

BX3000 / 6712 – High-Current Beam-X Counter



- Click on the image to enlarge.

The Burroughs 'Beam-X' switch family was designed to shrink the size of the previous beam switch tubes. Burroughs moved the magnetic source inside the electrode structure; 10 small magnets were mounted into the tube, one for each counting position. The Beam-X family had no pin available for zero reset feature.

Glass envelope with 26 pin base, no magnetic shield. 6712 is similar to [6710](#), with output current drive capability raised from 2.7 to 5 mA. 2 MHz counting speed.

Heater requires 6.3 volts at 150 milliamps.

In the early sixties the use of this counter was investigated in a study on a random noise generator. Probably the pseudo-random-noise was of the same kind described years later, based upon a shift-register with an exclusive-OR in the feedback. The tube was registered as JEDEC 6712 and its datasheet is currently available in the [RMA 4276](#) archive record. Unfortunately the tube appeared in the mid 1963, when comparable solid state counters were much cheaper and more reliable, and it was soon withdrawn.

[The story and the operation of the 'trochotron' beam switching tube can be found in this article.](#)