

ISO 15529:2007-09 (E)

Optics and photonics - Optical transfer function - Principles of measurement of modulation transfer function (MTF) of sampled imaging systems

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions and symbols	1
3.1	Terms and definitions	1
3.2	Symbols	4
4	Theoretical relationships	4
4.1	Fourier transform of the image of a (static) slit object	4
4.2	Fourier transform of the output from a single sampling aperture for a slit object scanned across the aperture	6
4.3	Fourier transform of the average LSF for different positions of the object slit	7
5	Methods of measuring the MTFs associated with sampled imaging systems	8
5.1	General	8
5.2	Test azimuth	8
5.3	Measurement of T_{sys} of a sampled imaging device or complete system	9
5.4	Measurement of the MTF of the sampling aperture (Tap)	15
6	Method of measuring the aliasing function, the aliasing ratio and the aliasing potential ...	15
Annex A (informative) Background theory		17
Annex B (informative) Aliasing in sampled imaging systems		20
Bibliography		25