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1. GENERAL

1.1. SCOPE OF VALIDITY

This norm describes technical and quality requirements of products AKI ELECTRONIC. This document is valid for all parts if are not described other requests in drawings, in a specification, respectively in an order.

Validity of this document is not limited only internally for AKI ELECTRONIC, but it also a basis for arrangements with customers. All variances, exceptions and special arrangements must be approved in writing by AKI ELECTRONICS and by a customer side.

1.2. Next notes

A user is not allowed to make its own changes (notes, inscriptions, etc.). Technical archive AKI ELECTRONIC has only authority to make any changes in this norm, which officially release changes in the controlled mode.

2. OPTICAL PARAMETERS

2.1. Center of a LED luminous point

All LEDs must be in a window center – maximal overlap is a 1/3 of a window, an illuminated area by LEDs must be fully visible. An offset is valid only for one-color LED. A center of illumination of a multi-color LED is a geometry center of all color illumination points. In this case is valid also that all color emitted points must be inside a window.

![Image of LED luminous point](image)

2.2. Type and number of defects of components and assembled units

Type and number of defects of an individual components (foil, glass, touch sensor, display, ...) are according to a manufacture’s specifications.

For assembled products from multiple components (foil, glass, touch sensor, display, ...) is a maximal allowed number of defects equal a sum of a maximum allowed defects of an individual components.

2.3. Optically clear adhesive (OCA)

When is optically clear adhesive used, it’s not always possible to eliminate bubbles, that can appears at a place of a crossing printed and not-printed area, it means in a place of a window. Maximum allowed distance of bubbles from window edge is 1mm.

2.4. Anodized surfaces

A hue of an anodized surface depends on many factors and can be different between production batches.

2.5. Glasses thermally strengthened

During a glass thermally strengthening process can appears additional optical defects.
2.6. **Protective foils**

Products with a capacitive touch sensor can be tested in a test device for check correct function. As a result of this test can appear visible lines on a protective foil in a shape of a testing pattern in a touch sensor active area or a display active area.

2.7. **Flatness**

It’s not possible to exclude noticeable elevations (protrusions, bulges, slopes) of front foils in areas of keyboard tails and input areas of inserted labels.

2.8. **Allowed line thickness fluctuations**

A minimal allowed line thickness fluctuation is ±0,1mm.

2.9. **Pillowing of resistive touch sensors**

Pillowing is a distortion of a top layer of a touch sensor. A maximum allowed pillowing is 0,4mm.

3. **STORAGE / SELF-LIFE OF A PRODUCT**

3.1. **Protective foils**

A protective foil or printed protective layer (Print&Peel) must be removed within 30 days of a delivery.

3.2. **Adhesive layer**

If a product/part has an adhesive layer (it means keyboard, self-adhesive gasket, layer, ...) must be this product glued/laminated within 6 months of a delivery.