



162162

11 MAR 2002



G00002

8

COLOR PICTURE TUBE HAVING AN IMPROVED
SHADOW MASK-TO-FRAME CONNECTION
ABSTRACT

An improved color picture tube (8) includes an evacuated glass envelope (10) having a rectangular faceplate panel (12). The panel includes a shadow mask assembly (30) mounted therein.

5 The shadow mask assembly includes a shadow mask (24) formed from a first metal having a first coefficient of thermal expansion, and a frame (32) formed from a second metal having a second coefficient of thermal expansion. The first coefficient of thermal expansion is substantially lower than the second coefficient of

10 thermal expansion. The improvement comprises the shadow mask being interconnected with the frame by a plurality of bimetallic elements (46), each of the elements having a first end (48) attached to the frame and a second end (50) attached to the mask. Each bimetallic element is formed of materials that cause a

15 bending of the element an amount related to the thermal expansion of the frame.

Figure 3