



## PRODUCT / PROCESS CHANGE NOTIFICATION

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### AS39xx NFC / RFID Reader IC Products purchased from ams AG

#### What is the change?

##### In a first phase (Phase 1):

- The **ordering part numbers** of the **AS39xx NFC / RFID readers** will change from **AS39xx-yyyy** to **ST25R39xx-yyyy** for the HF readers and **ST25RU39xx-yyyy** for the UHF readers.
- The labelling will change as well, following the new ST ordering part numbers.
- Reel size will be standardized to 13 inches diameter with one single minimum bulk order quantity.
- For wafer deliveries, the wafer maps file name will change.

##### In a second phase (Phase 2):

- The **final test & finishing location** will move from ams (Philippines) to KYEC (Taiwan).
- The **marking** will change from **AS39xx** to **25R39xx**.
- The **labelling** will change to **standard ST label**.

The die of the IC's remains the same and wafers are still produced in the same factories as before. No functionality or parameter changes will be applied. The package remain unchanged and is still done by the same sub-contractors as before.

New orders for deliveries that shall occur after January 1<sup>st</sup> 2017 must be placed to STMicroelectronics based on the new ordering part number.

#### Why?

Because of the recent purchase of the NFC/RFID readers business acquired from ams AG, STMicroelectronics requires to migrate the purchase orders from ams to STMicroelectronics.

#### When?

- **Orders** to ST of the new part numbers are possible upon receiving this document
- The **delivery** with the **new ordering part numbers** will start **from January 1<sup>st</sup> 2017**.
- The **shipment** of parts with the **new marking** will start **from May 2017** on.

#### How will the change be qualified?

The new KYEC test location will be qualified using the standard ST Microelectronics Corporate Procedures for Quality & Reliability.

#### What is the impact of the change?

- **Form:** Marking change (phase 2 only)
- **Fit:** No change
- **Function:** No change

How can the change be seen?

- CURRENT ams INNER BOX LABEL




- PHASE 1 INNER BOX LABEL: Modified ams label with **ST logo**, new **ST ordering part numbers** and **bulk ID**.



- PHASE 2 INNER BOX LABEL (ST standard label)

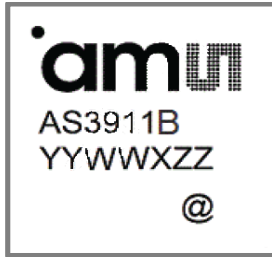
➔ Example for ST25R3911B-AQFT

<b>STMicroelectronics</b>	Manufactured under patents or patents pending
	Country Of Origin: XXXX
	Pb-free 2 <sup>nd</sup> Level Interconnect
	MSL: 1 NOT MOISTURE SENSITIVE
	PBT: 260 °C Category: e4 ECOPACK2/ROHS
	<b>TYPE: ST25R3911B-AQFT 25R3911BAQFT1VKB</b>
	Total Qty: <b>4000</b>
	<b>Trace Codes</b> PPYWLLLL WX TF
	<b>Marking</b> 25R3911B
	<b>Bulk ID</b> X0X00XXX0000
	
Please provide the bulk ID for any inquiry	

**- DEVICE MARKING:**

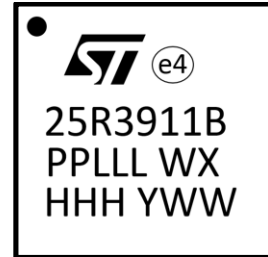
- Example for QFN: AS3911B

**Current ams marking**



Legend:  
**AS3911B** = Product name  
**YY** = Assembly year  
**WW** = Assembly week  
**X** = Subcon. assembly code  
**ZZ** = Sequence  
**@** = Sublot id

**New ST marking**



Legend:  
**25R3911B** = Product name  
**PP** = Assembly plant  
**LLL** = Sequence  
**WX** = Wafer plant  
**HHH** = Country of origin  
**Y** = Assembly year  
**WW** = Assembly week

**- INKLESS WAFER MAP FILE NAME CHANGE:**

The new file name of the wafer maps will be **Lot ID\_ZIP.ZIP** (ZIP file will contain same ANAM file format as before).

**Appendix A- Product Change Information**

<b>Product family / Commercial products:</b>	NFC/RFID readers
<b>Customer(s):</b>	All
<b>Type of change:</b>	<ul style="list-style-type: none"> <li>- Ordering/labelling part number change</li> <li>- Final test &amp; finishing location/marketing change</li> </ul>
<b>Reason for the change:</b>	ams AG NFC/RFID readers business was acquired by STMicroelectronics
<b>Description of the change:</b>	<ul style="list-style-type: none"> <li>- Phase 1: New ST ordering part numbers</li> <li>- Phase 2: Final Test &amp; finishing location change from ams (Philippines) to KYEC (Taiwan)</li> </ul>
<b>Forecast date of the change: (Notification to customer)</b>	<ul style="list-style-type: none"> <li>- Phase 1: January 1<sup>st</sup> 2017</li> <li>- Phase 2: Starting May 2017</li> </ul>
<b>Forecast date of <u>Qualification samples</u> availability for customer(s):</b>	See details in APPENDIX B
<b>Forecast date for the internal STMicroelectronics change, <u>Qualification Report</u> availability:</b>	See Qualification Plan inside this document
<b>Marking to identify the changed product:</b>	HF readers: <b>25R39xx</b> UHF readers <b>25RU39xx</b>
<b>Description of the qualification program:</b>	Standard ST Microelectronics Corporate Procedures for Quality and Reliability See details in APPENDIX D
<b>Product Line(s) and/or Part Number(s):</b>	See APPENDIX B
<b>Estimated date of first shipment:</b>	See details in APPENDIX C

**Appendix B: Concerned Commercial Part Numbers:**

Reader	ams part number	ST part number	Package	Qualification samples (Phase 2)
HF	AS3909-BQTT	ST25R3909-BQTT	QFN32	Not applicable (*)
HF	AS3909-BQTM			
HF	AS3910-BQFT	ST25R3910-BQFT	QFN32	June 2017
HF	AS3911-BQFT	ST25R3911-BQFT	QFN32	May 2017
HF	AS3911B-AQFT	ST25R3911B-AQFT	QFN32	May 2017
HF	AS3911B-AQFM			
HF	AS3911B-ASWB	ST25R3911B-ASWB	Wafer	September 2017
HF	AS3912-BQFM	ST25R3912-BQFT	QFN32	May 2017
HF	AS3913-BQFM	ST25R3913-BQFT	QFN32	May 2017
HF	AS3914-AQFT	ST25R3914-AQFT	QFN32	4Q 2017
HF	AS3914-AQFM			
HF	AS3915-AQFT	ST25R3915-AQFT	QFN32	4Q 2017
HF	AS3915-AQFM			
UHF	AS3980-BQFT	ST25RU3980-BQFT	QFN48	May 2017
UHF	AS3980-BQFM			
UHF	AS3991-BQFT	ST25RU3991-BQFT	QFN64	Not applicable (**)
UHF	AS3991-BQFM			
UHF	AS3992-BQFT	ST25RU3992-BQFT	QFN64	May 2017
UHF	AS3992-BQFM			
UHF	AS3993-BQFT	ST25RU3993-BQFT	QFN48	May 2017
UHF	AS3993-BQFM			

(\*) Customers using the AS3909 product are required to place further orders on the ST25R3910 product, which is equivalent in features.

(\*\*) Customers using the AS3991 product are required to place further orders on the ST25R3992 product, which is equivalent in features.

**Appendix C: Timeline for each product:**

ams part number	ST part number	from Jan 1 <sup>st</sup> 2017
AS3909-BQTT	ST25R3909-BQTT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change
AS3909-BQTM		
AS3991-BQFT	ST25RU3991-BQFT	T&F location: ams, no change Marking: ams, no change
AS3991-BQFM		

ams part number	ST part number	Phase 1 from Jan 1 <sup>st</sup> 2017	Phase 2 from May 2017
AS3910-BQFT	ST25R3910-BQFT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	<b>Ordering/Labelling: Phase 2 label</b> ams, no change ASE, no change
AS3911-BQFT	ST25R3911-BQFT		<b>New KYEC test location</b> <b>New ST marking</b>
AS3911B-AQFT	ST25R3911B-AQFT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: TSMC, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	<b>Ordering/Labelling: Phase 2 label</b> TSMC, no change ASE, no change <b>New KYEC test location</b> <b>New ST marking</b>
AS3911B-AQFM			
AS3912-BQFM	ST25R3912-BQFT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	<b>Ordering/Labelling: Phase 2 label</b> ams, no change ASE, no change <b>New KYEC test location</b> <b>New ST marking</b>
AS3913-BQFM	ST25R3913-BQFT		
AS3914-AQFT	ST25R3914-AQFT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	<b>Ordering/Labelling: Phase 2 label</b> ams, no change ASE, no change <b>New KYEC test location</b> <b>New ST marking</b>
AS3914-AQFM			
AS3915-AQFT	ST25R3915-AQFT	<b>Ordering/Labelling: Phase 1 label</b> Wafer fab: TSMC, no change T&F location: ams, no change <b>New ST inkless file name</b>	<b>Ordering/Labelling: Phase 2 label</b> TSMC, no change <b>New KYEC test location</b> <b>New ST inkless file name</b>
AS3915-AQFM			
AS3911B-ASWB	ST25R3911B-ASWB	<b>Ordering/ Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	Phase 1 label, no change ams, no change ASE, no change ams, no change <b>New ST marking</b>
AS3980-BQFT	ST25RU3980-BQFT		
AS3980-BQFM	ST25RU3992-BQFT	<b>Ordering/ Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	ams, no change ASE, no change ams, no change <b>New ST marking</b>
AS3992-BQFT			
AS3992-BQFM	ST25RU3993-BQFT	<b>Ordering/ Labelling: Phase 1 label</b> Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	ams, no change ASE, no change ams, no change <b>New ST marking</b>
AS3993-BQFT			
AS3993-BQFM			

T&amp;F = Test &amp; Finishing

**Appendix D: Qualification Plan:**

Test	Method	Conditions	Duration	Sample size	Lots	Acceptance Criteria
Automation / program loading	-	-	-	-	1 lot	No major concern
Electrical test	Correlation exercise	-	-	30 000	1 lot	No major concern No yield degradation 100% bin to bin
Line stressing	Yield follow	Production	3 months	30 000	all lots	No major concern No yield degradation No quality degradation

**KYEC test transfer qualification plan**





## PRODUCT / PROCESS CHANGE NOTIFICATION

AS39xx NFC/RFID Reader IC Products purchased from ams AG

APPROVAL TABLE			
Signed by	Name	Approval signature.	Approval date
NFC reader competence center manager	Mark DICKSON		
NFC reader marketing	Rene WUTTE		
Operation Manuf. Mgr	Nicolas TOURNEUR		
RF Memory Technical Marketing Mgr	Sylvain FIDELIS		
Planning Mgr	Sophie NADEAU		
New Product Planning	Pierre-François OGIER		
Qualification Mgr	Jean-Philippe CANDELA		
Doc Control Mgr	Laurence CAZES		
Quality Mgr (Last before Div. GM)	Rita PAVANO		
Division Product Mgr:	Benoit RODRIGUES		
Originator	Christian POLI		