



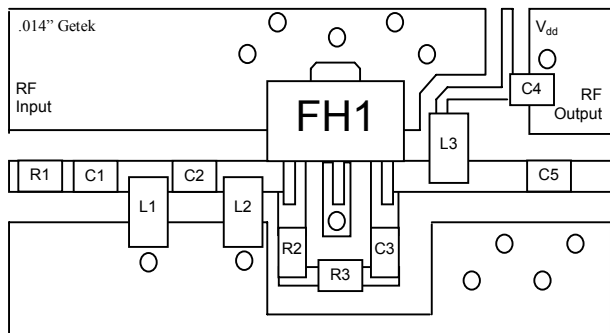
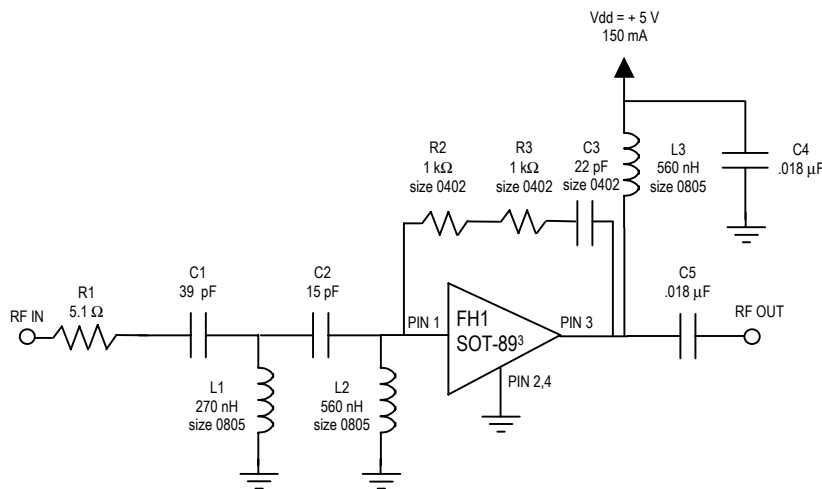
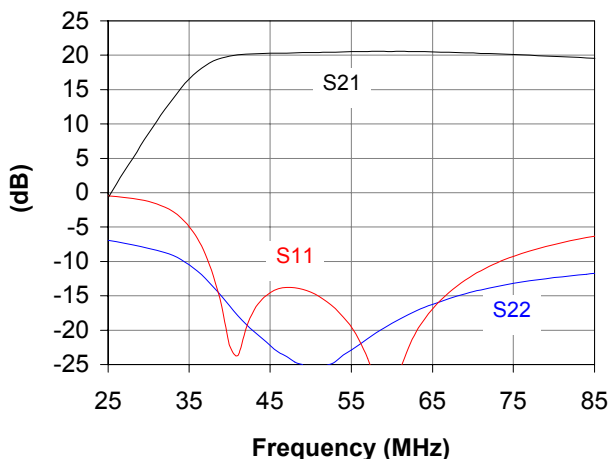
FH1 Application Circuit for 45 – 65 MHz

Summary:

This application note details the operation and schematic of an application circuit using a WJ Communications FH1 device optimized for the IF frequency band of 45 – 65 MHz. This circuit is unconditionally stable and offers a gain of 20 dB while providing excellent performance for IP3, P1dB, and noise figure. The WJ Communications low-cost FET requires only single supply that can be sourced directly from a voltage regulator.

Frequency (MHz)	45	55	65
S21 - Gain (dB)	20.3	20.5	20.5
S11 - Input R.L. (dB)	-15	-20	-17
S22 - Output R.L. (dB)	-22	-23	-17
Noise Figure (dB)	2.5	2.2	2.0
Bias	5 V at 150 mA		

S-parameters



NOTES:

- 1 All components are 0603 size unless otherwise noted. All components can be standard 5% tolerance parts.
- 2 The FET should be mounted as shown in the FH1 datasheet.
- 3 The application circuit should be biased directly into a constant voltage DC regulator. A dropping resistor is NOT required for biasing this device.
- 4 R1 is used to make the circuit unconditionally stable. It is not necessarily required for circuit operation.

Specifications and information are subject to change without notice