

Title (en)

HIGH EFFICIENCY PROJECTION DISPLAYS HAVING THIN FILM POLARIZING BEAM-SPLITTERS

Title (de)

HOCHEFFIZIENTE PROJEKTIONSANZEIGE MIT POLARISIERENDEM DÜNNFILM-STRAHLTEILER

Title (fr)

DISPOSITIF D'AFFICHAGE DE PROJECTION EXTREMEMENT EFFICACE POSSEDANT DES DIVISEURS DE FAISCEAU DE POLARISATION A COUCHE MINCE

Publication

EP 0855121 A1 19980729 (EN)

Application

EP 97935403 A 19970813

Priority

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Abstract (en)

[origin: CA2183188A1] A projection display system includes a thin film polarizing beam splitter/combiner has first and second light transmissive substrates in the form of prisms and a plurality of thin film layers disposed between the prisms. The thin film layers and have predetermined thicknesses and refractive indices which allow unpolarized incident light to be separated into s-polarized and p-polarized light beams. Both frustrated total internal reflection and thin film interference are simultaneously employed to allow s-polarized light to be transmitted and p-polarized light to be reflected over a wide range of wavelengths and angles of incidence. The device further includes two spatial light modulators for encoding an image to be projected. By providing a different signal to each spatial light modulator, a 3 dimensional display results.

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H04N 9/31; **G02B 27/28**

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