



INLINE ELECTRON GUN HAVING IMPROVED BEAM FORMING REGION

Abstract

An improved inline electron gun (10), for use in a color picture tube, includes a plurality of electrodes (16, 18, 20, 22, 24, 26) spaced from three cathodes (14) in the direction of a longitudinal axis (Z) of the gun. The electrodes form at least a beam forming region and a main focus lens in the paths of three electron beams, a center beam and two side beams. Each of the electrodes includes three inline apertures (56, 66) therein for passage of the three electron beams. The beam forming region includes the cathodes (14) and three consecutive electrodes, a G1 electrode (16), a G2 electrode (18) and a G3 electrode (20). The improvement comprises the G2 electrode having two linear projections (58) on either side of the inline apertures (56) therein. The projections parallel the inline direction of the apertures and protrude in a direction parallel to the longitudinal axis, past the apertured portion (54) of the G3 electrode in overlapping relationship therewith. On the side (52) of the G3 electrode facing the G2 electrode, the G3 electrode has two linear channels (64) therein on either side of the inline apertures (66) therein. The channels are immediately adjacent the projections on the G2 electrode and in a spaced nested relationship therewith.

FIGURE 3

