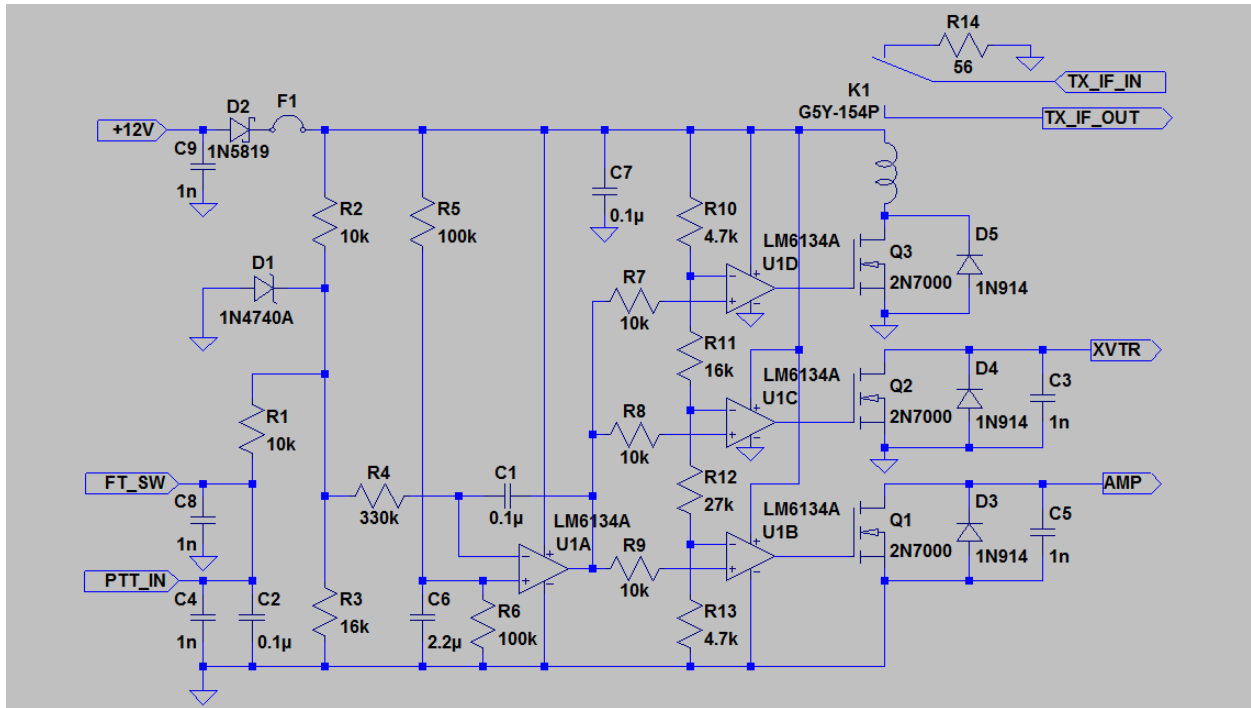


Three Output Sequencer for the K2

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Schematic:



Connections:

PTT_IN goes to K2 Key Out (ground to transmit). FT_SW goes to a footswitch. The TX IF output from the K2 (K60XV or the 10 W antenna connector through an attenuator) goes to TX_IF_IN. TX_IF_OUT goes to transverter TX IF input. XVTR is a ground-to-transmit key line for the transverter. AMP is a ground-to-transmit key line for the power amplifier.

Sequence:

When the sequencer is keyed, the amplifier is switched to transmit almost immediately, followed by the transverter and K1 closes to allow drive power to reach the transverter. Upon returning to receive, the drive is cut off first, then the transverter is unkeyed, followed by the amplifier.

Isolation Test on TX IF:

The test setup was as follows:

Starkit LSG-10A Signal generator -> 20 dB pad -> amplifier -> 3 dB pad -> sequencer -> H.B .power meter

With the signal generator set to ~ 28 MHz the sequencer was keyed to transmit and the power meter read 0.67 mW. With the sequencer returned to the receive state the power meter did not deflect on the lowest scale (100 nW full scale). I consider this to be certainly less than 1 nW leakage.

Isolation = $10 * \log_{10} (\text{Power}[\text{transmit state}]/\text{Power}[\text{receive state}])$

$$= 10 * \log_{10} (0.67 \text{ mW} / 1 \text{ nW})$$

$$= 58 \text{ dB (at least)}$$