



PRODUCT / PROCESS CHANGE NOTIFICATION

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 1st 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 1st 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

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

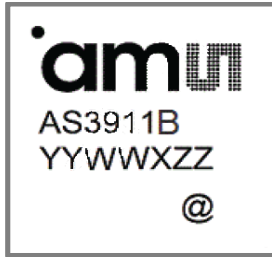


Please provide the bulk ID for any inquiry

- DEVICE MARKING:

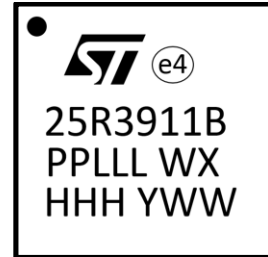
- Example for QFN: AS3911B

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

Product family / Commercial products:	NFC/RFID readers
Customer(s):	All
Type of change:	<ul style="list-style-type: none"> - Ordering/labelling part number change - Final test & finishing location/marketing change
Reason for the change:	ams AG NFC/RFID readers business was acquired by STMicroelectronics
Description of the change:	<ul style="list-style-type: none"> - Phase 1: New ST ordering part numbers - Phase 2: Final Test & finishing location change from ams (Philippines) to KYEC (Taiwan)
Forecast date of the change: (Notification to customer)	<ul style="list-style-type: none"> - Phase 1: January 1st 2017 - Phase 2: Starting May 2017
Forecast date of <u>Qualification samples</u> availability for customer(s):	See details in APPENDIX B
Forecast date for the internal STMicroelectronics change, <u>Qualification Report</u> availability:	See Qualification Plan inside this document
Marking to identify the changed product:	HF readers: 25R39xx UHF readers 25RU39xx
Description of the qualification program:	Standard ST Microelectronics Corporate Procedures for Quality and Reliability See details in APPENDIX D
Product Line(s) and/or Part Number(s):	See APPENDIX B
Estimated date of first shipment:	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 st 2017
AS3909-BQTT	ST25R3909-BQTT	Ordering/Labelling: Phase 1 label 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 st 2017	Phase 2 from May 2017
AS3910-BQFT	ST25R3910-BQFT	Ordering/Labelling: Phase 1 label Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	Ordering/Labelling: Phase 2 label ams, no change ASE, no change New KYEC test location New ST marking
AS3911-BQFT	ST25R3911-BQFT		
AS3911B-AQFT	ST25R3911B-AQFT	Ordering/Labelling: Phase 1 label Wafer fab: TSMC, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	Ordering/Labelling: Phase 2 label TSMC, no change ASE, no change New KYEC test location New ST marking
AS3911B-AQFM			
AS3912-BQFM	ST25R3912-BQFT	Ordering/Labelling: Phase 1 label Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	Ordering/Labelling: Phase 2 label ams, no change ASE, no change New KYEC test location New ST marking
AS3913-BQFM	ST25R3913-BQFT		
AS3914-AQFT	ST25R3914-AQFT	Ordering/Labelling: Phase 1 label Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	Ordering/Labelling: Phase 2 label ams, no change ASE, no change New KYEC test location New ST marking
AS3914-AQFM			
AS3915-AQFT	ST25R3915-AQFT	Ordering/Labelling: Phase 1 label Wafer fab: TSMC, no change T&F location: ams, no change New ST inkless file name	Ordering/Labelling: Phase 2 label TSMC, no change New KYEC test location New ST inkless file name
AS3915-AQFM			
AS3911B-ASWB	ST25R3911B-ASWB	Ordering/ Labelling: Phase 1 label 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 New ST marking
AS3980-BQFT	ST25RU3980-BQFT		
AS3980-BQFM	ST25RU3992-BQFT	Ordering/ Labelling: Phase 1 label Wafer fab: ams, no change Assembly location: ASE, no change T&F location: ams, no change Marking: ams, no change	New ST marking
AS3992-BQFT			
AS3992-BQFM	ST25RU3993-BQFT		
AS3993-BQFT			
AS3993-BQFM			

T&F = Test & 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

Document Revision History		
Date	Rev.	Description of the Revision
October 28, 2016	V01	First revision

Source Documents & Reference Documents		
Source document Title	Rev.:	Date:

PRODUCT / PROCESS CHANGE NOTIFICATION

AS39xx NFC/RFID Reader IC Products purchased from ams AG

APPROVAL TABLE			
Signed by	Name	Approval signature.	Approval date
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RF Memory Technical Marketing Mgr	Sylvain FIDELIS		
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