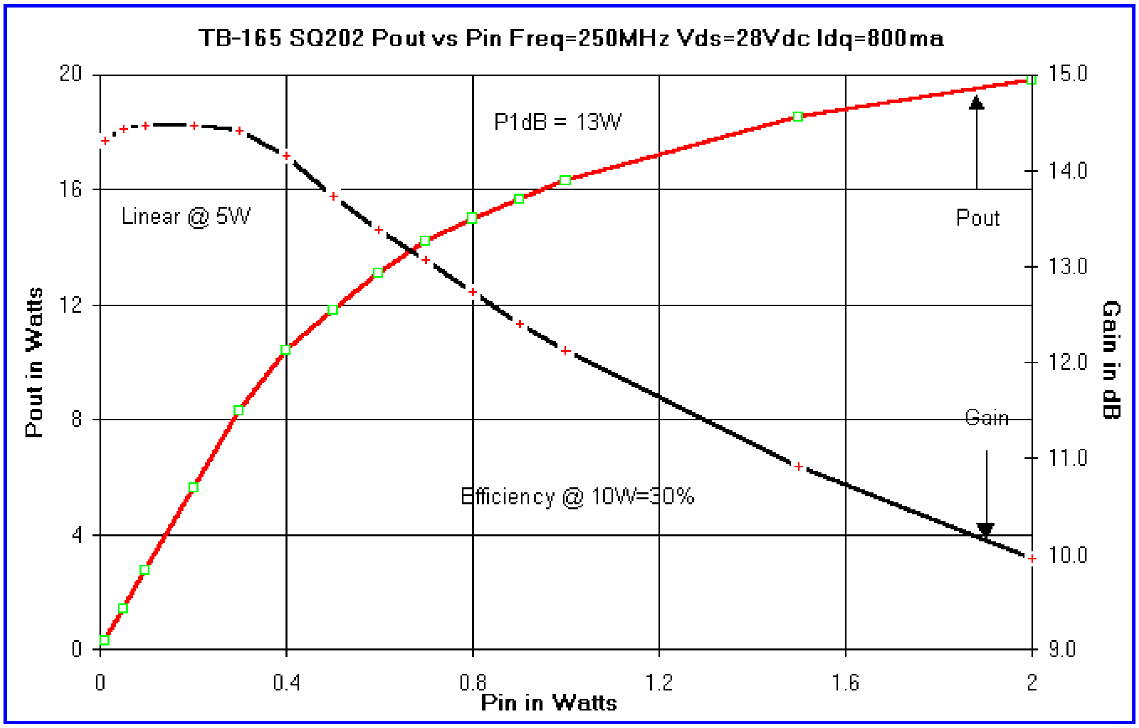
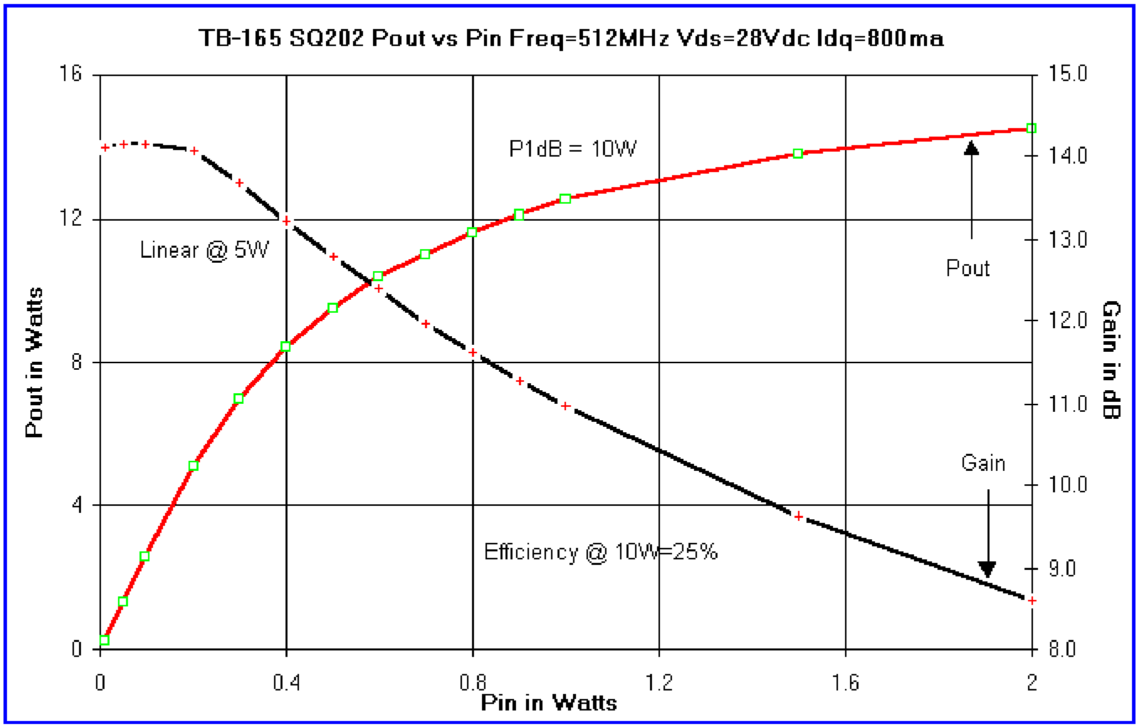
TB165



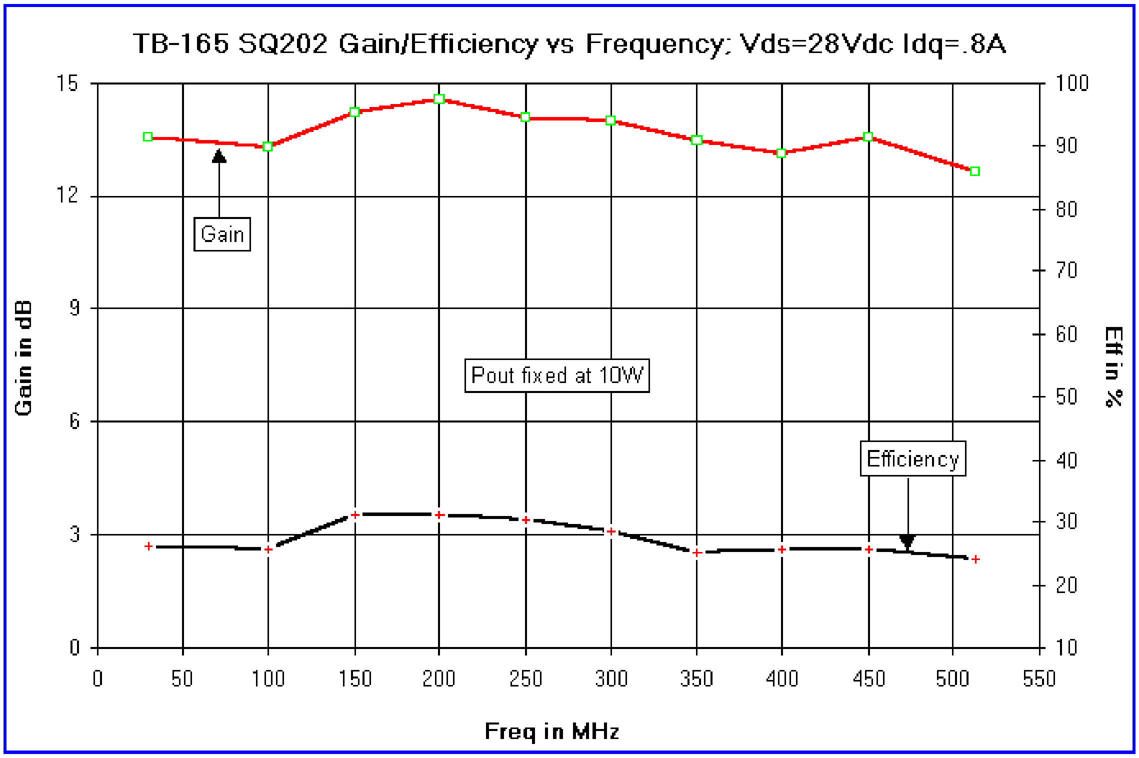
TB-165 SQ202 Pout vs Pin Freq=30MHz Vds=28Vdc Idq=800ma
Pout in Watts
0
4
8
12
16
20
Gain in dB
9.0
10.0
11.0
12.0
13.0
14.0
15.0
Pin in Watts
0
0.4
0.8
1.2
1.6
2
P1dB = 10W
Linear @ 5W
Pout
Gain
Efficiency @ 10W=28%



TB-165 SQ202 Pout vs Pin Freq=250MHz Vds=28Vdc Idq=800ma
Pout in Watts
0
4
8
12
16
20
Gain in dB
9.0
10.0
11.0
12.0
13.0
14.0
15.0
Pin in Watts
0
0.4
0.8
1.2
1.6
2
P1dB = 13W
Linear @ 5W
Pout
Gain
Efficiency @ 10W=30%

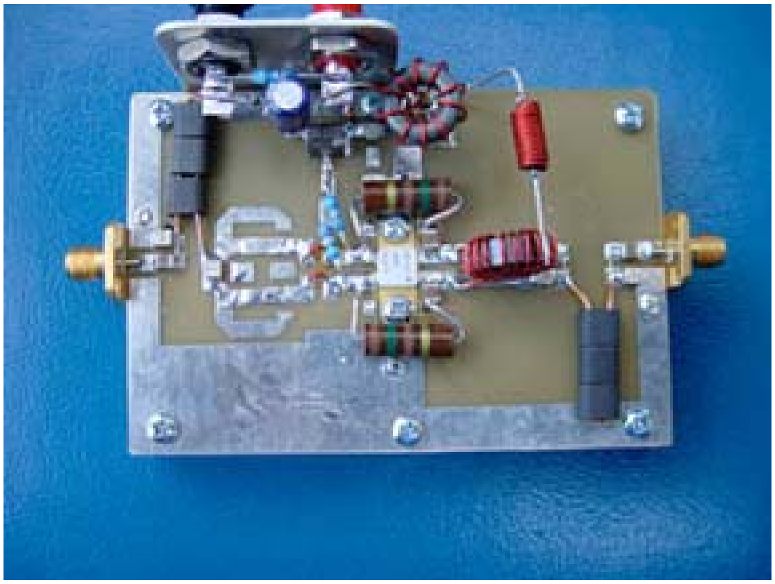


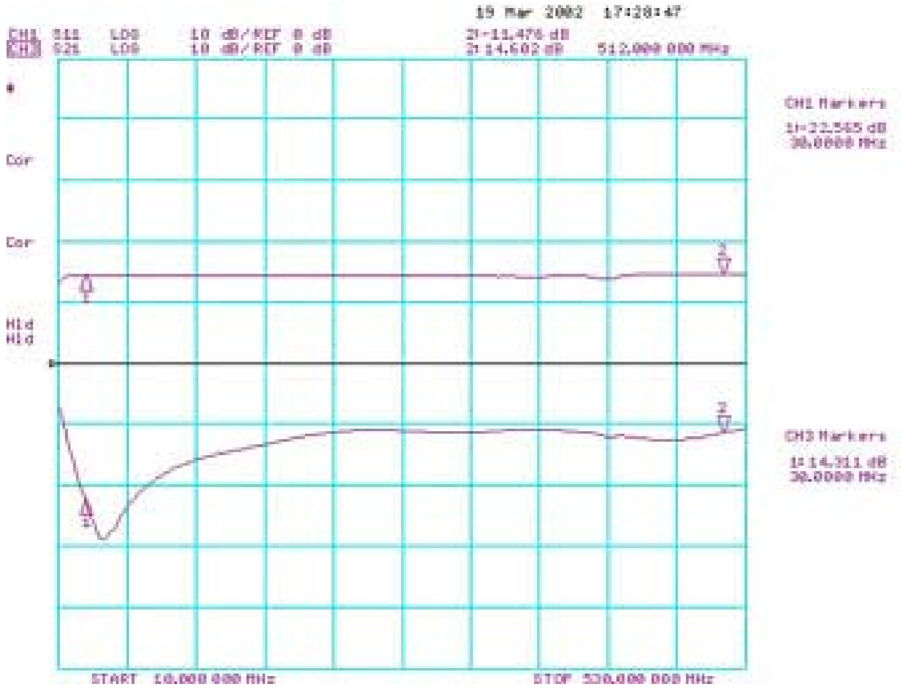
TB-165 SQ202 Pout vs Pin Freq=512MHz Vds=28Vdc Idq=800ma

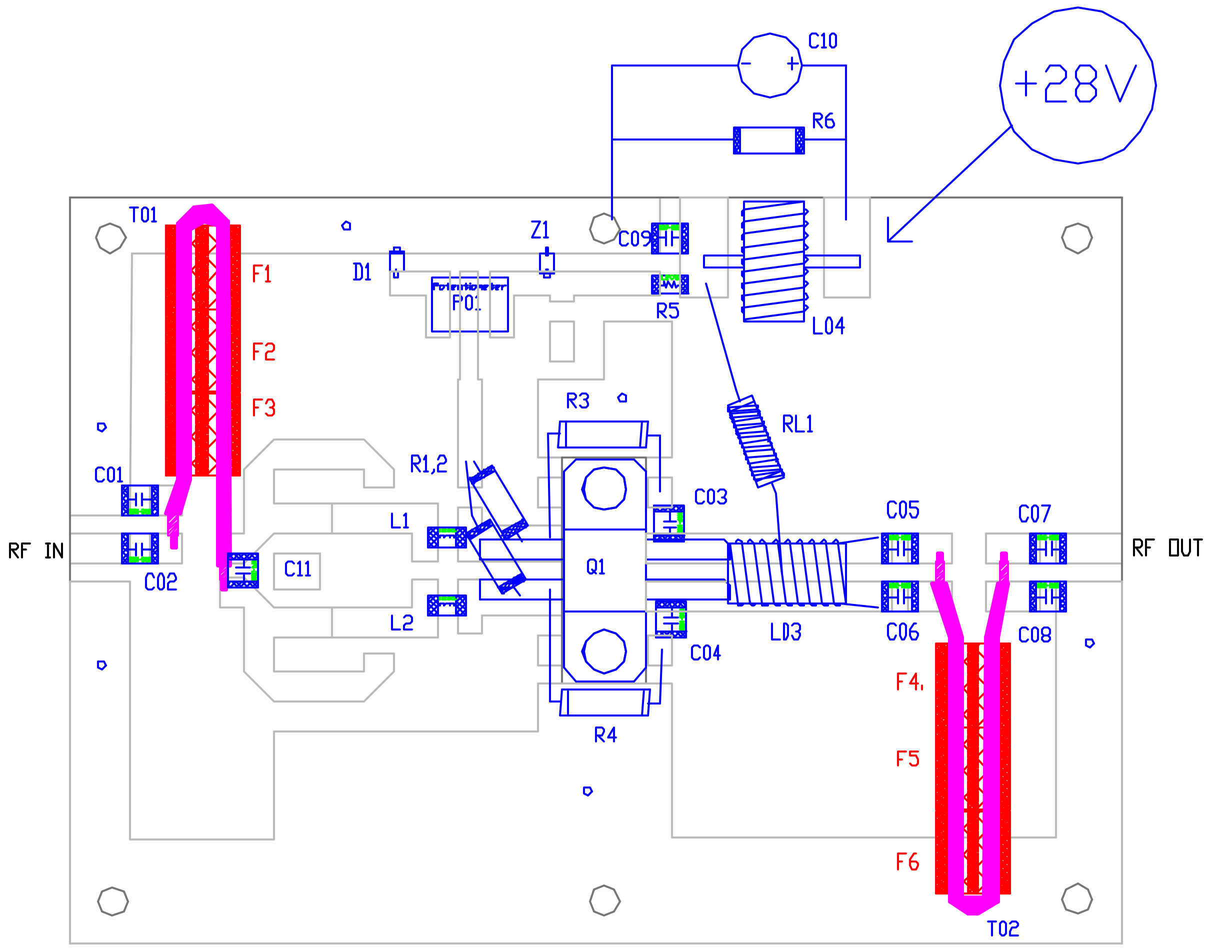


TB-165 SQ202 Gain/Efficiency vs Frequency; Vds=28Vdc Idq=.8A

TB - 165




19 Mar 2002 17:28:47
CH1 S11 LOG 10 dB/REF 0 dB
CH3 S21 LOG 10 dB/REF 0 dB
2:-11.476 dB
2: 14.602 dB 512.000 000 MHz
Cor
Cor
Hld
Hld
1
2
1
2
CH1 Markers
1:-22.565 dB
30.0000 MHz
CH3 Markers
1: 14.311 dB
30.0000 MHz
START 10.000 000 MHz
STOP 530.000 000 MHz

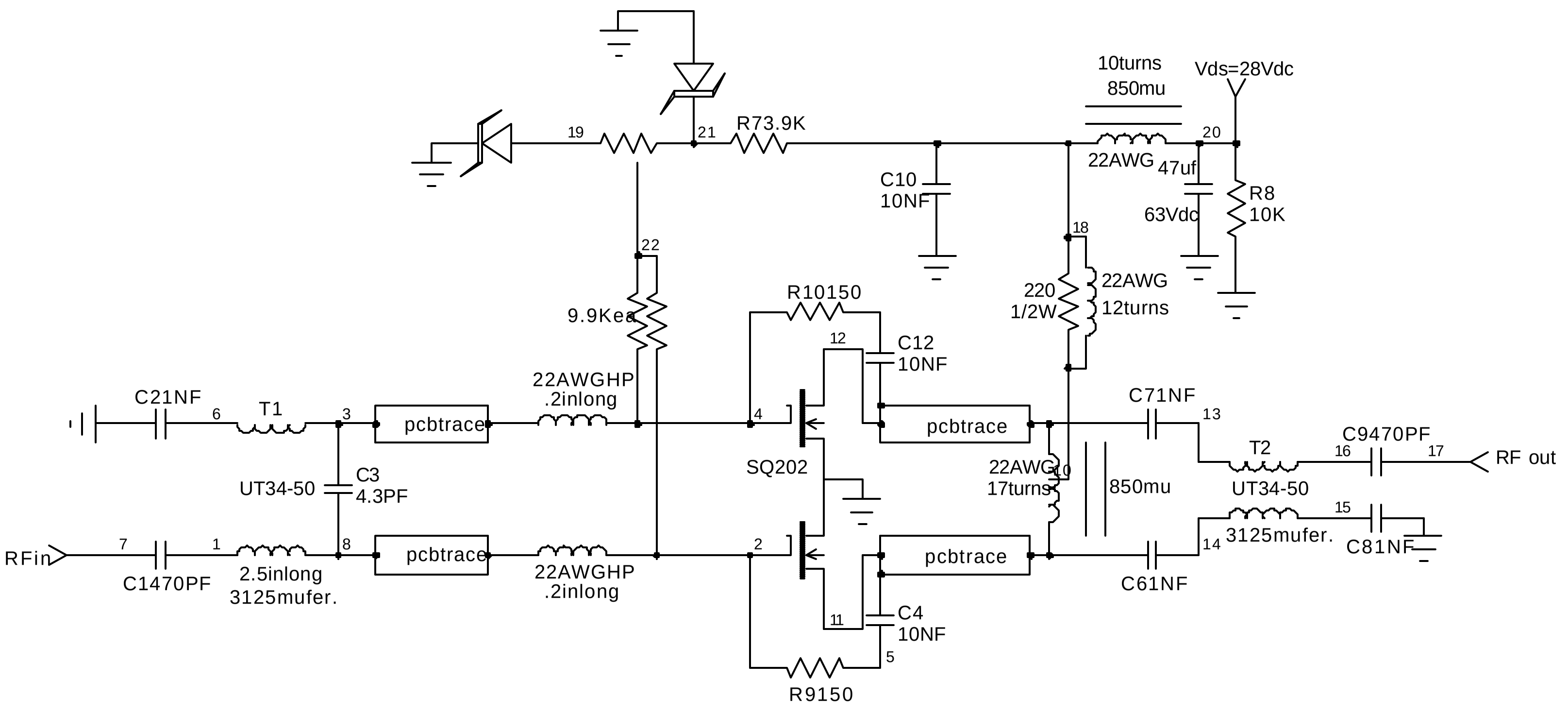


SYMBOL	VALUE	DESCRIPTION
C01,05,06,08	1000pF	ATC100B CHIP CAP.
C02,C07	470pF	ATC100B CHIP CAP.
C11	4.3pF	ATC100B CHIP CAP.
C03,04,09	10nF	ATC100B CHIP CAP.
C10	47uF	ATC100B CHIP CAP.
R1,2	9.09k	1/4W axial resistor
R3,4	150	1W axial resistor
R5	3.9k	0805 chip resistor
P01	10k	multi-turn POT
RL1	22AWG	around 220ohm 1/2W
D1	---	general purpose
Z1	7.5V	5mA Zener diode
T01,T02	2500mil	UT34-50ohm Coaxial balun
L01,L02	22AWG	22AWG .2In Long
L03	22AWG	850mu,center-tap,19 turns
L04	22AWG	850mu, 10 turns
F1-6	125mu	Amidon BN-61-2402
Q1	SQ202	Polyfet Transistor
VDD	28V	DC Power Supply
Bias	800mA	Bias Current

PCB Material : Double Side FR4
ER=3.55, H=0.032", T=0.001"

DRN BY: J.Citrolo 3/20/02
CHKD :
ELECT : J Citrolo
MECH : J Citrolo
PROC :
QUAL :
PGMS :

POLYFET RF DEVICES
30-512Mhz, 10W P1dB
SIZE FSCM NO TB165 LAYOUT REV 0
SCALE : 1 : 1 SHEET 1 OF 1



DRN BY	J.Citrolo	3/20/02
CHKD		
ELECT		
MECH		
PROC		
QUAL		
PGMS		

Polyfet RF Devices Demo Amp

TB 165 10W P1dB30-512Mhz

SIZE	FSCM NO		REV
A		SQ20228Vdc, 800ma	