



# Final Product/Process Change Notification

Document #:FPCN22735X1

Issue Date:15 Feb 2022

|                                                  |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title of Change:</b>                          | Update to FPCN22735X -MiniGates Fab, Assembly Material and Test Change (SC88A/SOT953/SOT553) with datasheet update, push out implementation date.                                                                                                                                                                                                                |
| <b>Proposed First Ship date:</b>                 | 10 May 2022 or earlier if approved by customer                                                                                                                                                                                                                                                                                                                   |
| <b>Contact Information:</b>                      | Contact your local onsemi Sales Office or <a href="mailto:logic.fpcn@onsemi.com">logic.fpcn@onsemi.com</a>                                                                                                                                                                                                                                                       |
| <b>PCN Samples Contact:</b>                      | Contact your local onsemi Sales Office.<br>Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.<br>Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.                                                |
| <b>Additional Reliability Data:</b>              | Contact your local onsemi Sales Office or <a href="mailto:Joe.Chapple@onsemi.com">Joe.Chapple@onsemi.com</a>                                                                                                                                                                                                                                                     |
| <b>Type of Notification:</b>                     | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.<br>onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> |
| <b>Marking of Parts/ Traceability of Change:</b> | For NC7 parts, marking style will be different. For NL17 and SL17 part, the CS code on the reel label will be changed from US to JP.                                                                                                                                                                                                                             |
| <b>Change Category:</b>                          | Test Change, Assembly Change, Wafer Fab Change                                                                                                                                                                                                                                                                                                                   |
| <b>Change Sub-Category(s):</b>                   | Manufacturing Site Addition, Shipping/Packaging/Marking, Datasheet/Product Doc change, Material Change, Manufacturing Process Change                                                                                                                                                                                                                             |

## Sites Affected:

| onsemi Sites                        | External Foundry/Subcon Sites           |
|-------------------------------------|-----------------------------------------|
| Leshan Phoenix Semiconductor, China | HANA Microelectronics, China            |
| onsemi Cebu, Philippines            | Tower Semiconductor, Israel             |
| onsemi Maine, United States         | Towerjazz Semiconductor, Japan (Toyama) |
| onsemi Seremban, Malaysia           |                                         |

## Description and Purpose:

This updated FPCN22735X1 is released to inform customers that we are pushing out the implementation of FPCN22735X due to wafer fab constraint Towerjazz Semiconductor TPSCo. All the affected parts will continue be supplied using the existing qualified sites and BOM.

## Reliability Data Summary:

QV DEVICE NAME : NC7SP125P5X

RMS : 51765

PACKAGE : SC88A

| Test  | Specification       | Condition                           | Interval | Results |
|-------|---------------------|-------------------------------------|----------|---------|
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260 °C                      |          | 0/804   |
| HTSL  | JESD22-A103         | Ta=150°C                            | 2016 hrs | 0/234   |
| TC    | JESD22-A104         | Ta= -65°C to +150°C                 | 500 cyc  | 0/297   |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias       | 192 hrs  | 0/273   |
| UHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased   | 96 hrs   | 0/234   |
| HTOL  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 1008 hrs | 0/252   |
| ELFR  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 48 hrs   | 0/2400  |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                   |          | 0/90    |



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QV DEVICE NAME: NL17SG14P5T5G

RMS : 56472

PACKAGE : SOT953

| Test  | Specification       | Condition                           | Interval | Results |
|-------|---------------------|-------------------------------------|----------|---------|
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260 °C                      |          | 0/720   |
| HTSL  | JESD22-A103         | Ta=150°C                            | 2016 hrs | 0/249   |
| TC    | JESD22-A104         | Ta= -65°C to +150°C                 | 500 cyc  | 0/234   |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias       | 192 hrs  | 0/252   |
| uHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased   | 96 hrs   | 0/234   |
| HTOL  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 1008 hrs | 0/252   |
| ELFR  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 48 hrs   | 0/2400  |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                   |          | 0/90    |

QV DEVICE Name : NL17SV16XV5T2G

RMS : 51763

PACKAGE : SOT553

| Test  | Specification       | Condition                           | Interval | Results |
|-------|---------------------|-------------------------------------|----------|---------|
| PC    | J-STD-020 JESD-A113 | MSL 1 @ 260 °C                      |          | 0/753   |
| HTSL  | JESD22-A103         | Ta=150°C                            | 2016 hrs | 0/252   |
| TC    | JESD22-A104         | Ta= -65°C to +150°C                 | 500 cyc  | 0/252   |
| HAST  | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias       | 192 hrs  | 0/249   |
| UHAST | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased   | 96 hrs   | 0/252   |
| HTOL  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 2016 hrs | 0/252   |
| ELFR  | JESD22-A108         | Ta=125°C, 100 % max rated Vcc x 1.2 | 48 hrs   | 0/2400  |
| RSH   | JESD22- B106        | Ta = 265C, 10 sec                   |          | 0/90    |

### Electrical Characteristics Summary:

Electrical characteristics available upon request.

### List of Affected Parts:

**Note:** Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

| Part Number    | Qualification Vehicle |
|----------------|-----------------------|
| NL17SG00DFT2G  | NC7SP125P5X           |
| NL17SG00P5T5G  | NL17SG14P5T5G         |
| NL17SV00XV5T2G | NL17SV16XV5T2G        |
| NL17SG02DFT2G  | NC7SP125P5X           |
| NL17SG02P5T5G  | NL17SG14P5T5G         |
| NL17SV02XV5T2G | NL17SV16XV5T2G        |
| SL17SG02P5T5G  | NL17SG14P5T5G         |
| NL17SG04DFT2G  | NC7SP125P5X           |
| NL17SG04P5T5G  | NL17SG14P5T5G         |



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|                |                |
|----------------|----------------|
| NL17SV04XV5T2G | NL17SV16XV5T2G |
| NL17SG07DFT2G  | NC7SP125P5X    |
| NL17SG07P5T5G  | NL17SG14P5T5G  |
| NL17SG08DFT2G  | NC7SP125P5X    |
| NL17SG08P5T5G  | NL17SG14P5T5G  |
| NL17SV08XV5T2G | NL17SV16XV5T2G |
| NL17SG14DFT2G  | NC7SP125P5X    |
| NL17SG14P5T5G  | NL17SG14P5T5G  |
| NL17SV16XV5T2G | NL17SV16XV5T2G |
| NL17SG17DFT2G  | NC7SP125P5X    |
| NL17SG17P5T5G  | NL17SG14P5T5G  |
| NL17SG32DFT2G  | NC7SP125P5X    |
| NL17SG32P5T5G  | NL17SG14P5T5G  |
| NL17SV32XV5T2G | NL17SV16XV5T2G |
| NL17SG34DFT2G  | NC7SP125P5X    |
| NL17SG34P5T5G  | NL17SG14P5T5G  |
| NL17SG86DFT2G  | NC7SP125P5X    |
| NL17SG86P5T5G  | NL17SG14P5T5G  |
| NL17SG125DFT2G | NC7SP125P5X    |
| NL17SG125P5T5G | NL17SG14P5T5G  |
| NL17SG126DFT2G | NC7SP125P5X    |
| NL17SG126P5T5G | NL17SG14P5T5G  |
| NL17SG126P5T6G | NL17SG14P5T5G  |
| NL17SGU04P5T5G | NL17SG14P5T5G  |
| NC7SV32P5X     | NC7SP125P5X    |
| NC7SP05P5X     | NC7SP125P5X    |
| NC7SV126P5X    | NC7SP125P5X    |
| NC7SP14P5X     | NC7SP125P5X    |
| NC7SV17P5X     | NC7SP125P5X    |
| NC7SV08P5X     | NC7SP125P5X    |
| NC7SV00P5X     | NC7SP125P5X    |
| NC7SV05P5X     | NC7SP125P5X    |
| NC7SP86P5X     | NC7SP125P5X    |
| NC7SV34P5X     | NC7SP125P5X    |



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|                |             |
|----------------|-------------|
| NC7SP17P5X     | NC7SP125P5X |
| NC7SP125P5X    | NC7SP125P5X |
| NC7SP00P5X     | NC7SP125P5X |
| NC7SV04P5X     | NC7SP125P5X |
| NC7SPU04P5X    | NC7SP125P5X |
| NC7SP08P5X     | NC7SP125P5X |
| NC7SP04P5X     | NC7SP125P5X |
| NC7SP02P5X     | NC7SP125P5X |
| NC7SV86P5X     | NC7SP125P5X |
| NC7SP32P5X     | NC7SP125P5X |
| NC7SVU04P5X    | NC7SP125P5X |
| NC7SV02P5X     | NC7SP125P5X |
| NC7SP34P5X     | NC7SP125P5X |
| NC7SP126P5X    | NC7SP125P5X |
| NC7SV14P5X     | NC7SP125P5X |
| NC7SV125P5X    | NC7SP125P5X |
| NC7SP38P5X     | NC7SP125P5X |
| NL17SGU04DFT2G | NC7SP125P5X |