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Tang et al.

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(54) **OPTICAL LENS SYSTEM**

(56) **References Cited**

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Tsung Han Tsai, Taichung (TW); **Hsin Hsuan Huang**, Taichung (TW)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 163 days.

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(21) Appl. No.: **12/980,508**

Primary Examiner — William Choi

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(65) **Prior Publication Data**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**

G02B 3/02	(2006.01)
G02B 13/18	(2006.01)
G02B 9/60	(2006.01)

(52) **U.S. Cl.** **359/714; 359/764**

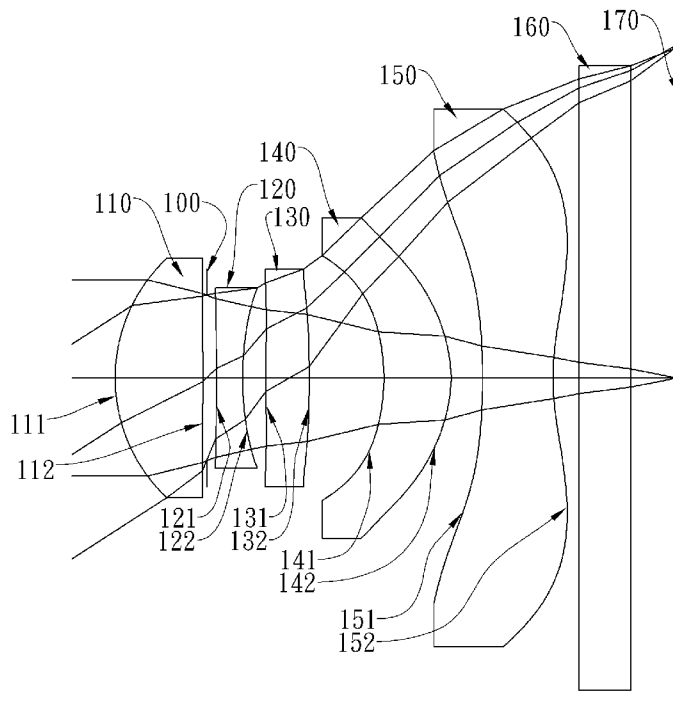
(58) **Field of Classification Search** 359/714, 359/753, 764

See application file for complete search history.

(57) **ABSTRACT**

The present invention provides an optical lens system comprising, in order from an object side to an image side: a first lens element with positive refractive power having a convex object-side surface; a second lens element with negative refractive power; a third lens element with positive refractive power having a convex object-side surface and a convex image-side surface; a fourth lens element; and a fifth lens element having a concave image-side surface, the object-side and image-side surfaces thereof being aspheric and at least one inflection point being formed on the image-side surface. Such arrangement of optical elements can effectively minimize the size of the optical lens system, lower the sensitivity of the optical system, and obtain higher image resolution.

18 Claims, 29 Drawing Sheets



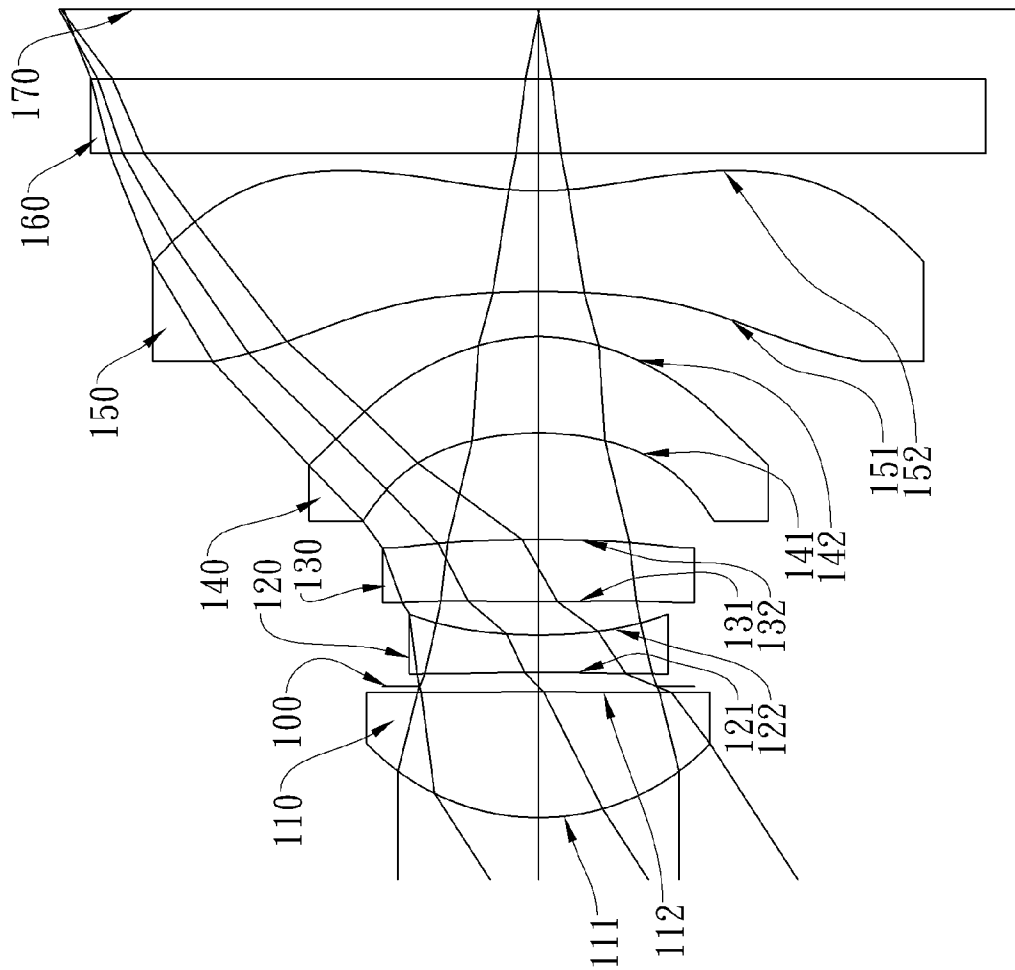


Fig. 1A

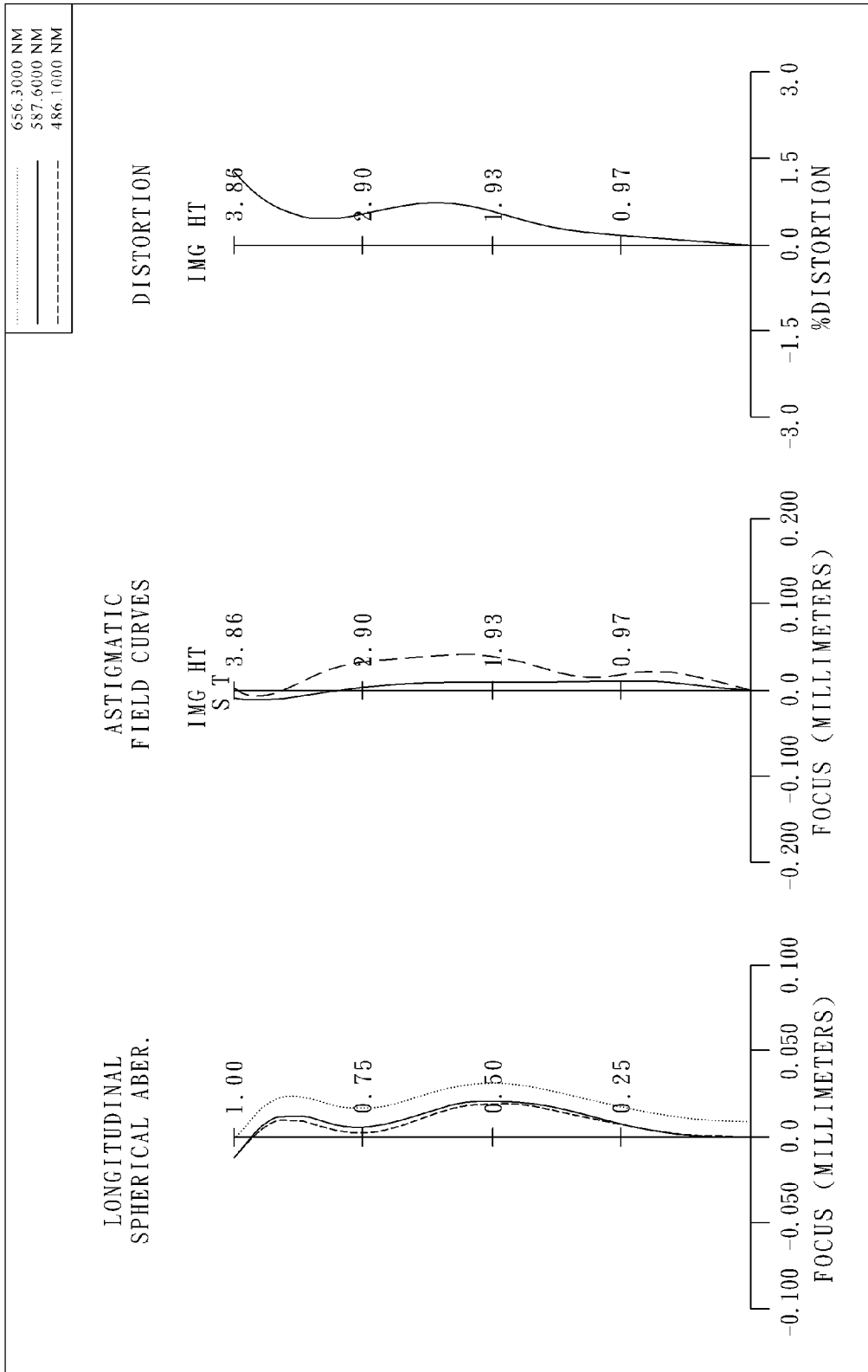


Fig. 1B

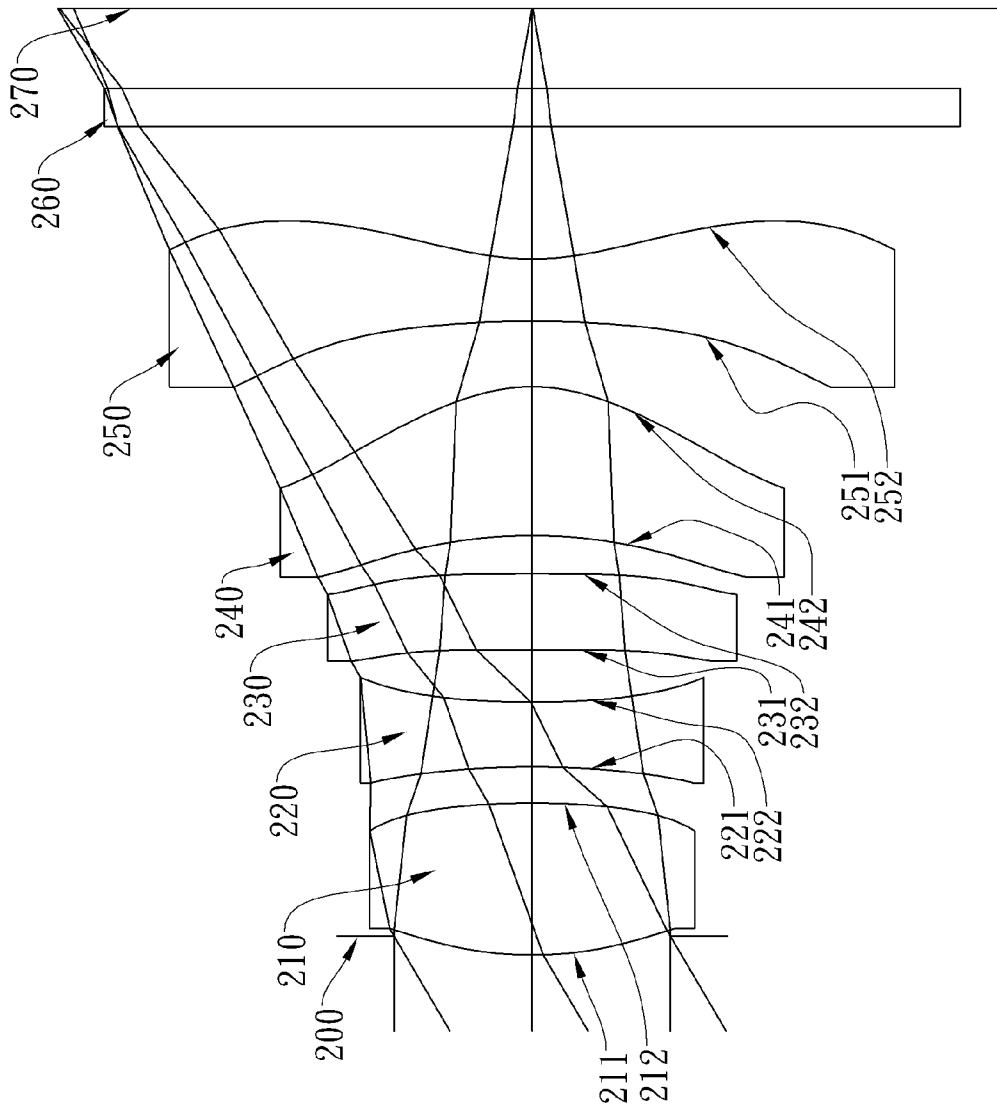


Fig. 2A

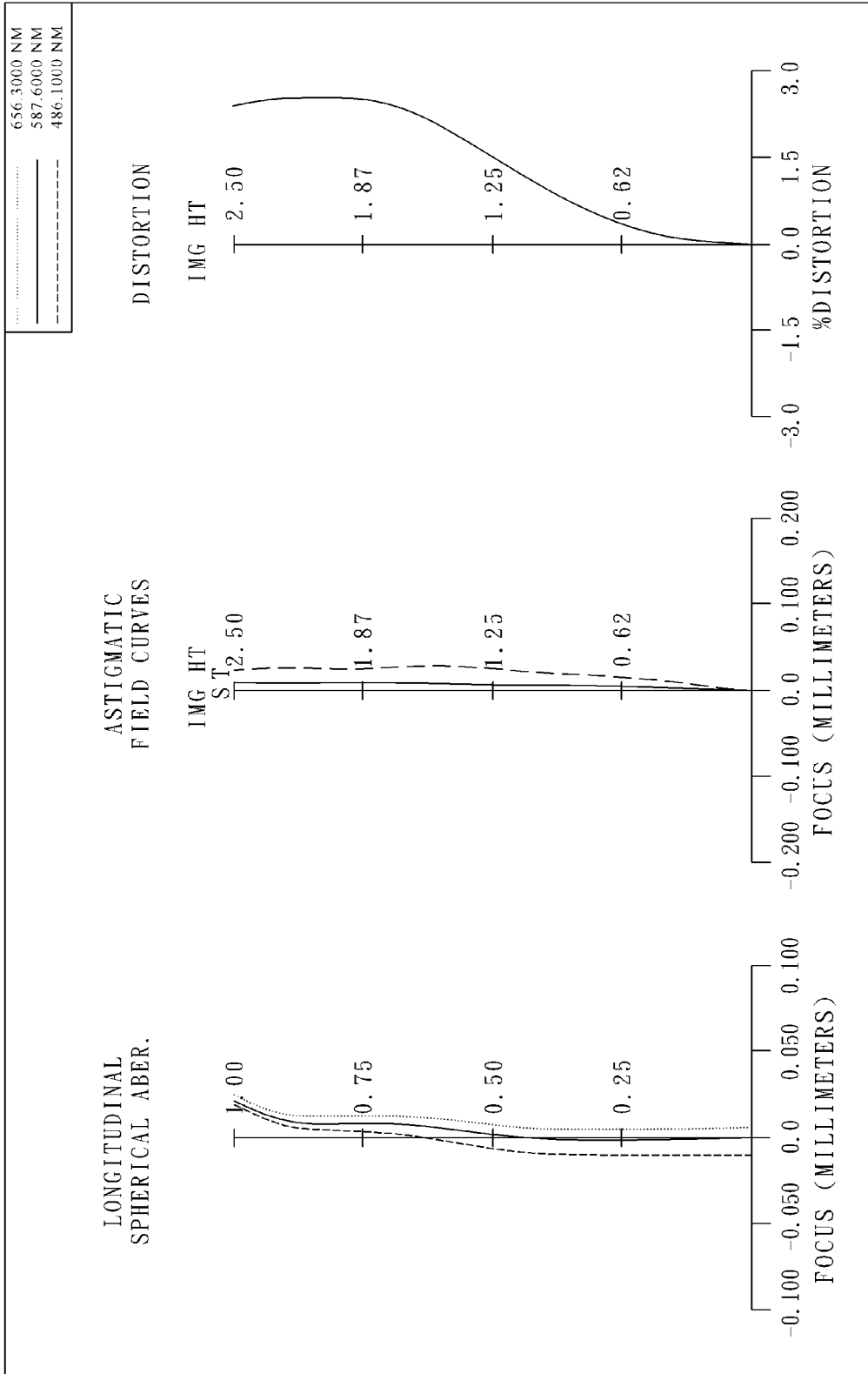


Fig. 2B

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