



Overview

Product name	TE270X V2
Principle	Transparent gray scale test chart with variable center density to determine the OECF, noise, SNR and dynamic range of cameras that only offer auto-exposure and auto-focus functions (e. g. mobile devices)

Features

OECF

Type/s of pattern	gray scale, circular arranged (most optical systems are rotationally symmetric so all patches will be affected in the same way by shading)
Contrast	10,000:1 (80 dB, 13 f-stops) <input type="checkbox"/> other: _____
Quality	X-version*
Number of steps	20
Arrangement of steps	according to ISO 14524
Values that can be gathered from analysis	<ul style="list-style-type: none"> • OECF / gamma curve • dynamic range • noise • temporal noise • visual noise • SNR • ISO speed of the camera



General description hardware

Type	transmissive				
Aspect ratio	16:9 (can be used for other aspect ratios without restrictions)				
Chart size [W x H x D]		W [mm]	H [mm]	D [mm]	
	<input type="checkbox"/> D280	360	280	4.6	
	<input type="checkbox"/> other				
Picture size		4:3		16:9	
		W [mm]	H [mm]	W [mm]	H [mm]
	<input type="checkbox"/> D280	280	210	280	157.5
	<input type="checkbox"/> other				
Material	photographic film (gray patches and background), polarizing filter (center with variable density)				
Mounting	black anodized aluminum metal frames				
Edge protection	fabric tape				
Service life	3 years				
Scope of delivery	test chart, stable cardboard envelope to store the chart, air blower, acceptance protocol				

Miscellaneous

Evaluation / Assessment	supported by iQ-Analyzer
Standards	ISO 14524:2009 Methods for measuring opto-electronic conversion functions (OECFs) (TE269A V2 only) ISO 15739:2013 Noise measurements ISO 12232:2006 Determination of exposure index, ISO speed ratings, standard output sensitivity, and recommended exposure index
Accessories	PCR Krochmann Radiolux 111: luminance meter (tele-luminance meters can only be used in combination with a mask that covers the whole chart except the measured patch).

* gray patches are made from continuous tones/material without any raster



Acceptance protocol

Serial number: _____
 Contrast 10.000 : 1
 Date: _____
 Operator: _____

Optical density (OD) values gray patches*

Patch	Reference OD	Measured OD	Deviation
1 (white)	0,11	0,11	0,00
2	0,18	0,18	0,00
3	0,25	0,25	0,00
4	0,32	0,32	0,00
5	0,40	0,40	0,00
6	0,49	0,49	0,00
7	0,58	0,58	0,00
8	0,67	0,67	0,00
9	0,78	0,78	0,00
10	0,89	0,89	0,00
11	1,02	1,02	0,00
12	1,16	1,16	0,00
13	1,31	1,31	0,00
14	1,49	1,49	0,00
15	1,69	1,69	0,00
16	1,93	1,93	0,00
17	2,23	2,23	0,00
18	2,61	2,61	0,00
19	3,16	3,16	0,00
20 (black)	4,11	4,11	0,00
BG	1,46	1,46	0,00



* values gathered with diffuse illumination

 Signature