

CV209 - X-Band Strapped Magnetron



At the end of 1942 designs of Western Electric **725A** X-band strapped magnetron were made available to British industries GEC and BTH. They both started their own developments of a more efficient and stable magnetron to replace the unstrapped CV108 introduced few months before. In June 1943 BTH, with the assistance of Sayers at Birmingham, the one that had devised strapping techniques, submitted for tests first samples of its MX52. According to Callick, structure and even performances were very similar to those of 725A. It could be operated at 13 kV, 11 A input pulses, giving 45 kW in output with about 35% efficiency. In the successive evolution, internal code MX57, the body was completed with two iron polepieces to make it mechanically interchangeable with CV108. MX57 was approved as CV209.

In parallel GEC deigned its own equivalent, the [CV208](#), later then modified with single glass stem for heater connections to be interchangeable with CV209. Here is the spec sheet of [CV209](#).

No volume production reported for both CV208 and CV209, since in the meanwhile UK had decided to use the WE 725A in its sets. More than 92.000 pieces of 725A were delivered to Commonwealth during the war, under the Lend and Lease Act. CV208 and CV209 were then used mainly as spares to replace CV108 in old sets.