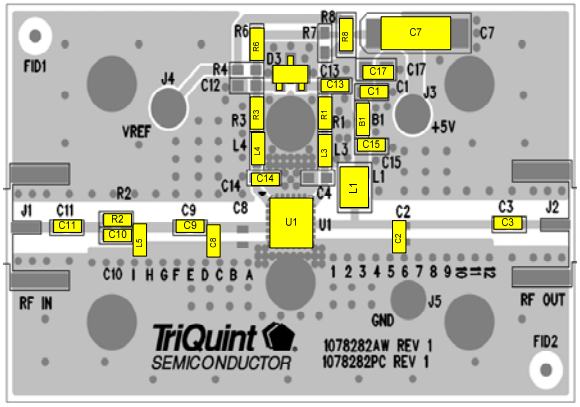
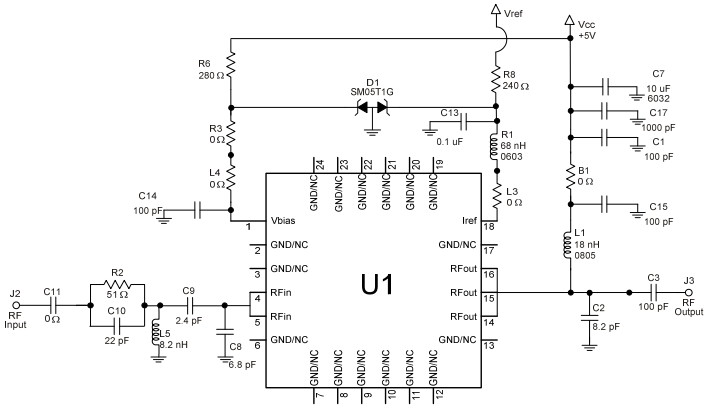
Application Circuit 920-960 MHz (TQP7M9106-PCB900)





Notes:

1. Components shown on the silkscreen but not on the schematic are not used.
2. 0 Ω resistor may be replaced with copper trace in the target application layout.
3. Iref can be used as device power down current by placing R8.
4. The recommended component values are dependent upon the frequency of operation.
5. All components are of 0603 size unless stated on the schematic.
6. R1 is critical for device linearity performance.
7. Critical component placement locations:
   - Distance between center of C8 and TQP7M9106 (U1) device package is 243 mil (11.7º at 940MHz)
   - Distance between center of L5 and TQP7M9106 (U1) device package is 452 mil (21.8º at 940MHz)
   - Distance between center of C9 and TQP7M9106 (U1) device package is 275 mil (13.3º at 940MHz)
   - Distance between center of C2 and TQP7M9106 (U1) device package is 355 mil (17.2º at 940MHz)

Bill of Material

Ref Des	Value	Description	Manuf.	Part Number
U1	n/a	2W High Linearity Amplifier	TriQuint	TQP7M9106
n/a	n/a	Printed Circuit Board	TriQuint	1078282
D1	n/a	Zener, dual, SOT-23	various	
B1, L3, L4, R3, C11	0 Ω	Resistor, Chip, 0603, 5%, 1/16W	various	
R2	51 Ω	Resistor, Chip, 0603, 5%, 1/16W	various	
R6	280 Ω	Resistor, Chip, 0603, 1%, 1/16W	various	
R8	240 Ω	Resistor, Chip, 0603, 1%, 1/16W	various	
C2	8.2 pF	Capacitor, Chip, 0603, ±0.05pF, 50 V, Accu-P	AVX	06035J8R2ABSTR
C7	10 uF	Capacitor , Tantalum, 6032, 35V, 10%	various	
C8	6.8pF	Capacitor, Chip, 0603, ±0.05pF, 50 V, Accu-P	AVX	06035J6R8ABSTR
C9	2.4 pF	Capacitor, Chip, 0603, ±0.05pF, 50 V, Accu-P	AVX	06035J2R4ABSTR
C10	22 pF	Capacitor, Chip, 0603, 5%, 50 V, NPO/COG	various	
C1, C3, C14, C15	100 pF	Capacitor, Chip, 0603, 5%, 50V, NPO/COG	various	
C13	0.1 uF	Capacitor, Chip, 0603, 50V, X5R, 10%	various	
C17	1000 pF	Capacitor, Chip, 0603, 10%, 50V, NPO/COG	various	
L1	18 nH	Inductor, 0805, 5%, Coilcraft CS Series	Coilcraft	0805CS-180XJLB
L5	8.2 nH	Inductor, 0603, 5%	Toko	LL1608-FSL8N2
R1	68 nH	Inductor, 0603, 5%	Toko	LL1608-FSL68N
R4, C12, C4, D3	n/a	Do Not Place		