Product Change Request

Product: Dragster CMOS Line Scanner Sensors
Change Number: 01
Title: Black Mask EK520 to SKT1000 change
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1 Information

Product ID: Dragster CMOS Line Scanner Sensors

Date of request: 21 of August 2017

Category: Cat 1 (Major) ☑️  Cat 2 (Minor) □

2 Description of change:

2.1 New Black Mask Material

To cover EOL (End Of Life) situation of the current black mask material EK520 at our current coating supplier, ams decided to qualify a new Black Mask material SKT1000.

Type of change:

☑️ Material change

☐ Process change

☐ Method change

☐ Other: New Cable Supplier

3 Motivation for change

☐ Yield enhancement

☐ Continuous improvement

☐ Quality / reliability

☐ Process stability

☐ Cost reduction

☐ Customer request

☑️ other: EOL of current material

4 Risk assessment / Evaluation of Impact

4.1 Cost of change

There will be no impact.
4.2 Impact on product pricing
There will be no impact.

4.3 Impact on materials
The material used for the black mask will change from the EK520 to SKT1000.

4.4 Impact on schedule
There will be no impact.

4.5 Impact on design
There will be no impact.

4.6 Impact on product performance
There will be no impact.

4.7 Impact on yield or process stability
There will be no impact.

4.8 Impact on supply chain
There will be no impact.

4.9 Impact on inventory
There will be no impact.

4.10 Impact on tooling and equipment
There will be no impact.

4.11 Impact on reliability/qualification status
There will be no impact.

4.12 Impact on packing & shipment
There will be no impact.

4.13 Impact on other customers/existing applications
There will be no impact.
4.14 Implementation of Change

4.15 Implementation date and schedule
The new black mask material will be introduced in the SC as soon as it is qualified. Its schedule for the qualification to be finish in CW45.

4.16 Verification strategy
Not applicable.

4.17 Traceability
The traceability of new black mask material will be assure by tracking the wafer batch.

4.18 Marking
Not applicable.

4.19 Documents to be updated
Not applicable.

5 Verification of implementation
Covered by the traceability.

6 Comments
Not applicable.
7 Attachments

7.1 Black Mask Coating Supplier internal qualification

In order to qualify the new black mask, the supplier has presented some initial results. Initial supplier results are considered PASS.

7.1.1 Transmittance, NK:

SKT1000 transmittance curve according to the wavelength is approximately the same as EK520.

N, K from 400nm to 1000nm of SKT1000.
7.1.2 Contamination inspection
Initial data provided by supplier is considered PASS.

7.1.2.1 Sensitive area

No imperfections, contamination, particles or any abnormalities were found in the sensitive area (pixel area).

7.1.2.2 Peeling of stitching area

No imperfections, peeling effects, contamination or abnormality were found in the stitching area.

7.1.2.3 Boundary flatness

Alignment of the masks as well as its flatness is considered to be ok.
7.1.2.4 Pads inspection

No contamination was found over the bond pads

7.2 Black Mask Coating ams qualification

ams is currently doing an internal qualification. Status and results are available on request.
8 Approvals

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<td>Product Engineering</td>
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<tr>
<td>Sales/Marketing/Product Management</td>
<td>Fabio Gaspar</td>
<td>04.10.17</td>
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<tr>
<td>Operations/Planning</td>
<td>Hélcio Dinis</td>
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If no written objection by customer is received until Oct. 31, 2017, this PCN is considered as accepted.