

## 高精度分划板自动对焦评价函数研究

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摘要:

本文提出了一种基于离散余弦变换系数的自动对焦评价方法, 用来准确、快速地反映分划板对焦过程。该方法对分划板图像进行离散余弦变换, 通过组合有效的离散余弦变换系数来提供对焦评价。进行了十字刻线和十字瞄准线两种不同分划板的对焦实验, 结果表明, 当对焦目标为分划板图像时, 本文方法提供的对焦评价, 具有更好的单峰性、更高的灵敏度和更快的运算速度, 拥有比空域评价法更优异的性能。

关键词: 自动对焦; 对焦评价函数; 离散余弦变换; 分划板

## Research on High Precision Evaluation function for Auto-focus of Reticule

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**Abstract:**

An auto-focus evaluation method based on discrete cosine transform is proposed to reflect the focusing process of reticule accurately. This method gets the focus evaluation value by processing image of reticule using DCT and combining the effective coefficient of DCT. The experiment is carried out to focus cross reticule and cross aimed lines. Experimental results show that, compared with evaluation methods of spatial domain, the evaluation value proposed performs better when the focusing target is reticule, especially in narrower peak, higher sensitivity and faster operation speed.

**Keywords:** Auto-focus; Focusing evaluation function; DCT; Reticule

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