

Title (en)
Slit-scanning image converter tube.

Title (de)
Bildwandlerröhre mit Spaltenabtastung.

Title (fr)
Tube convertisseur d'image à balayage de fente.

Publication
EP 0155890 A2 19850925 (FR)

Application
EP 85400461 A 19850311

Priority
FR 8404095 A 19840316

Abstract (en)
1. Image converter tube with slit scanning for observing rapidly evolving light phenomena by scanning the image of a slit (34) on a screen (4), said slit collecting on a photodiode (2) the light supplied by a light phenomenon to be studied, and emitting an electron beam (12, 30, 58), said tube having the aforementioned photocathode (2), a closing means (90, 92), an accelerating electrode (14) and a deflection and focusing optics for the electron beam located between the accelerating electrode and the screen, said deflection and focusing optics comprising a first electronic means for producing the image of the largest dimension of the slit on the screen and a second electronic means, independent of the first, for focusing and deflecting the beam, in the plane of the screen, in a direction perpendicular to the preceding direction, wherein said second electronic means having, between the accelerating electrode (14) and the screen (4), a focusing optics followed by a deflection electrode (42), said focusing optics incorporating quadrupole lens (38) and a convergent planar lens (40), characterized in that the focusing optics also comprises a second convergent planar lens (36) upstream of the quadrupole lens (38) and in that the deflection electrode (42) is located downstream of the convergent planar lens (40), so that the focusing optics forms the image of the smallest dimension of the slit on the screen and limits the width of the beam on entering the deflection electrode (42).

Abstract (fr)
Ce tube comprend entre une photocathode (2) munie d'une fente (34) et un écran (4), un premier moyen électronique pour faire l'image de la plus grande dimension de la fente sur l'écran et un second moyen électronique indépendant du précédent pour focaliser et défléchir le faisceau, dans le plan de l'écran, dans une direction perpendiculaire à la direction précédente. Ce second moyen électronique comprend au moins une lentille plane convergente (36, 40) et une électrode de déflexion (42), chacun de ces deux moyens étant réglable indépendamment. Application à la cinématographie électronique ultrarapide.

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H01J 31/50 (2006.01)

CPC (source: EP)
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