

PRODUCT / PROCESS CHANGE INFORMATION

1. PCI basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCI No.		MDG/22/13426
1.3 Title of PCI		Datasheet update to clarify settings for Reader mode and thresholds for AP2P mode for ST25R3911B/12/14/15 and ST25R3916/17/18/20
1.4 Product Category		ST25R3911B-AQWT ST25R3911B-AQFT ST25R3912-AQWT ST25R3914-AQWT ST25R3915-AQWT ST25R3916-AQWT ST25R3916-BWLT ST25R3917-AQWT ST25R3918-AQWT ST25R3920-AQWT
1.5 Issue date		2022-05-09

2. PCI Team

2.1 Contact supplier	
2.1.1 Name	ROBERTSON HEATHER
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2.2 Change responsibility	
2.2.1 Product Manager	Benoit RODRIGUES
2.2.2 Marketing Manager	Sylvain FIDELIS
2.2.3 Quality Manager	Rita PAVANO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
General Product & Design	Modification of datasheet :parameters/electrical specification (min./max./typ. values) and/or AC/DC specification	N/A

4. Description of change

	Old	New
4.1 Description	The datasheets for ST25R3911B/12/14/15 and ST25R3916/17/20...	...have been updated to include guidance of the external field detector mechanism in case of R/W and NFCIP-1 Active communication (AP2P) modes.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	- Form: No change - Fit: No change - Function: No change	

5. Reason / motivation for change

5.1 Motivation	The strategy of STMicroelectronics Memory Division to constantly improve and if necessary, clarify our documentations to reduce development times. This is done by clarifying content if seen required and adding additional data as soon as available and deemed helpful for development.
5.2 Customer Benefit	QUALITY IMPROVEMENT

6. Marking of parts / traceability of change

6.1 Description	N/A
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7. Timing / schedule

7.1 Date of qualification results	2022-05-04
7.2 Intended start of delivery	2022-05-04

7.3 Qualification sample available?	Not Applicable
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8. Qualification / Validation		
8.1 Description		
8.2 Qualification report and qualification results	In progress	Issue Date

9. Attachments (additional documentations)	
13426 Public product.pdf 13426 Draft PCI ST25R3911-20 threshold_v0.7.pdf	

10. Affected parts		
10. 1 Current		10.2 New (if applicable)
10.1.1 Customer Part No	10.1.2 Supplier Part No	10.1.2 Supplier Part No
	ST25R3911B-AQFT	
	ST25R3912-AQWT	
	ST25R3914-AQWT	
	ST25R3916-AQWT	
	ST25R3917-AQWT	
	ST25R3918-AQWT	
	ST25R3920-AQWT	

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Datasheet update to clarify settings for Reader mode and thresholds for AP2P mode for ST25R3911B/12/14/15 and ST25R3916/17/18/20

What is the change?

The datasheets for ST25R3911B/12/14/15 and ST25R3916/17/20 have been updated to include guidance of the external field detector mechanism in case of R/W and NFCIP-1 Active communication (AP2P) modes.

ST25R3916/17/18/20:

The NFC field ON commands section in ST25R3916/17/20 Datasheet clarifies the recommended threshold setting in AP2P which can be set in the **external field detector activation threshold register bits rfe_t<3:0> and trg_l<3:0>**. 205mV is now mentioned as the minimum threshold for NFCIP-1 rfe and trg activation thresholds which can be used for NFCIP-1

In addition, in the “**Operation control register**”, recommendation for bit setting of **en_fd_c<1:0>** for reader mode have been added in the ST25R3916/17/18/20 datasheets.

ST25R3911B/12/14/15:

The External field detector section in ST25R3911B/12/14/15 Datasheet clarifies the recommended threshold setting which can be set in the **external field detector activation threshold register bits rfe_t<3:0>**

In the ST25R3911B/12/14/15 datasheet recommendation for the usage of **efd_o** bit for R/W operation was added in the **External field detector** section

For AP2P mode the junction temperature is limited to -40 to 75°C

Additionally, VDD_IO range vs SPI speed was added in table 125 and a note for the setting of rfe_3 in the field detector registers was added for clarification in ST25R3916/17/18 datasheet.

Why?

The strategy of STMicroelectronics Memory Division to constantly improve and if necessary, clarify our documentations to reduce development times. This is done by clarifying content if seen required and adding additional data as soon as available and deemed helpful for development.

When?

Implemented with datasheet version

ST25R3920:	Rev7
ST25R3916/17:	Rev5
ST25R3918:	Rev3
ST25R3911B:	Rev7
ST25R3912:	Rev8
ST25R3914/15:	Rev7

How will the change be qualified?

There is no change on the product whatsoever, the first datasheet version implementing above items can be identified by the above version numbers.

What is the impact of the change?

- Form:** No change
- Fit:** No change
- Function:** No change

Product family / Commercial products:	ST25R3911B/3912/3914/3915 ST25R3916/3917/3918/3920
Customer(s):	All
Type of change:	Datasheet update
Reason for the change:	Clarify settings for Reader mode and thresholds for AP2P mode SPI speed vs VDD_IO
Description of the change:	Correct use guidance of the external field detector mechanism in case of R/W and NFCIP-1 Active communication (AP2P) mode (Additional text has been added to the datasheet) Added VDD_IO range to SPI characteristics
Forecast date of the change: (Notification to customer)	Week 18 / 2022
Forecast date of <u>Qualification samples</u> availability for customer(s):	N/A
Forecast date for the internal STMicroelectronics change, <u>Qualification Report</u> availability:	N/A
Marking to identify the changed product:	No change
Product Line(s) and/or Part Number(s):	ST25R3911B-AQWT ST25R3911B-AQFT ST25R3912-AQWT ST25R3914-AQWT ST25R3915-AQWT ST25R3916-AQWT ST25R3916-BWLT ST25R3917-AQWT ST25R3918-AQWT ST25R3920-AQWT
Manufacturing location:	N/A
Estimated date of first shipment:	N/A

Document Revision History

Source Documents & Reference Documents

Source document Title	Rev.:	Date:



Public Products List

Public Products are off the shelf products. They are not dedicated to specific customers, they are available through ST Sales team, or Distributors, and visible on ST.com

PCI Title : Datasheet update to clarify settings for Reader mode and thresholds for AP2P mode for ST25R3911B/12/14/15 and ST25R3916/17/18/20

PCI Reference : MDG/22/13426

Subject : Public Products List

Dear Customer,

Please find below the Standard Public Products List impacted by the change.

ST25R3911B-AQFT	ST25R3915-AQWT	ST25R3912-AQWT
ST25R3916-BWLT	ST25R3920-AQWT	ST25R3918-AQWT
ST25R3917-AQWT	ST25R3916-AQWT	ST25R3914-AQWT
ST25R3911B-AQWT		



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