

707A / RK-707A – Reflex Klystron



External cavity reflex klystron, intended for use as local oscillator in radar receivers operating around 3 GHz. The 707A was the early reflex klystron developed by Western Electric capable of operation at considerably low voltage, around 300 volts. The corresponding British oscillator, the Sutton tube, required resonator voltages in the order of 1500 volts, with considerable insulation problems in airborne equipment. Early samples delivered by the late 1941, volume production from early 1942.

This result was achieved using fine grids in the interaction gap, resulting in a shorter effective transit angle across the gap itself. The 707A was rated for 25 milliwatts minimum output power over the range from 2500 to 3700 megacycles, in a $3\frac{3}{4}$ mode. Grids became bright-yellow at full power.

6.3 V at 0.65 A heater.

RK-707A is the Raytheon distinctive code. Superseded by [707B/RK-707B](#).

The collection includes samples of 707A and 707B, some of them complete with their external cavities.