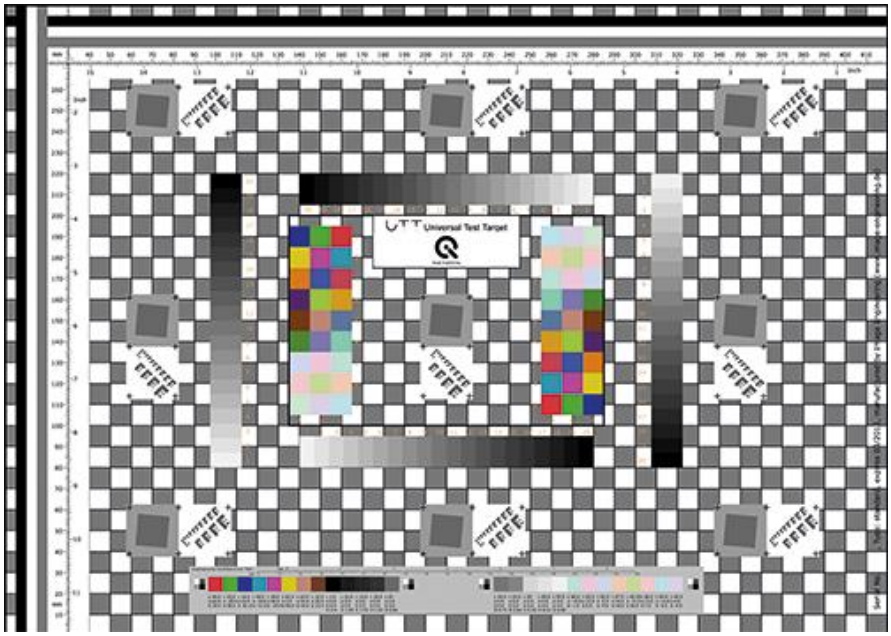
TE262 A data sheet



Overview

Product name	TE262 A
Principle	Multipurpose test chart designed to evaluate the image quality of scanners and other digital input devices for the archiving industry used to create digital images of documents, photos and other reflective media. It is available in various sizes ranging from A4 to A0.

Features

GRAY SCALE

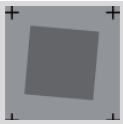
Type/s of pattern	Grayscales A4: 2 A3/A2/A1/A0: 4/8/16/32
Patch size [mm]	15 x 7
Contrast	200:1 (46 dB, 7.64 f-stops)
Number of steps	20
Arrangement of steps	Starting at L* of 3 for patch 20, followed by patch 19 with L* of 5 with 5 L* value increments (L*3, L* 5 – L* 95)
Color Values	Production tolerance is ± 3 ΔE and ΔL*

Color patches

Type/s of pattern	27 patches for A4 and A3 (2 blocks, arrangement upside down), multiple for A2, A1, A0 • 18 colors similar to the ColorChecker Classic • 9 colors similar to pastel patches of columns D and K to the ColorChecker SG A4: 1 block A3/A2/A1/A0: 2/4/8/16 blocks
Patch size [mm]	10 x 10

Color values	Patch	L*	a*	b*	Patch	L*	a*	b*	Patch	L*	a*	b*
	A1/F9	18	24	-61	B1/E9	53	-45	38	C1/D9	46	64	34
	A2/F8	82	3	90	B2/E8	49	56	-14	C2/D8	48	-34	-31
	A3/F7	61	38	74	B3/E7	35	12	-53	C3/D7	48	54	21
	A4/F6	21	35	-32	B4/E6	72	-25	65	C4/D6	71	19	80
	A5/F5	32	24	32	B5/E5	64	20	19	C5D5	47	-5	-25
	A6/F4	45	-32	38	B6/E4	53	8	-27	C6/D4	69	-35	-1
	A7/F3	85	-2	-9	B7/E3	85	13	0	C7/D3	86	-19	-1
	A8/F2	86	13	7	B8/E2	85	-11	26	C8/D2	87	10	18
	A9/F1	90	-17	6	B9/E1	85	4	-6	C9/D1	85	-14	-9
Color values	Production tolerance is ± 7 ΔE for A1-A4, B1-B4, C1-C4, D6-D9, E6-E9, F6-F9 / MEAN ± 5 ΔE ± 5 ΔE for A5-A6, B5-B6, C5-C6, D4-D5, E4-E5, F4-F5 / MEAN ± 5 ΔE ± 4 ΔE for A7-A9, B7-B9, C7-C9, D1-D3, E1-E3, F1-F3 / MEAN ± 2 ΔE										

Slanted edges

Type/s of pattern	Slanted edge patches (4 edges each patch) A4 9 A3/A2/A1/A0 9 / 18 / 36 / 72	
Resolution	20 LP/mm	
Modulation	L* 38 / OD 1.00 (Edge) L* 63 / OD 0.50 (Background)	
Size of sub-chart [mm]	25 x 25	
Patch size tolerance	Up to +/- 1.0 mm as they are hand-cut	
Density / Reflection values	Production tolerance is ± 0.03 OD	

Resolution pattern

Type/s of pattern	Line pattern A4 9 A3/A2/A1/A0 9/18/36/72	
Resolution	2.8 – 18 LP/mm in 17 groups (material resolution 20 LP/mm)	
Size of sub-chart [mm]	25 x 25	
Patch size tolerance	Up to +/- 1.0 mm as they are hand-cut	

TE263 (implemented)

Type/s of pattern	Scan reference chart implemented in the design of the UTT. For specs visit the original data sheet. A4 0 A3/A2/A1/A0 1/2/4/8 image-engineering.de/products/charts/all/580-te263	

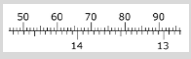
Background checker board

Type/s of pattern	Checker board can be used for uniformity analysis, white balance checking, and distortion and deviation analysis.
Modulation	L* 96 / OD 0.05 (white patch) L* 50 / OD 0.75 (grey patch)
Patch size [mm]	10 x 10

Grey bars

Type/s of pattern	3 horizontal, 3 vertical grey bars located at the top and left of the target 5mm from the border crossing
Modulation	L* 3 / OD 2.36 (black bar) L* 96 / OD 0.05 (white bar) L* 50 / OD 0.75 (grey bar)
Density / Reflection values	Production tolerance is ± 0.03 OD

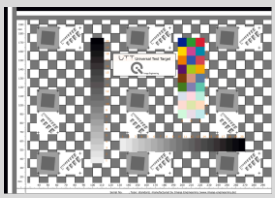
Scales

Type/s of pattern	Horizontal and vertical with a millimeter and inch scale on white background, crossing at 0/30mm 

Surrounding black line

Type/s of pattern	Line surrounding the target needed to combine single targets into larger arrangements of A2 to A0 and to allow cutting.
Thickness [mm]	1
Size of sub-chart [mm]	420 x 300

General description hardware

Type	Reflective (A) Mounted or unmounted
Chart arrangement A4	
Chart arrangement A3 – A0	

		mounted			unmounted		
Chart/Picture size [W x H x D] [mm]		W	H	D	W	H	D
	A4*	302	211	3.2	302	211	0.260
	A3*	423	302	3.2	423	302	0.260
	A2*	604	423	3.2	601	421	0.260
	A1*	844	604	3.2	841	601	0.260
	A0*	1202	842	3.2	1201	841	0.260
Chart size tolerances	Mounted: Up to +/- 0.5 mm Unmounted: Up to +/- 1.0 mm as they are hand cut						
Material	Print: Specific glossy paper, resolution 3-4 LP/mm Slanted Edges and resolution pattern: Contact copy from chrome mask						
Mounting	Mounted: Aluminum composite panel Unmounted: None						
Edge protection	No						
Service life	Color print 2 years Please check annually if a new reference measurement is necessary for color targets. We also recommend and offer a recalibration of the chart after 3 years of regular use.						
Storage	Dark, dry, and free from harmful gas (e.g., formaldehyde or ozone). 20 °C and 25 °C with a humidity of 35% – 65% and no direct sunlight at any time.						
Scope of delivery	Test chart						

Miscellaneous

Evaluation / Assessment	Supported by iQ-Analyzer-X Visual appraisal
Reference data iQ-Analyzer-X	Individual reference file provided, if ordered measured Default reference file integrated in the iQ-Analyzer if ordered unmeasured
Measurement device	X-Rite eXact (reflective charts) https://www.image-engineering.de/content/products/charts/IE_reference_data_accuracy.pdf
Standards	ISO 19264-1, Metamorfoze Guideline
Related Products	TE263 Scan reference chart
Terms & Conditions	image-engineering.de/terms-and-conditions

* The dimensions deviate slightly from the DIN standard values and are not fully compliant