



Advance Product Change Notification

202112006A : New Wafer Source for SmartMX3 P71 and SE05x Products

Note: This notice is NXP Company Proprietary.

Issue Date: Mar 15, 2022

Here is your personalized notification about a NXP general announcement.

For detailed information we invite you to [view this notification online](#)

Management summary

NXP is making an additional wafer foundry available for the CMOS040 technology used to manufacture wafers for P71 and SE05x products. For orders after the change, NXP planners can source material from one of two possible foundries. The commercial type naming scheme is adapted to make this dual-sourcing possible without changes to existing customer ordering type names or 12NCs (ordering codes).

Change Category

<input type="checkbox"/> Wafer Fab Process	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Product Marking	<input type="checkbox"/> Test Process	<input type="checkbox"/> Design
<input type="checkbox"/> Wafer Fab Materials	<input type="checkbox"/> Assembly Materials	<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Equipment	<input type="checkbox"/> Errata
<input checked="" type="checkbox"/> Wafer Fab Location	<input type="checkbox"/> Assembly Location	<input checked="" type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Location	<input type="checkbox"/> Electrical spec./Test coverage
<input type="checkbox"/> Firmware	<input type="checkbox"/> Other			

PCN Overview

Description

Besides the existing source for wafers, a second source will become available after the change. This is Globalfoundries fab 1 in Dresden, Germany (GF1). This foundry will produce products with the same form, fit and function as the existing source (Globalfoundries fab 7 in Singapore, GF7). GF1 has the same quality and security certifications like GF7. NXP is performing an extensive qualification process to ensure wafer supplies are equivalent from both sources in all observable aspects.

To help our customers execute future orders in a more flexible way, the type naming scheme for affected parts is changing. There is a change in the coding for the letter that identifies wafer source. The letter "z", which previously had the meaning "wafer source GF7" will have the meaning "wafer source GF1 or GF7" after the change. Individual customer orders will typically be fulfilled only from one single source each, not from a mixture of both sources.

Due to differences in the top oxide layers, wafers from GF1 overall may have a different overall color appearance than wafers from GF7, especially in the saw lanes. Furthermore, the laser marking of the batch number on the wafer has a different visual appearance. These differences are specified in an updated wafer specification document, available from NXP DocStore.

Reason

NXP strives to provide larger flexibility to customers and our production fulfilment. Being able to source wafers for SmartMX3 P71 and for EdgeLock SE05x products from more than one source will provide a more resilient supply situation. In the light of the global semiconductor supply broadly discussed in public media, we believe this change will be helpful.

Identification of Affected Products

Packing Labels

Shipping labels for wafer material always includes a statement of the country of origin (COO). COO for the previously existing GF7 location is Singapore, while COO for the new location GF1 is Germany.

Furthermore, for products delivered to customers in wafer form factor, the wafer lot numbers have a recognizably different format between materials sourced from GF7 and from GF1.

Product Availability

Sample Information

Samples are available from May 31, 2022

Anticipated Impact on Form, Fit, Function, Reliability or Quality

No Impact on form, fit, function, reliability or quality

Data Sheet Revision

A new datasheet will be issued

Disposition of Old Products

"old products" does not apply, as GF7 will still remain a valid wafer production source also after the change.

Additional information

Self qualification: [view online](#)

Timing and Logistics

The Self Qualification Report will be ready on May 31, 2022.

The Final PCN is planned to be issued on: May 31, 2022.

In compliance with JEDEC J-STD-046, your acknowledgement of this change is expected by Apr 14, 2022.

Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact NXP "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local NXP Sales Support team.

For specific questions on this notice or the products affected please contact our specialist directly:

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NXP Quality Management Team.

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Changed Orderable Part#	12NC	Product Type	Product Description	Package Outline	Package Description	Product Status	Customer Specific Indicator	New Orderable Part#	12NC New	Product Type New	Product Description New	Product Line	Notes
A5000R2HQ1/Z016UZ	935426225472	A5000R2HQ1/Z016U	A50 Authenticator	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	
SE051W2HQ1/Z01J4Z	935429788472	SE051W2HQ1/Z01J4	SE051W IoT Secure Element	H(X2)QFN20	SOT1969-1	ASM	No					BLT1	
SE051W2HQ1/Z013YZ	935420897472	SE051W2HQ1/Z013Y	SE051W IoT Secure Element	H(X2)QFN20	SOT1969-1	DEV	No					BLT1	
SE051H1HQ1/Z013XZ	935420896472	SE051H1HQ1/Z013X	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	DEV	No					BLT1	
SE051C2HQ1/Z01XSZ	935416619472	SE051C2HQ1/Z01XS	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	
SE051P2HQ1/Z011AZ	935409596472	SE051P2HQ1/Z011A	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	
SE051A2HQ1/Z01XEZ	935414458472	SE051A2HQ1/Z01XE	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	
SE051S2HQ1/Z01XEZ	935436034472	SE051S2HQ1/Z01XE	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	CQS	No					BLT1	
SE051C2HQ1/Z01XDZ	935414457472	SE051C2HQ1/Z01XD	SE050/SE051 IoT Secure Element	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	
SE050D2HQ1/Z01PAZ	935402369472	SE050D2HQ1/Z01PA	SE050 IoT Secure Element	H(X2)QFN20	SOT1969-1	RFS	No					BLT1	

