

Initial Product/Process Change Notification Document #: IPCN25156X Issue Date: 14 Dec 2022

| Title of Change: | WDFN6 Assembly Transfer from UTAC to Seremban Malaysia Site 1. | | | |
|--|--|---------------------------|---|--|
| Proposed First Ship date: | 30 Aug 2023 or earlier if approved by customer | | | |
| Contact Information: | Contact your local onsemi Sales Office or <u>BernardRajVellangani.Pelevindran@onsemi.com</u> | | | |
| PCN Samples Contact: | Contact your local onsemi Sales Office. 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. Samples delivery timing will be subject to request date, sample quantity and special custome packing/label requirements. | | | |
| Type of Notification: | This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is a advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plate the completed qualification and characterization data will be included in the Fire Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Fire Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < <u>PCN.Support@onsemi.com</u> > | | | |
| Marking of Parts/ Traceability of Change: | Changed material may be identified by lot code or date code | | | |
| Change Category: | Assembly Change | | | |
| Change Sub-Category(s): | Manufacturing Site Transfer | | | |
| Sites Affected: | | | | |
| onsemi Sites | | External Foundry/Subcon S | ry/Subcon Sites | |
| onsemi Seremban, Malaysia | | | | |
| Description and Purpose: | | | | |
| | From | | То | |
| Assembly Site | UTAC, Thailand | | onsemi Seremban, Malaysia (SBN Site 1) | |
| LeadFrame | SFS Wettable Flank | | Step Cut Wettable Flank | |
| Die Attach | ABLETHERM 8600 CONDUCTIVE (NSS60100DMTTBG, NSS60101DMTTBG, NSS60200DMTTBG, NSS60200SMTTBG, NSS60201SMTTBG). EPOXY ABLESTICK 8200T (NSS20200DMTTBG, NSS20201DMTTBG) | | CRM1084P (All Device) | |
| Bond Wire | 1.3mil Gold Wire | | 1.3mil Palladium Coated Copper Wire | |
| Mold Compound | Sumitomo G770HCD (NSS60100DMTTBG, NSS60101DMTTBG, NSS60200DMTTBG, NSS60200SMTTBG, NSS60201SMTTBG). MC G700LTD (NSS20200DMTTBG, NSS20201DMTTBG) | | MC EME-G720D Type (All Device) | |



Qualification Plan:

QV DEVICE NAME: NSV60101DMTWTBG & NSV60200DMTWTBG RMS: S86916(NSV60101DMTWTBG) & S74843, S73609(NSV60200DMTWTBG) PACKAGE: WDFN6 2.0mmx2.0mmx0.75mm

| Test | Specification | Condition | Interval |
|------------|--------------------------------|---|----------|
| HTRB | JESD22-A108 | Tj = Max rate Tj for device, bias = 100% of rated V for Q 101 Rev D | 2016 hrs |
| HTSL | JESD22-A103 | Ta =Max rate storage temp for device 2016 | |
| ELFR | AECQ100-008 | may utilize either HTGB or HTRB conditions 48 h | |
| PC | J-STD-020 JESD-A113 | IR reflow at 260C | |
| HAST + PC | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias 80% of rated V or 100V max | 192 hrs |
| H3TRB + PC | JESD22-A101 | Temp = +85°C; RH = 85%, 80% rated Volt | 2016 hrs |
| TC + PC | JESD22-A104 | Temp = -55°C to +150°C 2 | |
| UHAST + PC | JESD22-A118 | Temp = 130C, RH=85%, ~ 18.8 psig | 96 hrs |
| IOL+PC | MIL STD750, M 1037 AEC Q101 | Ta=+25°C, deltaTj=100°C max, xxx min Ton=Toff (pkg dependent) | 2x cycle |
| RSH | JESD22- B106 | Ta=268°C 10 sec dwell | |
| SD | JSTD002 | Ta = 245°C, 5 sec | |
| Shift | AEC-Q101, MSB17722C | Post 1X HTRB, HTGB, HTSL, TC, HAST/H3TRB, IOL, AC/uHAST | |

Estimated date for qualification completion: 10 April 2023

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 <u>PCN Customized Portal</u>.

| Part Number | Qualification Vehicle |
|----------------|-----------------------|
| NSS60201SMTTBG | NSV60101DMTWTBG |
| NSS60200SMTTBG | NSV60200DMTWTBG |
| NSS60200DMTTBG | NSV60200DMTWTBG |
| NSS60101DMTTBG | NSV60101DMTWTBG |
| NSS60100DMTTBG | NSV60200DMTWTBG |
| NSS20201DMTTBG | NSV60101DMTWTBG |
| NSS20200DMTTBG | NSV60200DMTWTBG |