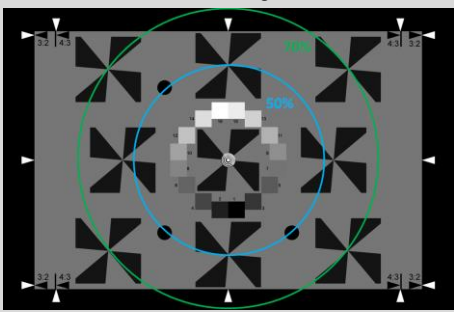# TE296 data sheet

Overview

Product name	TE296 A
Principle	A test chart to determine the resolution of a digital camera based on SFR edge measurement. The chart includes gray patches to perform a linearization and complies with ISO 12233.

Features

Slanted edges

Type/s of pattern	Nine sub-charts of low contrast slanted edges • Each sub-chart has two vertical, two horizontal, and four diagonal edges • 16-step grayscale for linearization and circularly arranged. For gradation, refer to the acceptance protocol • Focusing aid in the center of each sub-chart • Edges tilted by 5 degrees • Sub-charts arranged at 50% and 70% image height (for a 4:3 aspect ratio)
Modulation	0.60 ± 0.05 (edge to background), ratio 4:1 0.70 ± 0.05 (edge to edge), ratio 6:1
Background reflectance	0.20 ± 0.02 The A1066 chart is made up of three parts. The backgrounds of these parts can differ from each other within tolerance.

Sample rate* [MP]		minimum	maximum	
	A1066 H	---**	170	(> 8K)***
	A460 H	---**	30	(HDTV - 8K)***

General description hardware

Type	Reflective
Aspect ratio	Combines 3:2 and 4:3 (by using framing marks)

Chart size		W [mm]	H [mm]	D [mm]	Weight [g]
	A1066	1245	835	3.2	≈ 4500
	A460	600	500	3.2	≈ 3000
	other				

Picture size		3:2		4:3	
		W [mm]	H [mm]	W [mm]	H [mm]
	A1066	1066	711	948	711
	A460	460	306	408	306
	other				

Material	Photographic film, matt finishing A1066 is made from three parts, which can differ in gray value with a tolerance of ± 0.03 OD.
Mounting	3mm aluminum composite panel (aluminum Dibond, A1066) 3mm aluminum (A460)
Edge protection	None
Service life	3 years
Storage	Dark, dry, and free from harmful gas (e.g., formaldehyde or ozone). 20 °C and 25 °C with a humidity of 60% – 65% and no direct sunlight at any time.
Scope of delivery	Test chart, acceptance protocol

Miscellaneous

Evaluation / Assessment	RAW recommended, supported by iQ-Analyzer-X since V1.9
Standards	ISO 12233

* If the chart fills the image height, the chart can be used with a camera of minimum/maximum sampling rate, stated in megapixels (MP)

** No lower limit for Slanted Edges; small ROI increases variance, min. 100-pixel ROI required

*** HDTV ~ 2.1 MP, 4K ~ 8.3 MP, 8K ~ 33 MP