

## Annex F: Form F for the frame area

This form may be freely copied

For this test the output (reproduction, display) and the ISO/IEC-test chart 2 or 4 (original, reference) is necessary

Please fill out or mark by ( **x** ):

### Test of chromatic test chart 2 ( ) or test chart 4 ( ):

ISO-test chart: e. g. Test chart 4 for colour devices ISO/IEC(write text from the frame area of ISO/IEC-test chart)

ISO/IEC-BAM-identification: e. g. 20031201-DE96/10L/ (write code from top right side) .....

ISO/IEC-reference material: e. g. r(h/c)a4(r/t)(a/d) (write code from bottom right side) .....

File-name: e. g. L96E00NP.PDF (write code from top side) .....

### Reproduction technique for „halftone (h)“ ( ) or „continuous tone (c)“ ( )

NOT: The usual output technique for printer and copier is (h). For photo, film, monitor and scanner it is (c).

### Test of reproduced lines according to lines defining rectangles in the frame region:

NOTE: An ISO/IEC-reference test chart is in accordance with the methods of this Technical Report if there are at least some complete lines for the *inner (thicker line)* rectangle. For this purpose there are between 4 and 20 lines on an ISO/IEC-test chart.

How many lines are on the ISO/IEC-test chart?	of max. 20 lines:	.... lines are given
How many lines of the ISO/IEC-test chart are reproduced?	of given .... lines:	.... lines
Are the four ( <i>inner thicker</i> ) lines of the inner rectangle fully reproduced?		Yes/No
If No: How many <i>inner</i> lines are fully reproduced?	of given 4 lines:	.... lines

### Test of agreement of the four 5-step grey scales according to the grey scales in the frame region:

Are there clearly seen differences between the four 5-step grey scales near the four corners? Yes/No  
If Yes: Indicate by ( **x** ) – only one ( **x** ) – which grey scale deviates most from the average of the four grey scales and mark if this is darker or lighter.

top left ( )	if ( <b>x</b> ): Is this darker ( ) or lighter ( )?
top right ( )	if ( <b>x</b> ): Is this darker ( ) or lighter ( )?
bottom left ( )	if ( <b>x</b> ): Is this darker ( ) or lighter ( )?
bottom right ( )	if ( <b>x</b> ): Is this darker ( ) or lighter ( )?

### Test of the scaling factors using width and height of the inner rectangle in the frame region:

The width and height of the inner rectangle in x- and y-direction in mm of the reference test chart ( $\Delta x_r$  and  $\Delta y_r$ ; r = reference) and the reproduction ( $\Delta x_o$  and  $\Delta y_o$ ; o = output) must be measured. The scaling factors ( $s_x$  and  $s_y$ ) in x- and y-direction must be calculated. For this 3 digits in mm and with rounding like the example are used (e. g.  $s_x = 1,01$  and  $s_y = 0,98$ ).

$$s_x = \Delta x_o / \Delta x_r = \dots \text{ mm} / \dots \text{ mm} = \dots \quad s_y = \Delta y_o / \Delta y_r = \dots \text{ mm} / \dots \text{ mm} = \dots$$

NOTE The width  $\Delta x_r$  and height  $\Delta y_r$  of the inner rectangle is defined in PS-file (or equivalent) as 282 mm in x-direction and 194 mm in y-direction. To get high accuracy of the two scaling factors both the original and the reproduction should be measured with the same ruler (do not use values given for the original).

### Test of the shift of the colour lines compared to black according to the lines of inner rectangle of the frame:

Are there colour lines **C**, **M**, **Y**, **O**, **L** and **V** on the test chart belonging to the inner rectangles? Yes/No  
If Yes, answer the following questions:

NOTE The lines of the inner rectangle have a linewidth of 0,3 mm. If a shift of more than half of this linewidth ( $\geq 0,2$  mm) is present, it can be easily seen.

Choose one of the two *horizontal* lines and mark bottom or top line by ( **x** ):

bottom horizontal line chosen ( )                      top horizontal line chosen ( )

Is there a clearly seen ( $\geq 0,2$  mm) shift of a colour line **C**, **M**, **Y**, **O**, **L** and **V** compared to the black line **N**?

<b>C</b> Yes/No	<b>M</b> Yes/No	<b>Y</b> Yes/No	<b>O</b> Yes/No	<b>L</b> Yes/No	<b>V</b> Yes/No
If Yes: 0, . mm	0, . mm	0, . mm	0, . mm	0, . mm	0, . mm

Choose one of the two *vertical* lines and mark left or right line by ( **x** ):

left vertical line chosen ( )                      right vertical line chosen ( )

Is there a clearly seen ( $\geq 0,2$  mm) shift of a colour line **C**, **M**, **Y**, **O**, **L** and **V** compared to the black line **N**?

<b>C</b> Yes/No	<b>M</b> Yes/No	<b>Y</b> Yes/No	<b>O</b> Yes/No	<b>L</b> Yes/No	<b>V</b> Yes/No
If Yes: 0, . mm	0, . mm	0, . mm	0, . mm	0, . mm	0, . mm