

CV322 / VX5001 - Reflex Klystron, X-Band



Quasi-experimental reflex klystron intended as local oscillator in the receiver of X-band radar sets. Developed by EMI as VX5001, CV322 was a functional replacement of the Western Electric [723A](#). The first 3-cm WE design, also known as the 'Pierce-Shepherd design' from the name of its developers, was soon superseded by [723A/B](#), with extended tuning range. The tuning compression mechanism was moved on the top, while the reflector was connected to the quasi-octal base. Few data can be found on the Virtual Valve Museum:

- **3.05 to 3.45 cm tuning range**
- **300 V resonator at 6 W**
- **30 to 50 mW output power**
- **110 V reflector voltage**
- **± 15 MHz electronic tuning with 15 V variation of the reflector voltage**

Presumably appeared between the second half of 1941 and the early 1942, to be used with the CV108 magnetron. The CV322 could have been proposed as low voltage substitution for the [CV87](#) after that the first prototypes of the 'Pierce-Shepherd' oscillator began to be sampled for evaluation. No serial production reported and no data available in the CV register. Curious enough, the Virtual Valve Museum shows a second sample, also marked as CV322, which actually is a 723A/B repainted and marked with the CV title.