



Overview

Product name	TE256 A / TE256 K
Principle	Test chart align HD broadcast cameras related to gamma, color and geometric purposes

Features

Color patches

Type/s of pattern	<p>12 color patches and 64 skin tones</p> <p>(Since it is impossible to depict the 100 % saturated colors on a reflective chart the saturation is reduced to the maximum color space of the printer.)</p> <p>Approximate color regions:</p>
Color values	See last page



Resolution wedges / circles

Type/s of pattern	Horizontal and vertical resolution wedges and circles in each of the four corners for a resolution assessment and checking cross-color interferences and effects of notch and comb filters.
Resolution	400, 600, 1200 lines

Gray scale

Type/s of pattern	2 gray scales arranged on a gray background (OD \approx 0.62, remission \approx 24 %)
Contrast	63:1
Number of steps	11
Arrangement of steps	<p>corresponding to ITU-R BT.709 (between 0 and 1.8 % the gamma function shows a linear progression, for values $>$ 1.8 % the gamma factor is 0.45); the output of an optimally gamma-corrected camera yields two 11-graduated counter current linear step signals</p>
Gray values	See last page

General description hardware

Type	reflective				
Aspect ratio	16:9				
Chart size [W x H x D]		W [mm]	H [mm]	D [mm]	Weight [g]
	<input type="checkbox"/> A460	600	500	3.2	
	<input type="checkbox"/> A444	600	500	3.2	
	<input type="checkbox"/> A360	500	400	3.2	
	<input type="checkbox"/> A280	365	305	3.2	
	<input type="checkbox"/> K360*	390	271	2.1	
	<input type="checkbox"/> other				
Picture size		W [mm]	H [mm]		
	<input type="checkbox"/> A460	460	303.75		
	<input type="checkbox"/> A444	444.4	250		
	<input type="checkbox"/> A360	360	202.5		
	<input type="checkbox"/> A280	280	157.5		
	<input type="checkbox"/> K360*	360	202.5		
	<input type="checkbox"/> other				



Material	specific semi-glossy paper, mounted on a stable and even plate
Mounting	aluminum (A460, A444, A360, A280) polystyrene (K360)
Edge protection	fabric tape (except K360)
Service life	1 year
Scope of delivery	test chart, case for storing the chart safety (except K360)

Miscellaneous

Evaluation / Assessment	Visual appraisal with vectorscope and waveform monitor
Standards	ITU-R BT.709
Terms & Conditions	image-engineering.de/terms-and-conditions

* only available in combination with a folder



Reference values

Date: Jul 14, 2016

Reference values color patches*

Patch	L	a	b	X	Y	Z	R'709	B'709	C'709	Y'709	Cr'709	Cb'709
Y	86,60	-10,27	46,66	62,18	69,20	22,80	0,91	0,84	0,34	0,82	-0,26	0,06
C	72,96	-34,28	-3,92	32,84	45,11	40,15	0,39	0,73	0,58	0,65	-0,04	-0,16
G	67,55	-48,02	41,88	23,45	37,37	11,01	0,34	0,69	0,24	0,58	-0,18	-0,15
M	33,70	56,45	-52,19	15,30	7,87	27,05	0,48	0,05	0,52	0,17	0,19	0,19
R	29,54	50,80	17,13	11,64	6,05	2,39	0,51	0,01	0,09	0,12	-0,02	0,25
B	25,17	33,71	-55,18	7,27	4,47	20,72	0,29	0,10	0,45	0,16	0,15	0,08
Skin 1	55,34	28,95	32,48	29,38	23,26	7,65	0,74	0,37	0,22	0,44	-0,12	0,19
Skin 2	56,80	23,53	21,76	29,61	24,72	11,52	0,72	0,41	0,26	0,46	-0,11	0,16
Skin 3	56,24	18,87	14,97	27,78	24,15	13,57	0,67	0,42	0,30	0,46	-0,09	0,13
Skin 4	22,77	19,60	25,23	5,02	3,73	0,74	0,29	0,10	0,01	0,13	-0,06	0,10
light green	69,51	-37,10	60,49	28,09	40,06	6,78	0,50	0,69	0,03	0,60	-0,31	-0,07
light blue	61,12	-11,60	-27,14	25,48	29,39	42,34	0,38	0,56	0,63	0,53	0,05	-0,09
dark green	43,64	-51,18	21,03	6,73	13,59	5,65	-0,09	0,42	0,16	0,29	-0,07	-0,24
rose	59,04	38,97	-20,09	36,73	27,08	34,46	0,77	0,39	0,56	0,48	0,04	0,19
brown	33,90	43,48	32,35	13,33	7,96	1,60	0,54	0,09	0,04	0,18	-0,08	0,23
purple	27,12	47,54	-57,17	9,81	5,14	23,47	0,32	0,05	0,48	0,14	0,18	0,12

Reference values gray scale*

Patch OD

1 (white)	0,05
2	0,14
3	0,23
4	0,33
5	0,45
6	0,58
7	0,73
8	0,91
9	1,14
10	1,43
11	1,85
BG	0,62

* batch measured values