

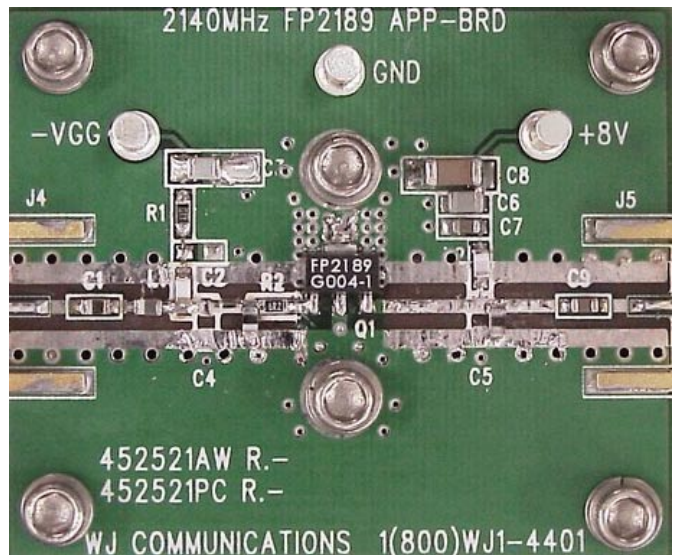
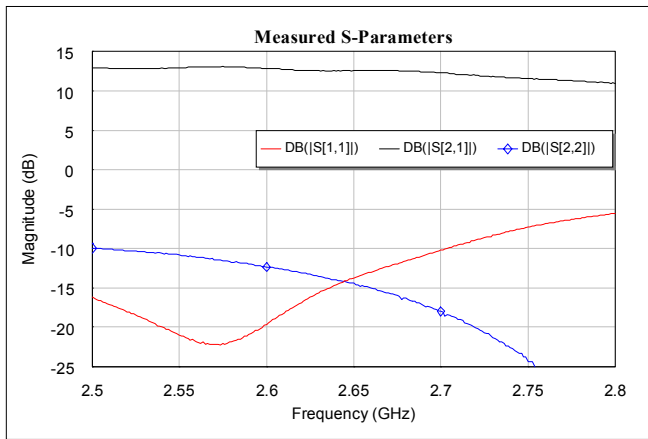


Summary

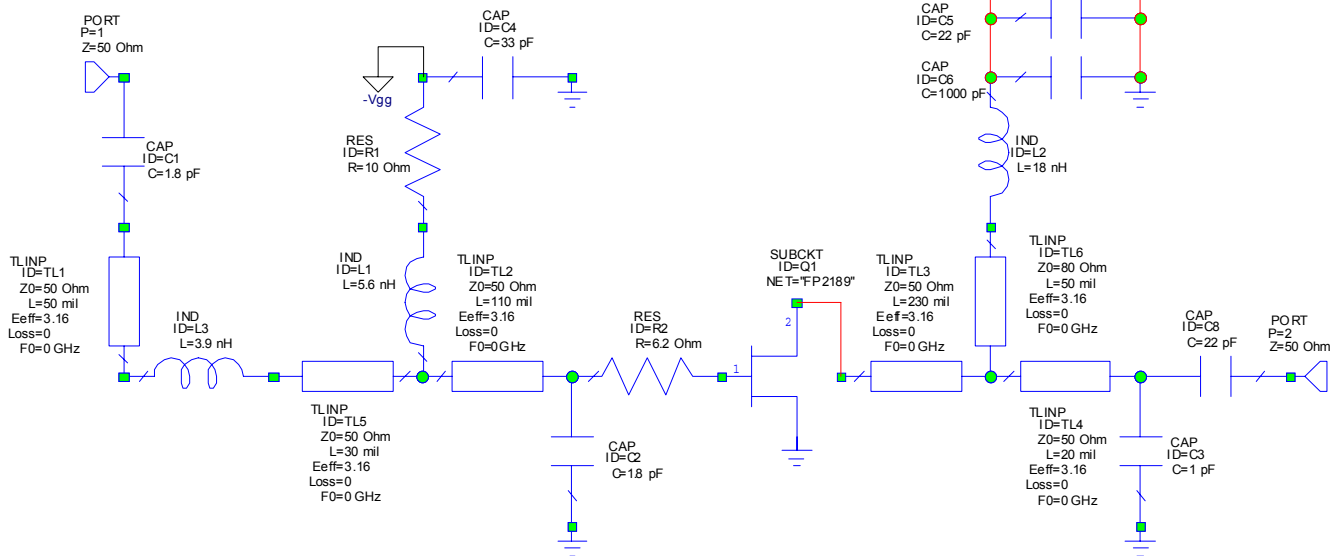
The WJ FP2189 HFET can provide good linearity while also providing 1 Watt of 1-dB compressed power. An existing FP2189-PCB2140S evaluation board can be modified for performance at 2.64 GHz. The only changes required were the positions of the input and output tuning capacitors (C2 and C3) as well as the addition of a series inductive element at the input. This application was targeted at 2.64 GHz, but it would be reasonable to use this circuit for 2.5 – 2.7 GHz MMDS applications also.

Measured RF Performance

Frequency	MHz	2620	2640	2660
S21 – Gain	dB	12.7	12.6	12.6
S11 – Input Return Loss	dB	-17	-15	-13
S22 – Output Return Loss	dB	-13	-14	-15
Output P1dB	dBm		+30	
Output IP3 (+15 dBm / tone, 1 MHz spacing)	dBm		+46.5	
Drain Voltage	V	+8		
Drain Current	mA	250		



Transmission line lengths are shown from the edge-to-edge of each component



Specifications and information are subject to change without notice