

Polyfet RF Devices



TB216

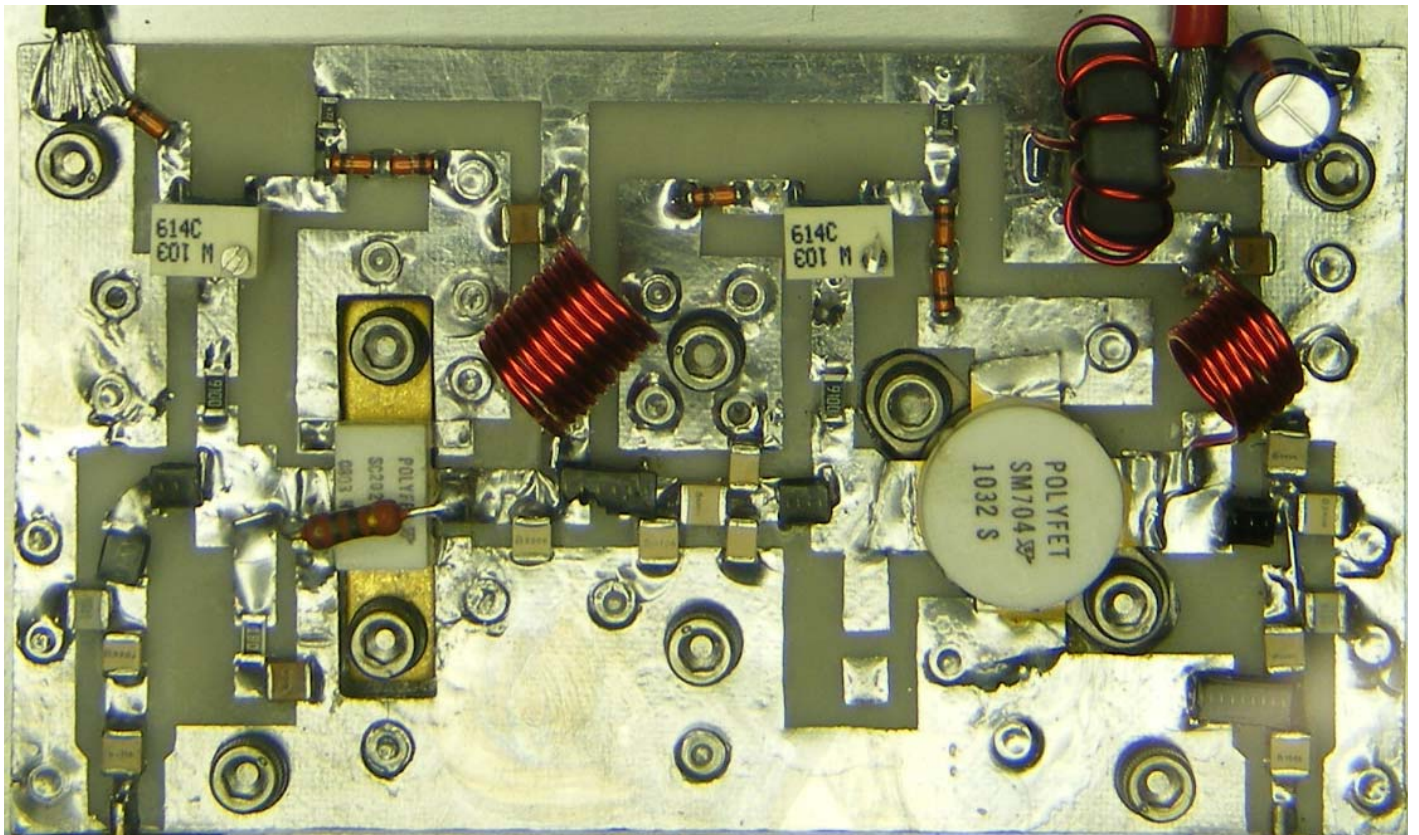
Vds=28Vdc

Idq=1.2A

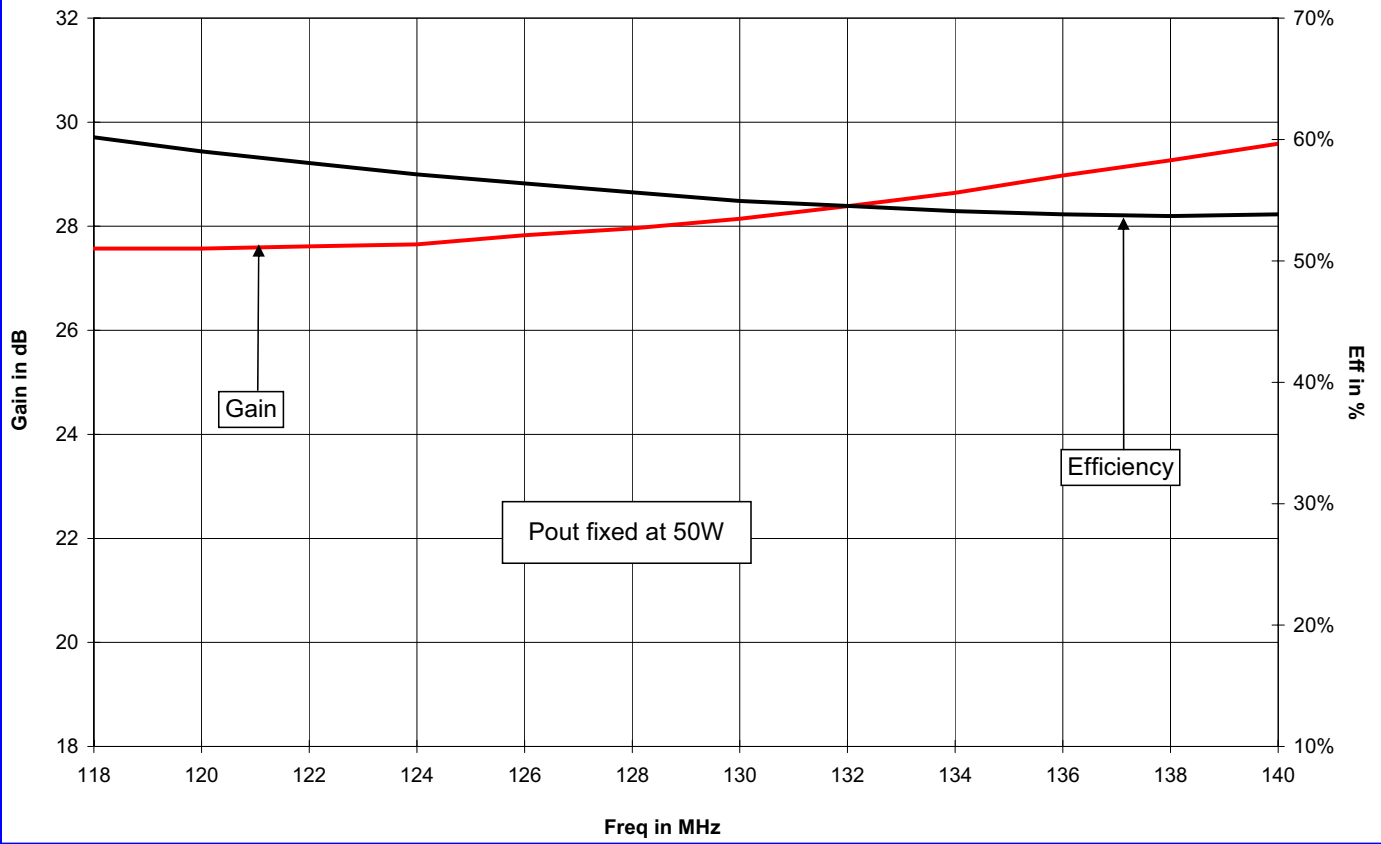
Efficiency at 50W=50% min

SC202, SM704

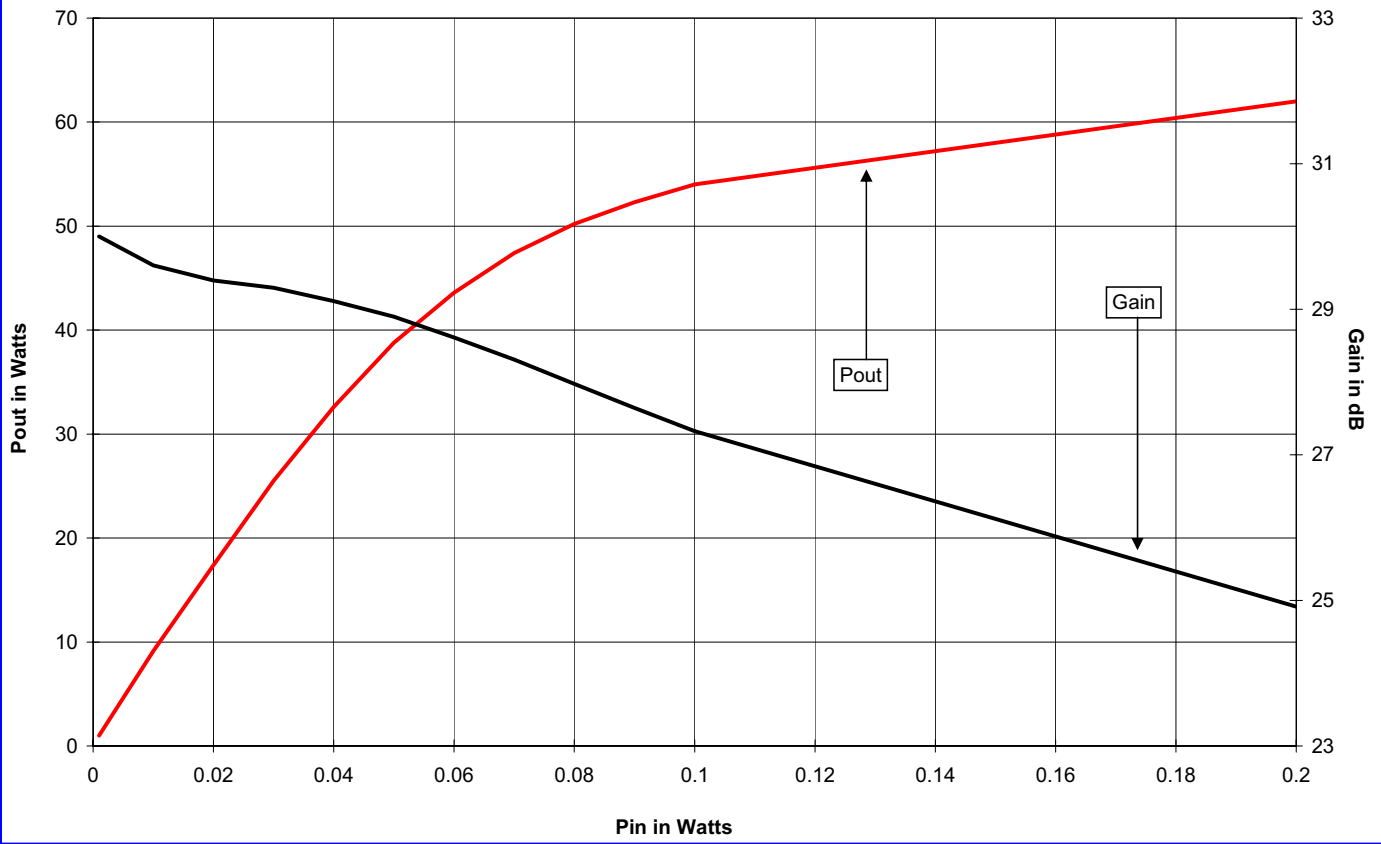
Frequency=118-140 MHz



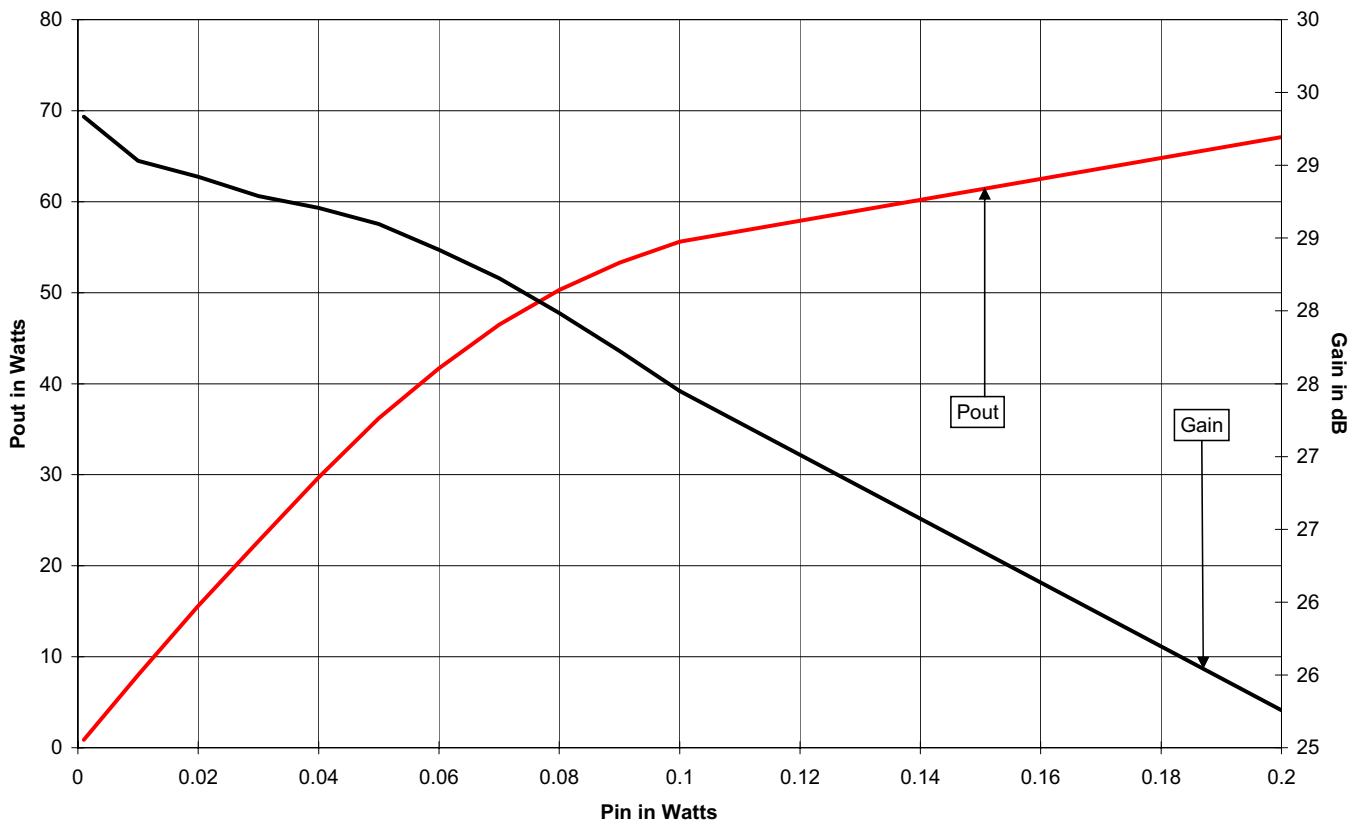
Gain/Efficiency vs Frequency: VDS=28Vdc, Idq=1.2A



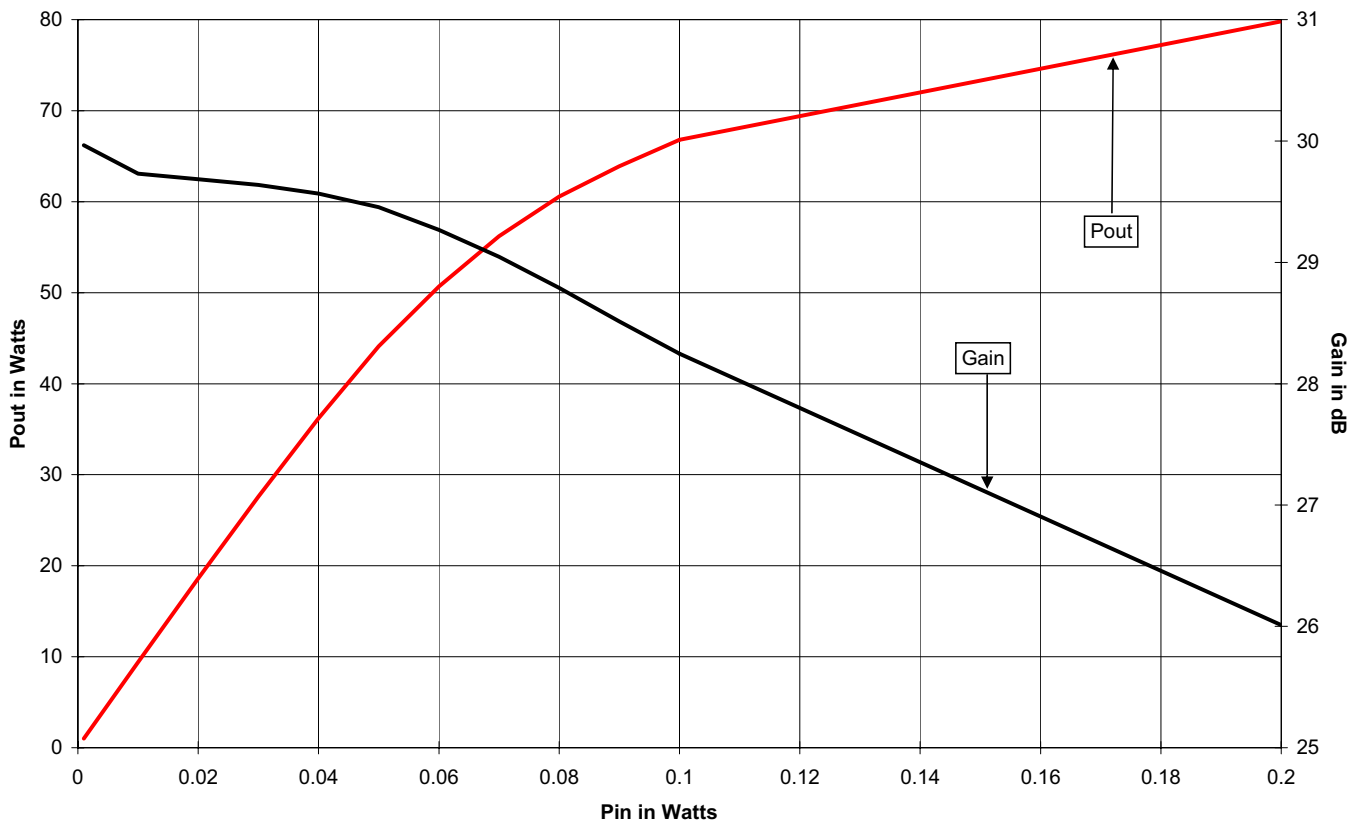
Pout/Gain vs Pin: Frequency=118MHz, VDS=28Vdc, Idq=1.2A



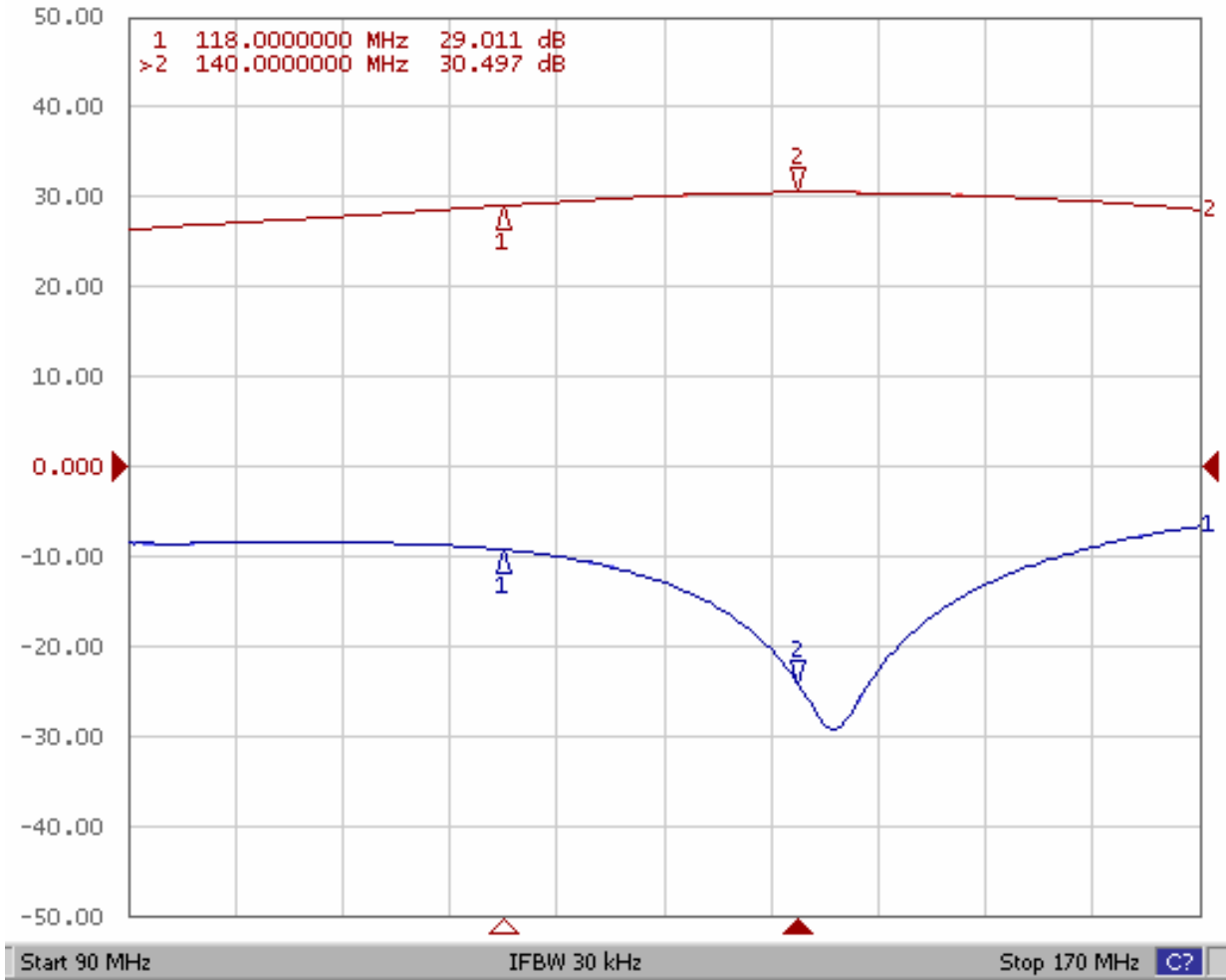
Pout/Gain vs Pin: Frequency=130MHz, VDS=28Vdc, Idq=1.2A

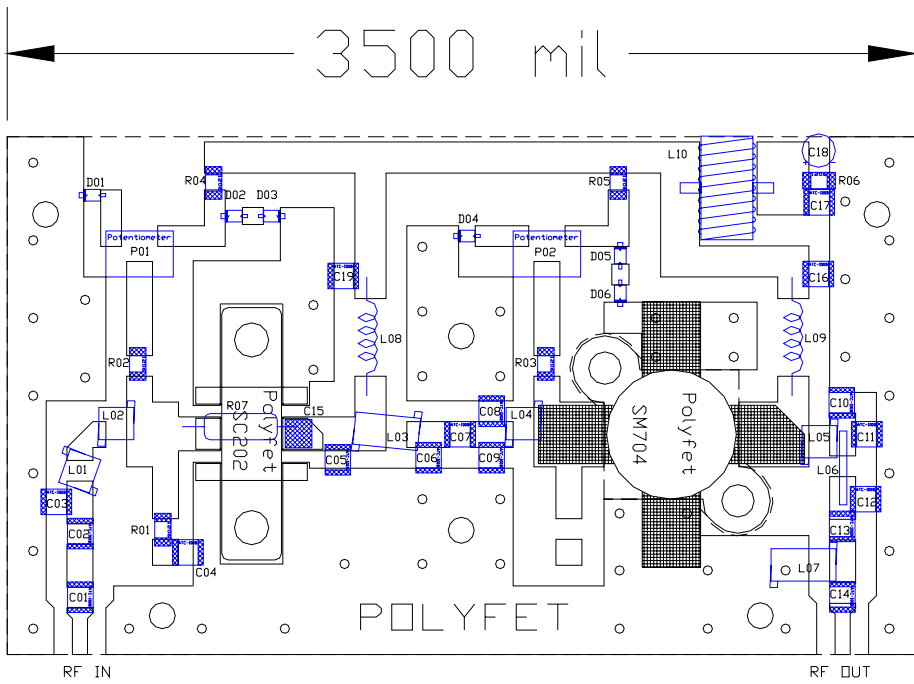


Pout/Gain vs Pin: Frequency=140MHz, VDS=28Vdc, Idq=1.2A



Tr1 S11 Log Mag 10.00dB/ Ref 0.000dB [F1 D&M]
Tr2 S21 Log Mag 10.00dB/ Ref 0.000dB [ER D&M]





| SYMBOL | VALUE | DESCRIPTION |
|--------------------|--------|-------------------------|
| C01 | 470pF | ATC-700B Chip Cap. |
| C02 | 82pF | ATC-100B Chip Cap. |
| C03 | 39pF | ATC-100B Chip Cap. |
| C04, C16, C17, C19 | 10nF | ATC-200B Chip Cap. |
| C05 | 33pF | ATC-100B Chip Cap. |
| C06 | 47pF | ATC-100B Chip Cap. |
| C07, C13 | 68pF | ATC-100B Chip Cap. |
| C08 | 22pF | ATC-100B Chip Cap. |
| C09 | 30pF | ATC-100B Chip Cap. |
| C10 | 36pF | ATC-100B Chip Cap. |
| C11 | 24pF | ATC-100B Chip Cap. |
| C12 | 51pF | ATC-100B Chip Cap. |
| C14 | 1nF | ATC-700B Chip Cap. |
| C15 | 10nF | ATC-200B Chip Cap. |
| C18 | 47uF | 63V, Elec. Cap. |
| L01 | 12.5nH | COILCRAFT A04TGL |
| L02 | 8.0nH | COILCRAFT A03TGL |
| L03 | 17.5nH | COILCRAFT B06TGL |
| L04 | 12.5nH | COILCRAFT A04TGL |
| L05 | 8.0nH | COILCRAFT A03TGL |
| L06 | SHORT | #22 AWG, Length=0.25in. |
| L07 | 35.5nH | COILCRAFT B09TGL |
| L08 | 10Turn | #20AWG, ID=0.25in. |
| L09 | 6turn | #20AWG, ID=0.25in. |
| L10 | 22AWG | 7X through FT-50-61 |
| R01 | 18 | 1210 Chip Res. |
| R02, R03 | 910 | 1210 Chip Res. |
| R04, R05 | 4.7K | 0805 Chip Res. |
| R06 | 10k | 1210 Chip Res. |
| R07 | 120 | 1W axial resistor |
| P01, P02 | 10K | 6mm Potentiometer |
| D01-D06 | 7.5V | 50mA Zener Diode |
| VDD | 28V | DC Power Supply |
| Bias1 | 400mA | Bias for SC202 |
| Bias2 | 800mA | Bias for SM704 |

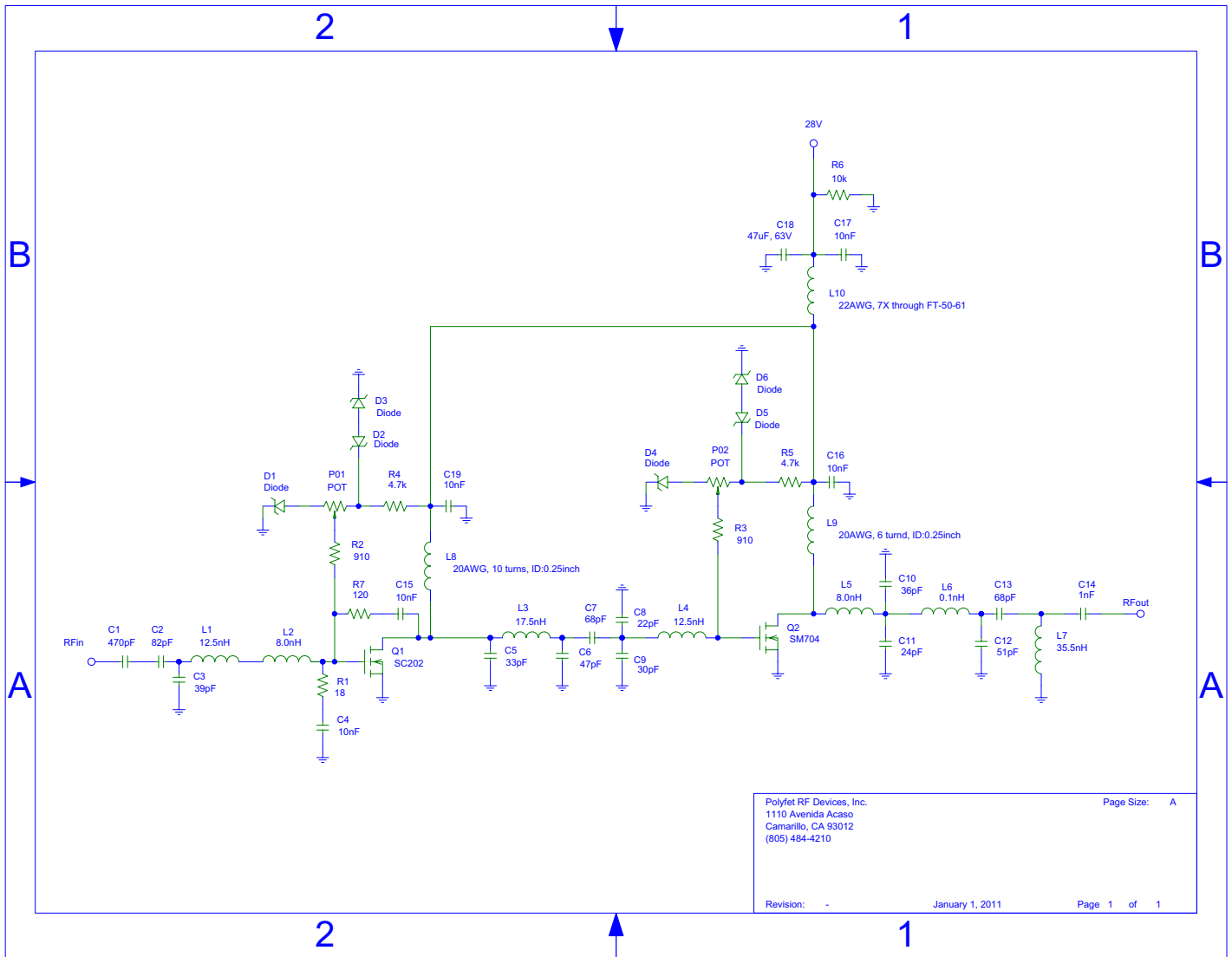
PCB Material : Double Side FR4
 Er=4.5 H=32mil T=0.7

| | | |
|---------|----------|------------|
| DRN BY: | ZHDJ JUN | 04/06/2000 |
| CHKD : | | |
| ELECT : | ED C | 01/28/2011 |
| MECH : | ED C | 01/27/2011 |
| PRDC : | | |
| QUAL : | ED C | 01/25/2011 |
| PGMS : | | |

POLYFET RF DEVICES

PCB LAYOUT
 118MHz-140MHz Amplifier

| | | | |
|-----------|---------|-------|--------------|
| SIZE | FSCM NO | TB216 | REV |
| SCALE : 1 | : | 1 | SHEET 1 OF 1 |



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