INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**IEC 62908-12-10**
**Edition 1.0   2017-06**

**TOUCH AND INTERACTIVE DISPLAYS –**

**Part 12-10: Measurement methods of touch displays –**
**Touch and electrical performance**

**C O R R I G E N D U M   1**

**5.4.2.2     Method 1**

*Replace the first sentence of the second paragraph with:*

The distance between the centre of the reported point and straight line is calculated by the formula in Figure 12.
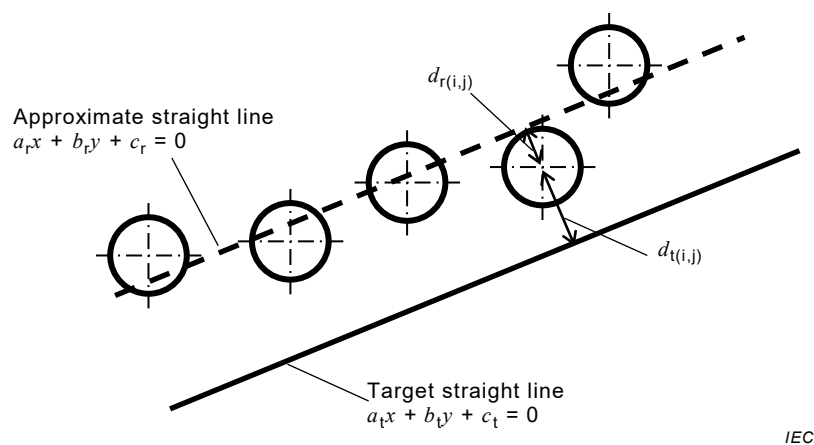
*Replace Figure 12 with:*



**Figure 12 – Linearity definition**

*Replace Equations (17) and (18) with:*

$$d_{r(i,j)} = \frac{\left| a_r x_{r(i,j)} + b_r y_{r(i,j)} + c_r \right|}{\sqrt{a_r^2 + b_r^2}} \tag{17}$$

$$d_{t(i,j)} = \frac{\left| a_t x_{r(i,j)} + b_t y_{r(i,j)} + c_t \right|}{\sqrt{a_t^2 + b_t^2}} \tag{18}$$

### 5.4.2.3    Method 2

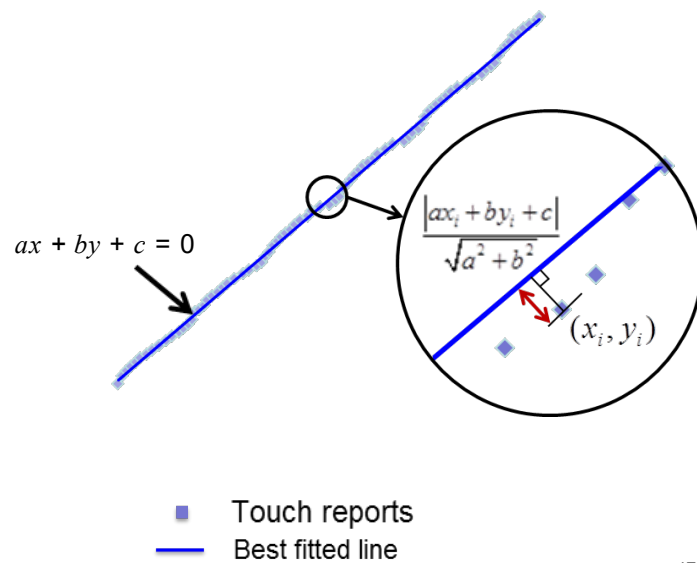*Replace the last sentence of the first paragraph with:*

If the best fitted line is represented as '*ax+by+c=0*', then the coefficients *a*, *b*, *c* and the linearity are calculated as in the following formulae.

*Replace Equations (21) and (22) with:*

$$
\begin{aligned}
a &= S_{xy} \\
b &= \lambda - S_{xx} \\
c &= -a\bar{x} - b\bar{y} \\
\bar{x} &= \frac{1}{n}\sum\nolimits_{i=1}^{n} x_i \\
\bar{y} &= \frac{1}{n}\sum\nolimits_{i=1}^{n} y_i \\
S_{xx} &= \sum\nolimits_{i=1}^{n}\left(x_i - \bar{x}\right)^2 \\
S_{yy} &= \sum\nolimits_{i=1}^{n}\left(y_i - \bar{y}\right)^2 \\
S_{xy} &= \sum\nolimits_{i=1}^{n}\left(x_i - \bar{x}\right)\left(y_i - \bar{y}\right) \\
\lambda &= \frac{S_{xx} + S_{yy} - \sqrt{D}}{2} \\
D &= \left(S_{xx} - S_{yy}\right)^2 + 4S_{xy}^{\,2}
\end{aligned}
\tag{21}
$$

$$
L = \underset{i=1,2,\ldots,n}{\mathrm{Max}}\left(\frac{|ax_i + by_i + c|}{\sqrt{a^2 + b^2}}\right)
\tag{22}
$$

*Replace Figure 13 with:*



$ax + by + c = 0$

$$\frac{|ax_i + by_i + c|}{\sqrt{a^2 + b^2}}$$

$(x_i, y_i)$

■ Touch reports
— Best fitted line

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**Figure 13 – Example of measurement and calculation of linearity**