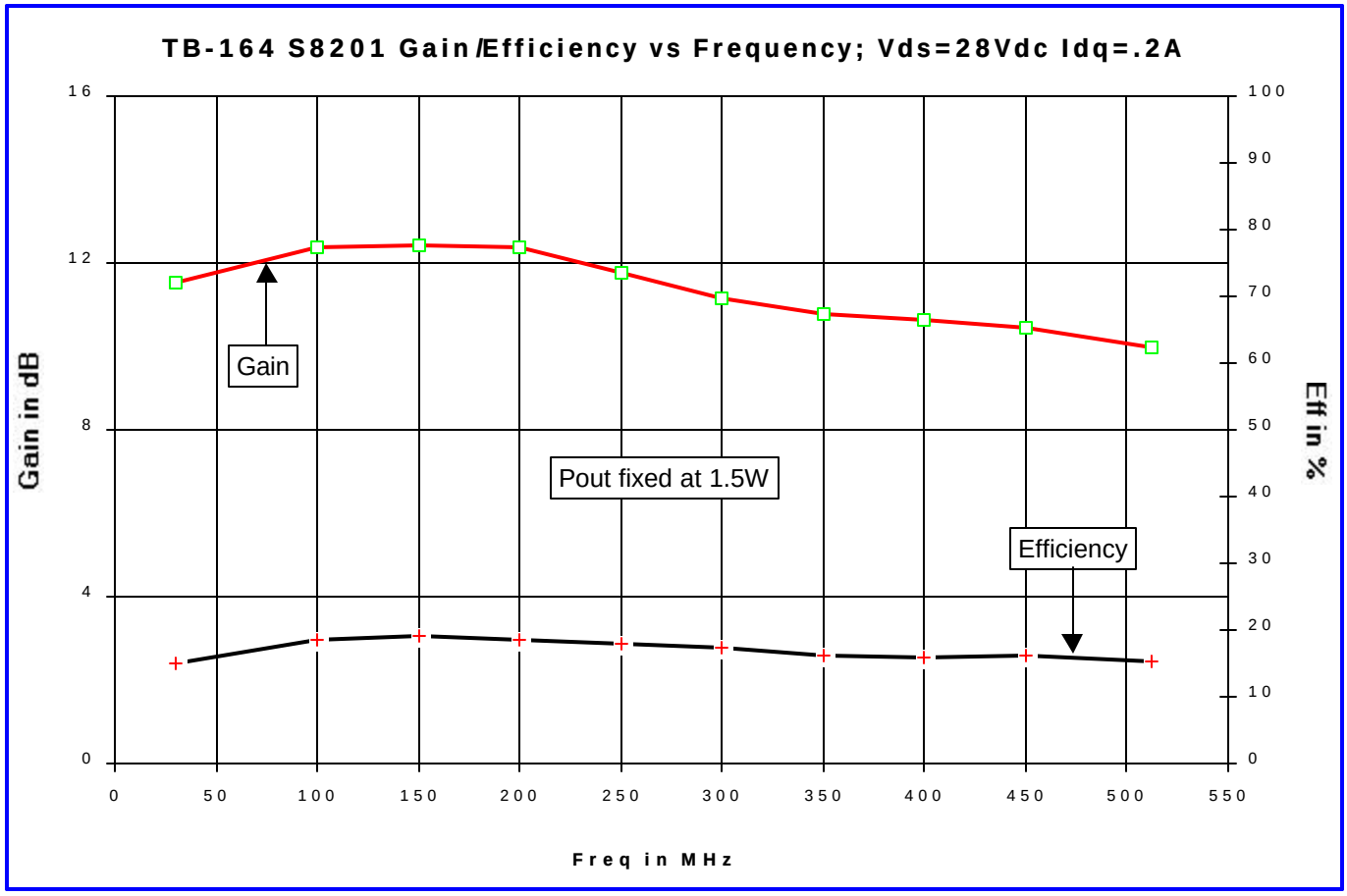
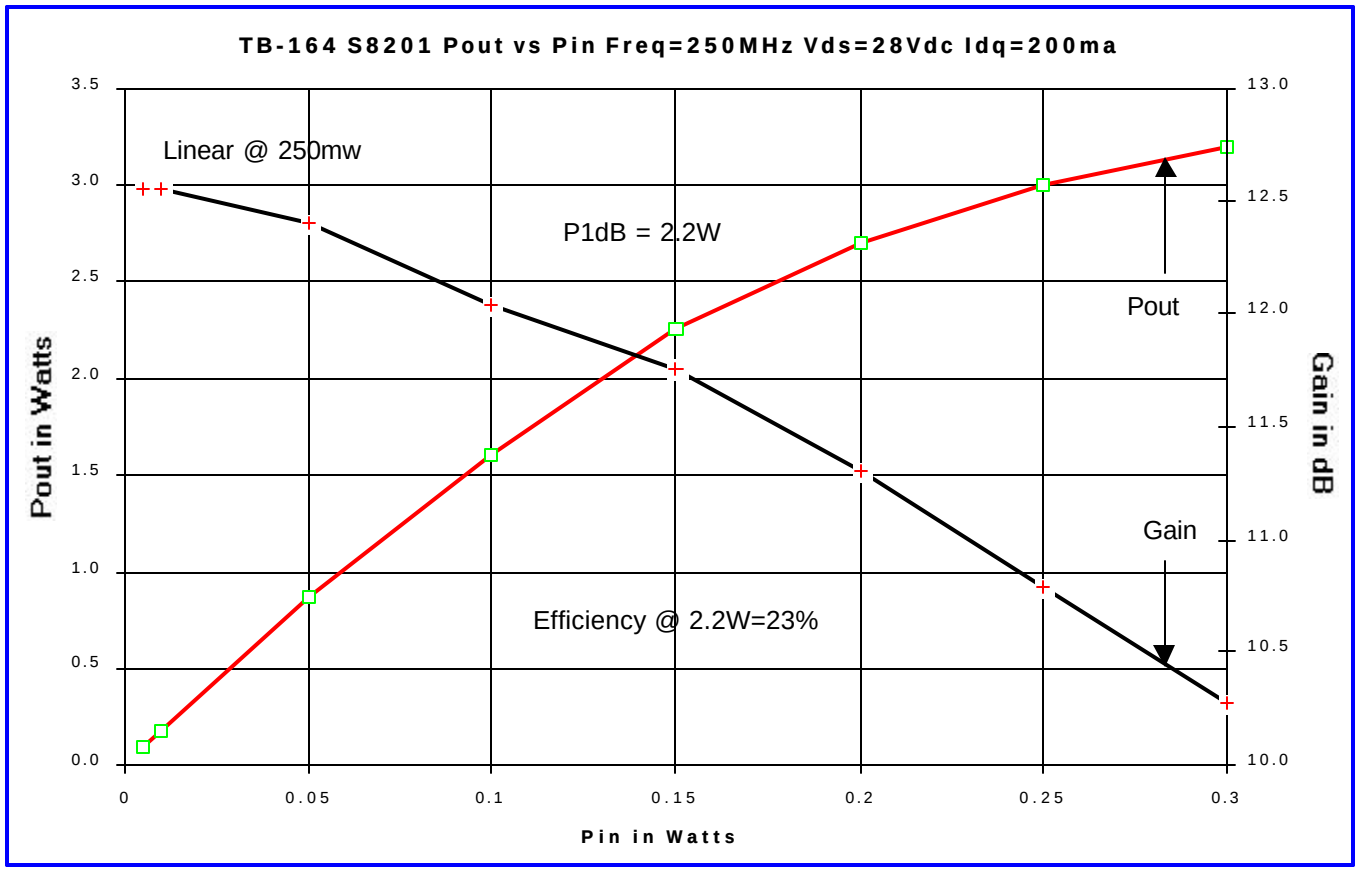
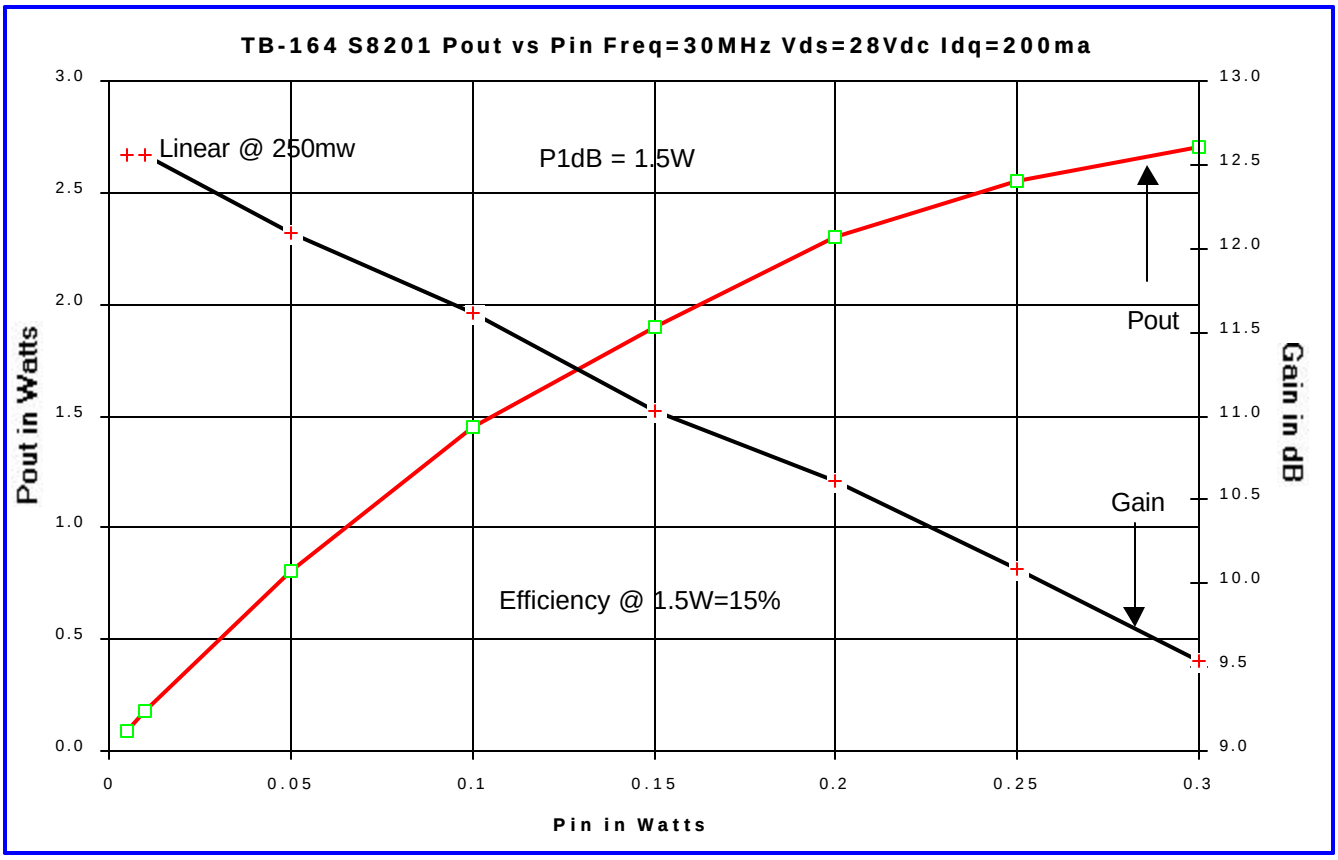
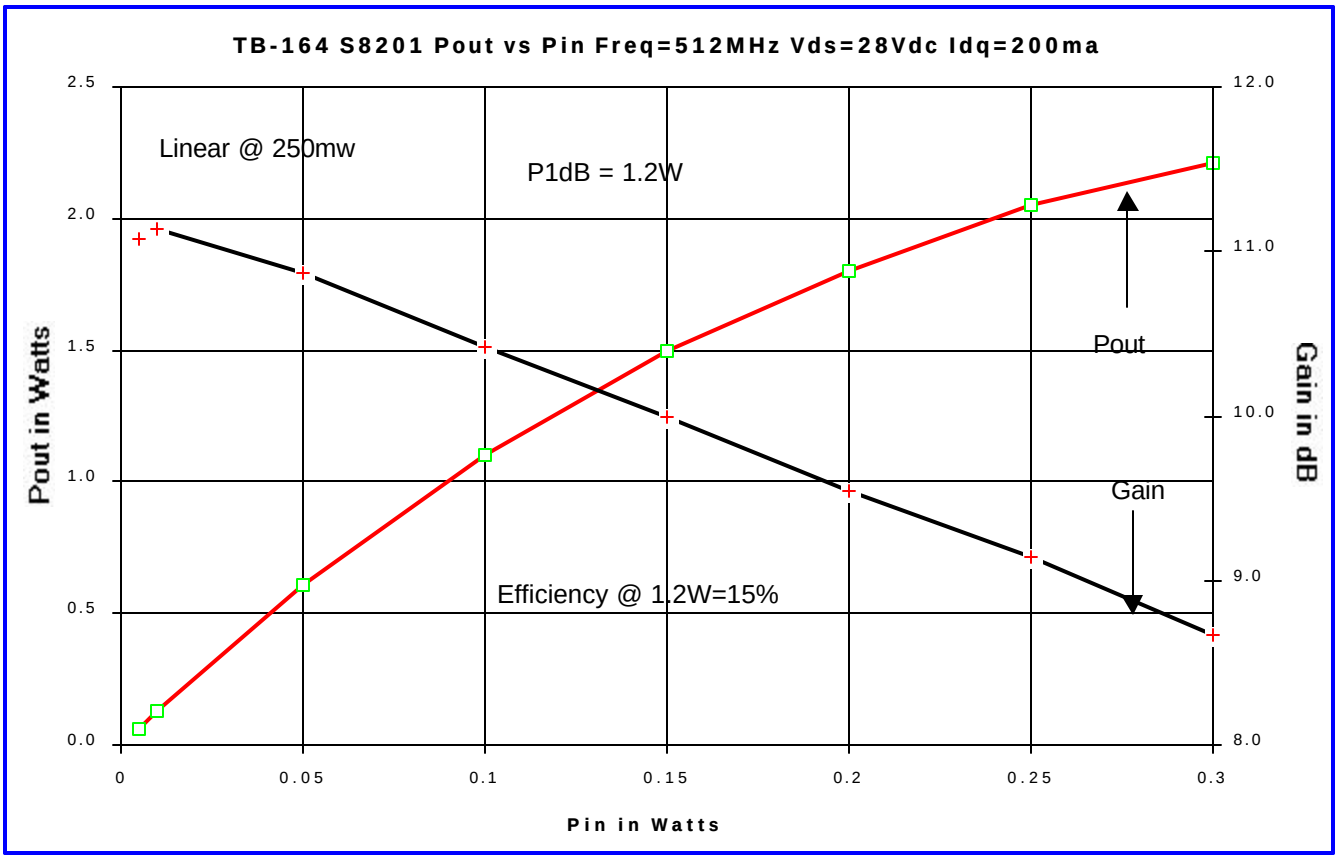
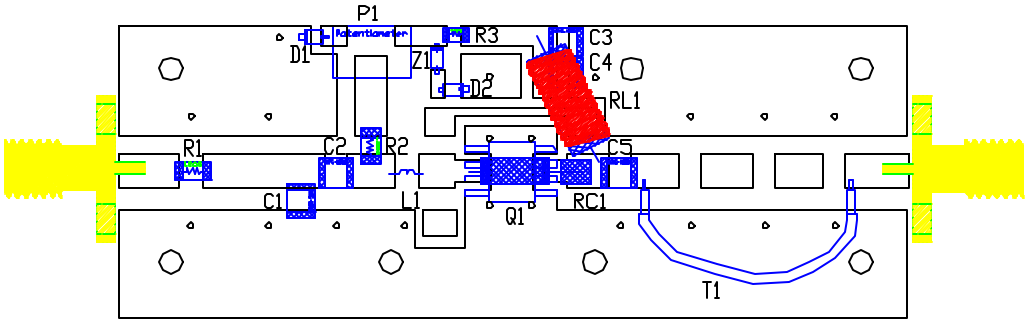

TB-164 S8201 Gain/Efficiency vs Frequency; Vds=28Vdc Idq=.2A
Gain in dB
Eff in %
Freq in MHz
Gain
Pout fixed at 1.5W
Efficiency
16
12
8
4
0
100
90
80
70
60
50
40
30
20
10
0
0
50
100
150
200
250
300
350
400
450
500
550


TB-164 S8201 Pout vs Pin Freq=250MHz Vds=28Vdc Idq=200ma
Pout in Watts
Gain in dB
Pin in Watts
Linear @ 250mw
P1dB = 2.2W
Pout
Gain
Efficiency @ 2.2W=23%
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
13.0
12.5
12.0
11.5
11.0
10.5
10.0
0
0.05
0.1
0.15
0.2
0.25
0.3


TB-164 S8201 Pout vs Pin Freq=30MHz Vds=28Vdc Idq=200ma
Linear @ 250mw
P1dB = 1.5W
Pout
Gain
Efficiency @ 1.5W=15%
Pout in Watts
Gain in dB
Pin in Watts
3.0
2.5
2.0
1.5
1.0
0.5
0.0
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
0
0.05
0.1
0.15
0.2
0.25
0.3


TB-164 S8201 Pout vs Pin Freq=512MHz Vds=28Vdc Idq=200ma
Linear @ 250mw
P1dB = 1.2W
Pout
Gain
Efficiency @ 1.2W=15%
Pout in Watts
Gain in dB
Pin in Watts
2.5
2.0
1.5
1.0
0.5
0.0
12.0
11.0
10.0
9.0
8.0
0
0.05
0.1
0.15
0.2
0.25
0.3



SYMBOL	VALUE	DESCRIPTION
C1	4.3pF	ATC100B CHIP CAP.
C2,C3,C5	0.01uF	ATC100B CHIP CAP.
C4	1000pF	ATC100B CHIP CAP.
R1	2	1206 chip resistor
R2	2.2k	1206 chip resistor
R3	3.9k	0805 chip resistor
P01	10k	multi-turn POT
RL1	22AWG	around 22 ohm 1/2W
RC1	220ohm axial, in series with .01uF ATC100B	
T1	1.5"	UT85-50ohm Coaxial
D1,D2	----	general purpose diode
Z1	7.5V	5mA Zener diode
L1	22AWG	ID:0.08: 2turn coil
Q1	S8201	Polyfet Transistor
VDD	28V	DC Power Supply
Bias	400mA	Bias Current

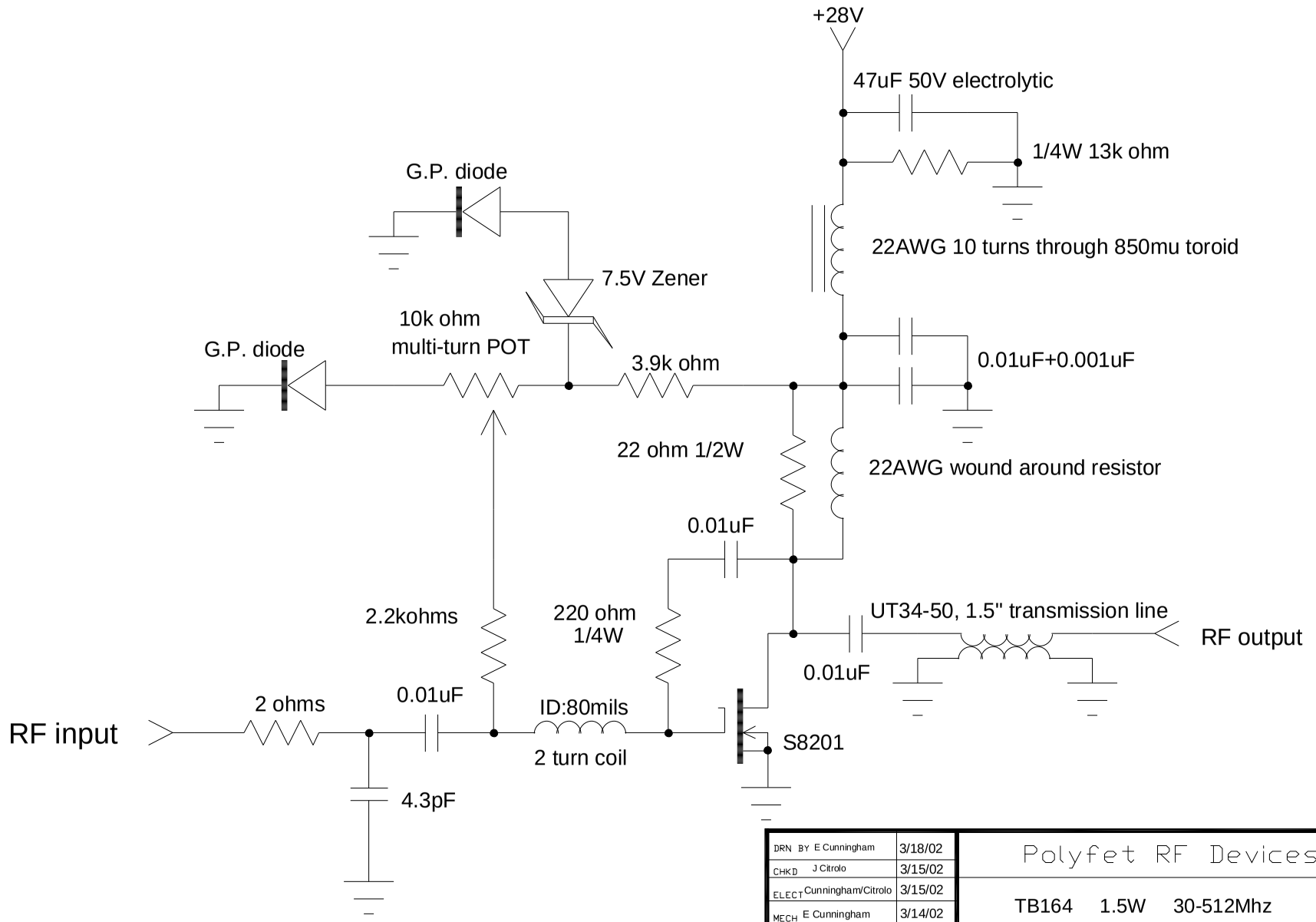
PCB Material : Double Side FR4
ER=3.55, H=0.032", T=0.001"

DRN BY	Cunningham	3/15/02
CHKD		
ELECT	Citrolo/Cunningham	3/15/02
MECH	Cunningham	3/13/02
PROC		
QUAL		
PGMS		

Polyfet RF Devices

S8201 50-512MHz

SIZE	SCALE		REV
	1:1	TB164 LAYOUT	0



DRN BY E Cunningham	3/18/02	Polyfet RF Devices	
CHKD J Citrolo	3/15/02	TB164 1.5W 30-512Mhz	
ELECT Cunningham/Citrolo	3/15/02	SIZE A / FSCM NO. / S8201	REV 0
MECH E Cunningham	3/14/02		
PROC			
QUAL			
PGMS