

Title (en)
Color picture tube having shadow mask-frame assembly support means.

Title (de)
Farbbildröhre mit Schattenmaskerahmenträger.

Title (fr)
Tube d'image en couleurs muni d'un support pour l'ensemble masque d'ombre/cadre.

Publication
EP 0644571 A3 19950830 (EN)

Application
EP 94114353 A 19940913

Priority
US 12418393 A 19930921

Abstract (en)
[origin: EP0644571A2] An improved color picture tube (8) includes an evacuated glass envelope (10) having a faceplate panel (12) with a cathodoluminescent screen (22) comprising different color-emitting phosphor elements disposed thereon. The panel includes a shadow mask-frame assembly (30) mounted therein by support means (34) located at peripherally spaced positions within the panel. The shadow mask (24) includes an apertured portion (25), the apertures of which are in register with the phosphor elements of the screen. The support means at each spaced position includes a stud (44) attached to the glass envelope, a spring (46) having an aperture (60) therein for engaging the stud, and a plate (48) welded between the spring and the mask-frame assembly. The improvement comprises mechanically joining the spring and the plate by extrusions interlocking the parts together at two-spaced apart locations (50, 51) along one edge (52) of the parts, whereby the spring and the plate are in contact along at least a portion of the facing surfaces thereof. The interlocking extrusions render the spring and plate resistant to shock induced movement, thereby minimizing misregister between apertures in the mask and the phosphor elements of the screen. <IMAGE>

IPC 1-7
H01J 29/07

IPC 8 full level
H01J 29/02 (2006.01); **H01J 29/06** (2006.01); **H01J 29/07** (2006.01); **H01J 31/20** (2006.01)

CPC (source: EP KR)
H01J 29/073 (2013.01 - EP KR)

Citation (search report)
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• [DY] US 3803436 A 19740409 - MORRELL A
• [DA] EP 0446792 A2 19910918 - THOMSON CONSUMER ELECTRONICS [US]
• [A] US 4950941 A 19900821 - RAGLAND JR FRANK R [US]
• [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 218 (E - 200) 28 September 1983 (1983-09-28)

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EP 0644571 A2 19950322; EP 0644571 A3 19950830; EP 0644571 B1 19970618; CA 2132187 A1 19950322; CA 2132187 C 19991228; CN 1080449 C 20020306; CN 1104803 A 19950705; CZ 214594 A3 19950412; CZ 284014 B6 19980715; DE 69403873 D1 19970724; DE 69403873 T2 19971016; JP 3083709 B2 20000904; JP H07169407 A 19950704; KR 0150506 B1 19981001; KR 950009859 A 19950426; MY 111237 A 19990930; RU 2089006 C1 19970827; RU 94033987 A 19970527; SG 52296 A1 19980928; TW 341378 U 19980921

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EP 94114353 A 19940913; CA 2132187 A 19940915; CN 94116100 A 19940920; CZ 214594 A 19940906; DE 69403873 T 19940913; JP 22376094 A 19940919; KR 19940023356 A 19940915; MY PI19942459 A 19940916; RU 94033987 A 19940920; SG 1996002377 A 19940913; TW 86212747 U 19940416