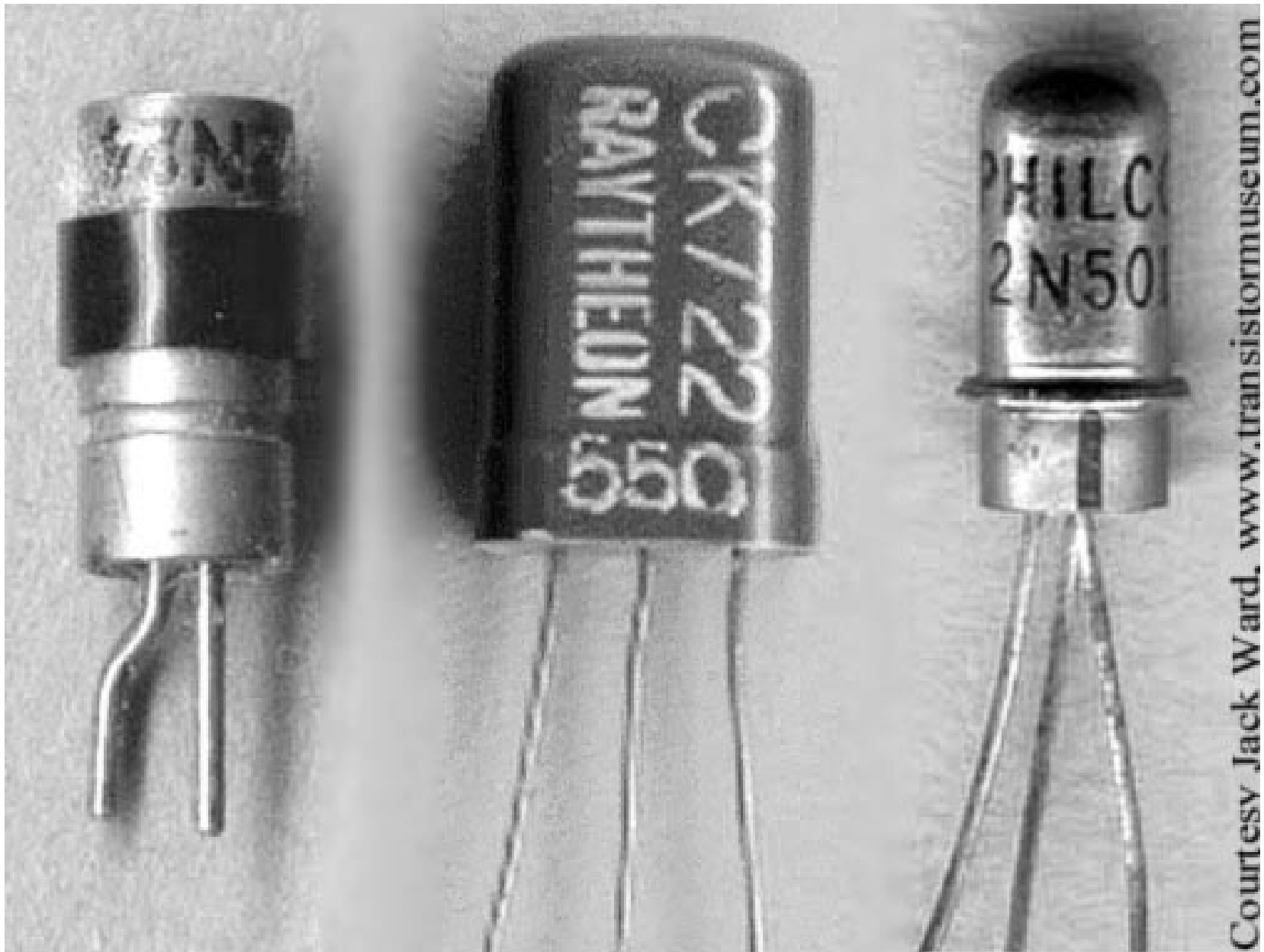


FIRST TRANSISTORIZED HF TRANSCEIVER

ISSCC 1955



A Transistor Transmitter-Receiver Unit

A PROJECT SPONSORED by the U.S. Signal Corps provided one of the first communication applications of the new transistor technology. Reported at ISSCC in 1955 (less than four months after the Regency TR-1 AM transistor radio first went on sale), this transmitter-receiver unit provided $1\mu\text{V}$ of sensitivity for 10dB of S+N/N ratio up to 24mc/s, and an output power of 100mW. Borrowing from vacuum tube circuits of the 1920s, the detector used a reflex architecture, and achieved a 60dB dynamic range. The transceiver employed a unique combination of (now obsolete) germanium point contact, surface barrier, and alloy transistors.

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