

The proposed controlled oscillator contains a field-effect transistor with two gates, a resistor, a capacitor, a direct voltage source, and additionally, the second direct voltage source, a bipolar transistor, three additional field-effect transistors, and three additional capacitor. The first terminal of the first voltage source is connected to the gates of the first, second, and third field-effect transistors. The source of the first field-effect transistor is connected to the collector of the bipolar transistor, the first gate of the first field-effect transistor, the first terminal of the resistor, and the first output of the generator. The drain of the first field-effect transistor is connected to the source of the second field-effect transistor and the first terminal of the first capacitor. The drain of the second field-effect transistor is connected to source of the third field-effect transistor and the first terminal of the second capacitor. The drain of the third field-effect transistor is connected to the base of the bipolar transistor and the first terminal of the third capacitor. The emitter of the bipolar transistor is connected to the source of the first field-effect transistor. The second terminal of the resistor is connected to the first terminal of the fourth capacitor and the first terminal of the second voltage terminal. The second terminal of the first voltage source is connected to the second terminals of the capacitors, the drain and the second gate of the first field-effect transistor, the second terminal of the second voltage source, and the second output of the generator, forming the common point of the circuit of the generator.