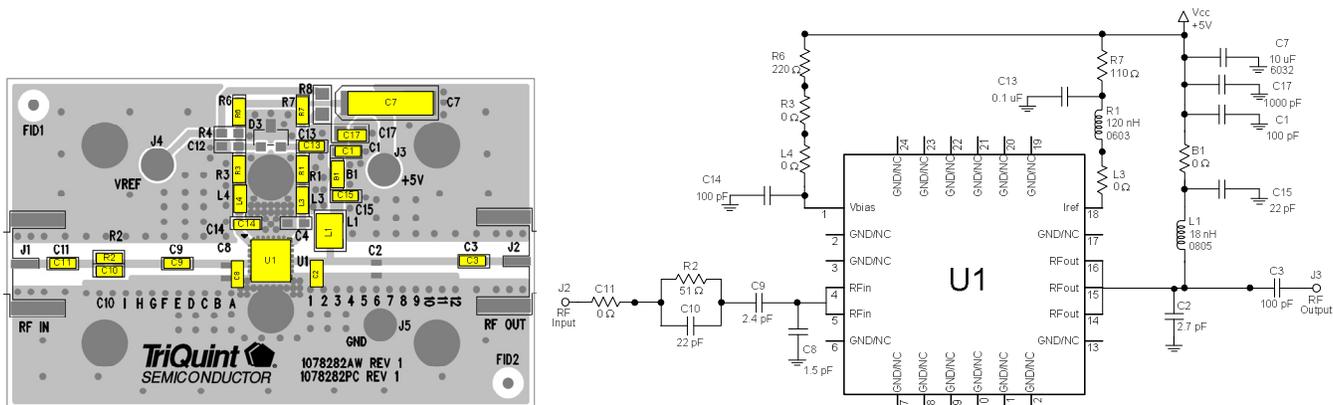


TQP7M9104

2W High Linearity Amplifier



Application Circuit 2110-2170 MHz (TQP7M9104-PCB2140)



Notes:

1. See PC Board Layout under Application Information section for more information.
2. Components shown on the silkscreen but not on the schematic are not used.
3. 0 Ω resistor may be replaced with copper trace in the target application layout.
4. Iref can be used as device power down current by placing R7 at location R8.
5. The recommended component values are dependent upon the frequency of operation.
6. All components are of 0603 size unless stated on the schematic.
7. R1 is critical for device linearity performance.
8. Critical component placement locations:
 Distance between center of C8 and TQP7M9104 (U1) device package is 50 mil.
 Distance between center of C2 and TQP7M9104 (U1) device package is 113 mil.
 Distance between center of C9 and TQP7M9104 (U1) device package is 275 mil.

Bill of Material

Ref Des	Value	Description	Manuf.	Part Number
U1	n/a	2W High Linearity Amplifier	TriQuint	TQP7M9104
n/a	n/a	Printed Circuit Board	TriQuint	1078282
C8	1.5 pF	Capacitor, Chip, 0603, ±0.05pF, 50V, Accu-P	AVX	06035J1R5ABSTR
C9	2.4 pF	Capacitor, Chip, 0603, ±0.05pF, 50V, Accu-P	AVX	06035J2R4ABSTR
C2	2.7 pF	Capacitor, Chip, 0603, ±0.05pF, 50V, Accu-P	AVX	06035J2R7ABSTR
B1, L3, L4, R3, C11	0 Ω	Resistor, Chip, 0603, 5%, 1/16W	various	
C10, C15	22 pF	Capacitor, Chip, 0603, 5%, 50V, NPO/COG	various	
C1, C14, C3	100 pF	Capacitor, Chip, 0603, 5%, 50V, NPO/COG	various	
L1	18 nH	Inductor, 1008, 5%, Ceramic	Coilcraft	1008HQ-18NXJL
C17	1000 pF	Capacitor, Chip, 0603, 10%, 50V, NPO/COG	various	
C13	0.1 uF	Capacitor, Chip, 0603, 10%, 50V, X5R	various	
C7	10 uF	Capacitor, Tantalum, 6032, 20 %, 50V	various	
R2	51 Ω	Resistor, Chip, 0603, 5%, 1/16W	various	
R6	220 Ω	Resistor, Chip, 0603, 1%, 1/16W	various	
R7	110 Ω	Resistor, Chip, 0603, 1%, 1/16W	various	
R1	120 nH	Inductor, 0603, 5%	Coilcraft	0603CS-R12XJL
R8, R4, C12, C4, D3	n/a	Do Not Place		