


# Product Document


|                                 |  |               |
|---------------------------------|--|---------------|
| <b>PCR</b>                      |  |               |
| <b>Reference: NanEye-PCR-11</b> | <b>Date:14.05.2018</b>   | <b>Page 1</b> |
|                                 | <b>Version 1</b>   |               |

## **Product Change Request**

**Product: NanEye camera modules**


**Change Number: 11**

**Title: NanEye2D Supply Chain update - new PN**

|                                 |  |        |
|---------------------------------|--|--------|
| <b>PCR</b>                      |  |        |
| <b>Reference: NanEye-PCR-11</b> | <b>Date:14.05.2018</b>   | Page 2 |
|                                 | <b>Version 1</b>   |        |

## Table of Contents

|  |          |
|--|----------|
| <b>1 Information</b> .....                                 | <b>3</b> |
| <b>2 Description of change:</b> .....                      | <b>3</b> |
| 2.1 NanEye2D Supply Chain update .....                     | 3        |
| <b>3 Motivation for change</b> .....                       | <b>3</b> |
| <b>4 Risk assessment / Evaluation of Impact</b> .....      | <b>4</b> |
| 4.1 Cost of change .....                                   | 4        |
| 4.2 Impact on product pricing.....                         | 4        |
| 4.3 Impact on schedule .....                               | 4        |
| 4.4 Impact on design.....                                  | 4        |
| 4.5 Impact on product performance .....                    | 4        |
| 4.6 Impact on yield or process stability .....             | 4        |
| 4.7 Impact on supply chain .....                           | 4        |
| 4.8 Impact on inventory .....                              | 4        |
| 4.9 Impact on tooling and equipment .....                  | 4        |
| 4.10 Impact on reliability/qualification status .....      | 4        |
| 4.11 Impact on packing & shipment .....                    | 5        |
| 4.12 Impact on other customers/existing applications ..... | 5        |
| <b>5 Implementation of Change</b> .....                    | <b>5</b> |
| 5.1 Implementation date and schedule.....                  | 5        |
| 5.2 Verification strategy .....                            | 5        |
| 5.3 Traceability.....                                      | 5        |
| 5.4 Marking .....  | 5        |
| 5.5 Documents to be updated.....                           | 5        |
| <b>6 Verification of implementation</b> .....              | <b>5</b> |
| <b>7 Comments</b> .....                                    | <b>5</b> |
| <b>8 Attachments</b> .....                                 | <b>5</b> |
| <b>9 Approvals</b> .....                                   | <b>6</b> |

|                                 |  |        |
|---------------------------------|--|--------|
| <b>PCR</b>                      |  |        |
| <b>Reference: NanEye-PCR-11</b> | <b>Date:14.05.2018</b>   | Page 3 |
|                                 | <b>Version 1</b>   |        |

## 1 Information

Product ID: *NanEye Camera modules*

Date of request: *15 of May 2018*

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

## 2 Description of change:

### 2.1 NanEye2D Supply Chain update

*In order to ensure the continuous improvement and the reinforcement the NanEye2D supply chain, ams has transferred the final inspection and packing of the selling NanEye2D SGA (2x2) chips directly to our Subcontractor. This change will assure that the material delivered by ams is 100% inspected at our main subcontractor.*

*Due to this update in the supply chain, the formally supplied PN 301190010 and PN 301200014 will now be replaced by the respective PN 301190021 (NE2D\_CHIP\_RGB\_SGA CON FT SE) and PN 301200033(NE2D\_CHIP\_B&W\_SGA CON FT SE).*


*With this update, ams has the clear objective to create a more robust, efficient and quality driven NanEye2D supply chain, supporting all customers' quality and forecast speciation's.*

Type of change:

- Material change
- Process change
- Method change
- Other: New supplier introduction

## 3 Motivation for change

- Yield enhancement
- Continuous improvement (more robust supply chain)
- Quality / reliability
- Process stability
- Cost reduction

|                                 |  |        |
|---------------------------------|--|--------|
| <b>PCR</b>                      |  |        |
| <b>Reference: NanEye-PCR-11</b> | <b>Date:14.05.2018</b>   | Page 4 |
|                                 | <b>Version 1</b>   |        |

Customer request

other:

## **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 schedule**

*There will be no impact.*

### **4.4 Impact on design**

*There will be no impact.*

### **4.5 Impact on product performance**

*There will be no impact.*

### **4.6 Impact on yield or process stability**

*There will be no major impact.*

### **4.7 Impact on supply chain**

*The supply chain will be updated in order to introduce the new PN.*

### **4.8 Impact on inventory**


*All material in inventory will go through additional inspection at Focuz before delivery to customer and will be delivered as new part number.*

### **4.9 Impact on tooling and equipment**

*There will be no impact.*

### **4.10 Impact on reliability/qualification status**

*There will be no impact.*

|                                 |  |        |
|---------------------------------|--|--------|
| <b>PCR</b>                      |  |        |
| <b>Reference: NanEye-PCR-11</b> | <b>Date:14.05.2018</b>   | Page 5 |
|                                 | <b>Version 1</b>   |        |

#### **4.11 Impact on packing & shipment**

*There will be no impact. Subcontractor will follow ams packing specification document.*

#### **4.12 Impact on other customers/existing applications**

*There will be no impact.*

### **5 Implementation of Change**

#### **5.1 Implementation date and schedule**

*ams will introduce the new PN into the supply chain and expects to be able to deliver the new PNs in CW22.*

#### **5.2 Verification strategy**

*Sample cameras have been inspected and packed at subcontractor according to ams requirements.*

#### **5.3 Traceability**

*The assembly batch ID number in SAP will ensure traceability.*

#### **5.4 Marking**

*Not applicable.*

#### **5.5 Documents to be updated**

*Mechanical drawings of the PN 301190021 and 301200033 will be updated for new part number (internal document).*

*BOM and SAP flow will be updated to introduce the new PN in the supply chain.*

*Necessary documentation is prepared by subcontractor (Process flow, control plan, inspection WI, packing specification)*

### **6 Verification of implementation**


*First production batch will be inspected by ams before delivery to customer to ensure inspection and packing is performed according to ams requirements.*

### **7 Comments**

*None.*

### **8 Attachments**

*None.*

|                          |   |        |
|--------------------------|---|--------|
| <b>PCR</b>               | <b>am</b>  |        |
| Reference: NanEye-PCR-11 | Date: 14.05.2018  | Page 6 |
|                          | Version 1   |        |

## 9 Approvals

ams:

| Dept                               | Name               | Date       | Signature  |
|------------------------------------|--------------------|------------|--|
| Product Engineering                | Alireza Roudi      | 16.05.2018 |    |
| Sales/Marketing/Product Management | Antonio Gomez      | 16.05.18   |    |
| Operations/SCM                     | Honore Dims        | 16.05.18   |   |
| Project Management                 | Christian Hackmann | 17.05.2018 |  |
| Quality                            | Stefan Cus         | 18.05.2018 |  |
| Assembly Engineering               | Francisco Dims     | 16.05.2018 |  |