PRODUCT / PROCESS CHANGE NOTIFICATION

| 1. PCN basic data | | |
|----------------------|--|--|
| 1.1 Company | | STMicroelectronics International N.V |
| 1.2 PCN No. | | MDG/19/10457 |
| 1.3 Title of PCN | | ASE Kaohsiung (Taiwan) additional source for WLCSP 12" |
| 1.4 Product Category | | WLCSP 12" listed products |
| 1.5 Issue date | | 2019-04-17 |

| 2. PCN Team | |
|---------------------------|----------------------------|
| 2.1 Contact supplier | |
| 2.1.1 Name | ROBERTSON HEATHER |
| 2.1.2 Phone | +1 8475853058 |
| 2.1.3 Email | heather.robertson@st.com |
| 2.2 Change responsibility | |
| 2.2.1 Product Manager | Ricardo Antonio DE SA EARP |
| 2.1.2 Marketing Manager | Veronique BARLATIER |
| 2.1.3 Quality Manager | Pascal NARCHE |

| 3. Change | | |
|--------------|---|----------------------------|
| 3.1 Category | 3.2 Type of change | 3.3 Manufacturing Location |
| | Line transfer for a full process or process brick (process step, control plan, recipes) from one site to another site: Assembly site (SOP 2617) | ASE Kaohsiung Taiwan |

| 4. Description of change | | | |
|---|---|-----|--|
| | Old | New | |
| 4.1 Description | Back-end source: - Stats ChipPAC Singapore (SCS) WLCSP8" - ASE Kaohsiung WLCSP8" - Amkor ATT Taiwan WLCSP12" - Amkor ATT Taiwan WLCSP12" - ASE Kaohsiung Taiwan WLCSP12" - ASE Kaohsiung Taiwan Additional source for WLCSP12" - For more information, please refer to PCN10457 – Additional information attached document. Ball A1 identifier remains in the same corner but might change in terms of form and positioning. Marking position and size could be different upon assembly site, without any loss of information. | | |
| 4.2 Anticipated Impact on form,fit, function, quality, reliability or processability? | | | |

| 5. Reason / motivation for change | |
|-----------------------------------|--|
| | Due to the success on the market of STM32 devices, ST Microcontrollers Division decided to qualify an additional back-end site to maintain state of the art service level to our customers thanks to extra capacity. |
| 5.2 Customer Benefit | CAPACITY INCREASE |

| 6. Marking of parts / traceability of change | |
|--|---|
| | Change is visible in the marking. Please refer to PCN 10457 – Additional information attached document. |

| 7. Timing / schedule | |
|-------------------------------------|--------------|
| 7.1 Date of qualification results | 2019-06-14 |
| 7.2 Intended start of delivery | 2019-07-14 |
| 7.3 Qualification sample available? | Upon Request |

| 8. Qualification / Validation | | | |
|---|----------------------------|---------------|-----------------|
| 3.1 Description 10457 MDG-MCD-RER1909-PCN 10457-ASE Kaohsiung additional source for WLCSP12pptx.pdf | | | VLCSP12pptx.pdf |
| 8.2 Qualification report and qualification results | Available (see attachment) | Issue Date | 2019-04-17 |

9. Attachments (additional documentations)

10457 Public product.pdf 10457 MDG-MCD-RER1909-PCN 10457-ASE Kaohsiung additional source for WLCSP12pptx.pdf 10457 PCN10457_Additional information.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 |
| | STM32F205REY6TR | |
| | STM32F205RGY6TR | |
| | STM32F401CEY6TR | |
| | STM32F405OGY6TR | |
| | STM32F411CEY6TR | |
| | STM32F415OGY6TR | |
| | STM32F439ZIY6TR | |
| | STM32F446MEY6TR | |
| | STM32F746ZEY6TR | |
| | STM32F746ZGY6TR | |
| | STM32L011E4Y6TR | |
| | STM32L031E6Y6TR | |
| | STM32L051T6Y6TR | |
| | STM32L051T8Y6DTR | |
| | STM32L051T8Y6TR | |
| | STM32L052T8Y6TR | |
| | STM32L071CZY6TR | |
| | STM32L082CZY6TR | |
| | STM32L151VEY6TR | |
| | STM32L431CCY6TR | |
| | STM32L431RBY6TR | |
| | STM32L431RCY6TR | |
| | STM32L433CCY6TR | |
| | STM32L433RBY6TR | |
| | STM32L433RCY6TR | |
| | STM32L443CCY6TR | |
| | STM32L443RCY6TR | |
| | STM32L451REY6TR | |
| | STM32L452REY6TR | |
| | STM32L462REY6TR | |
| | STM32L476JEY6TR | |
| | STM32L476JGY6TR | |
| | STM32L476MEY6TR | |
| | STM32L476MGY6TR | |
| | STM32L486JGY6TR | |
| | STM32L496VGY6PTR | |
| | STM32L496VGY6TR | |
| | STM32L4A6VGY6PTR | |
| | STM32L4R5ZIY6TR | |

| | STM32L4R9ZIY6TR | |
|--|-----------------|--|
| | STM32L4S9ZIY6TR | |



Public Products List

Publict 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

PCN Title: ASE Kaohsiung (Taiwan) additional source for WLCSP 12"

PCN Reference: MDG/19/10457

Subject: Public Products List

Dear Customer,

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

| STM32F405OGY6TR | STM32F413MHY6TR | STM32F439ZGY6TR |
|------------------|------------------|------------------|
| STM32L072CZY3TR | STM32F429ZGY6TR | STM32L031E6Y6DTR |
| STM32L072CZY6TR | STM32F439ZIY6TR | STM32L051T6Y6TR |
| STM32F405OEY6TR | STM32F412RGY6TR | STM32F446MCY6TR |
| STM32L412TBY6TR | STM32L4R5ZIY6TR | STM32F733VEY6TR |
| STM32F723VEY6TR | STM32F469AIY6TR | STM32L051T8Y6DTR |
| STM32L552MEY6PTR | STM32F429ZIY6TR | STM32L051T8Y7DTR |
| STM32L152UCY6TR | STM32L4R9ZGY6TR | STM32F410TBY6TR |
| STM32L052T8Y6TR | STM32L476JGY3TR | STM32F412REY6TR |
| STM32L052T8Y7TR | STM32F423MHY3TR | STM32F205REY6TR |
| STM32L051T8Y6TR | STM32WB55VGY6TR | STM32F411CEY3TR |
| STM32F412RGY6PTR | STM32WB55VEY6TR | STM32L433CCY6TR |
| STM32F401CDY6TR | STM32L011E3Y6TR | STM32L476JGY6TR |
| STM32L162VDY6XTR | STM32L082CZY6TR | STM32F411CEY6TR |
| STM32L552MEY6QTR | STM32L476JGY6PTR | STM32L4A6VGY6TR |
| STM32F410TBY7TR | STM32F415OGY6TR | STM32F423MHY6TR |
| STM32L452REY6TR | STM32L151VDY6XTR | STM32L476MGY6TR |
| STM32L151UCY6TR | STM32L433RCY6TR | STM32L476JEY6TR |
| STM32L031E4Y6TR | STM32G071EBY6TR | STM32L072CZY6DTR |
| STM32F746ZGY6TR | STM32L052T6Y6TR | STM32F413MGY6TR |
| STM32F410T8Y6TR | STM32L476JGY7TR | STM32F746ZEY6TR |
| STM32F479AIY6TR | STM32L152VEY6TR | STM32L151UCY7TR |
| STM32L431CBY6TR | STM32L443CCY6TR | STM32L486JGY6TR |
| STM32L072CBY6TR | STM32L041E6Y6TR | STM32L431CBY7TR |
| STM32L433CCY3TR | STM32L4R9ZIY6PTR | STM32L4A6VGY6PTR |
| STM32L496VGY6TR | STM32L562MEY6QTR | STM32L4S5ZIY6TR |
| STM32F779AIY6TR | STM32L443RCY6TR | STM32L422TBY6TR |
| STM32L151VEY6TR | STM32L452REY6PTR | STM32L476MEY6TR |
| STM32F401CCY6TT | STM32L071CZY6TR | STM32L4R9ZIY6TR |
| STM32L071CBY6TR | STM32F756ZGY6TR | STM32F411CCY6TR |
| STM32L433CBY6TR | STM32L082CZY3TR | STM32F769AIY6TR |
| STM32L431RBY6TR | STM32L562MEY6PTR | STM32F410TBY3TR |
| STM32F205RGY6TR | STM32L496VGY6PTR | STM32L462REY6TR |
| STM32L412TBY6PTR | STM32F429ZIY6JTR | STM32L4S9ZIY6TR |
| STM32L011E4Y6TR | STM32L431RCY6TR | STM32L162VEY6TR |
| STM32L431CCY6TR | STM32L031E6Y6TR | STM32WB55VCY6TR |



Public Products List

| STM32F446MEY6TR | STM32L4R5ZGY6TR | STM32L451REY6TR |
|------------------|------------------|------------------|
| STM32F469AGY6TR | STM32F778AIY6TR | STM32WB55VGY7TR |
| STM32L433RCY3TR | STM32L433RBY6TR | STM32F405OGY6VTR |
| STM32F405OGY6WTR | STM32L476JGY6VTR | STM32L476JEY6VTR |

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