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Resolution of photographic and movie cameras 3

***Abstract***

***The article contains a technique of calculation of the photographic and movie cameras’ matrices resolution. The aperture of the image sensor matrix is taken into consideration. The Fourier transform of this aperture allows to calculate the modulation transfer function of the matrix. The resolution of the matrix is determined as a spatial frequency which results in equality of the contrast transmission factor to the threshold value. It is shown that there are multiple frequencies of a matrix. That may effect to ambiguity of the resolution value and moire emersion in case of insufficient optical filtering of the image signal before its sampling.***

***Keywords: digital photo camera, digital movie camera, resolution, limiting resolution or the resolving power, modulation transfer function, image sensor, sampling, aliasing, moire.***

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