



# Initial Product/Process Change Notification

Document #: IPCN25369Z

Issue Date: 19 May 2023

<b>Title of Change:</b>	Wafer Fabrication transfer from onsemi Bucheon, Korea to onsemi Aizu, Japan for HDG family of gate drivers. Wafer Probe location change from Bucheon, Korea to Greatek Electronics Inc (GTK)
<b>Proposed Changed Material First Ship Date:</b>	05 May 2024 or earlier if approved by customer
<b>Current Material Last Order Date:</b>	N/A <i>Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.</i>
<b>Current Material Last Delivery Date:</b>	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>
<b>Product Category:</b>	Active components – Integrated circuits
<b>Contact information:</b>	Contact your local onsemi Sales Office or <a href="mailto:John.Butchko@onsemi.com">John.Butchko@onsemi.com</a>
<b>PCN Samples Contact:</b>	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. 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:Youngchul.Lee@onsemi.com">Youngchul.Lee@onsemi.com</a>
<b>Type of Notification:</b>	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 6 months prior to implementation of the change. In case of questions, contact <a href="mailto:PCN.Support@onsemi.com">&lt;PCN.Support@onsemi.com&gt;</a> .

## Change Category

Category	Type of Change
Process - Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor, New wafer diameter

## Description and Purpose:

onsemi will transfer its 6" wafer fabrication site from Bucheon, Korea to 8" wafer Fabration site in Aizu, Japan. onsemi will also transfer its wafer probe test site from Bucheon, Korea to Greatek Electronic Inc, Taiwan. These transfers affect the HDG product portfolio of gate drivers. onsemi wishes to promptly inform our customer of our intent to transfer this portion of our portfolio so that you may plan appropriately and effectively for this change.

	From	To
<b>Fab Site</b>	onsemi, Korea (Bucheon)	onsemi, Japan (Aizu)
<b>Wafer size</b>	150 mm	200 mm
<b>Wafer Probe</b>	onsemi, Korea (Bucheon)	Greatek Electronics Inc (GTK)

There is no product marking change as a result of this change.



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<b>Reason / Motivation for Change:</b>	Source/Supply/Capacity Changes Process/Materials Change		
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability:</b>	The device will be qualified and validated based on the same Product Specification. No anticipated impacts.		
<b>Sites Affected:</b>			
<b>onsemi Sites</b>		<b>External Foundry/Subcon Sites</b>	
onsemi Aizu, Japan		Greatek Electronics Inc., Taiwan	
<b>Marking of Parts/ Traceability of Change:</b>	Part marking shows assembly site and assembly date, only. Assembly lot (marked on reel and shipping boxes) is traceable to source wafer fab.		

## Reliability Data Summary:

Assembly Site Change: **Bucheon to Aizu**  
 QV DEVICE NAME: **FAD8253MX-1**  
 RMS: **89458**  
 PACKAGE: **SOIC-14**

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta= 125°C, Biased	1008hrs
High Temperature Reverse Bias	JESD22-A108	Tj= 150°C, Biased	1008hrs
Early Life Failure Rate	AEC-Q100-008	Ta= 125°C, Biased	48hrs
Preconditioning	J-STD-020, JESD-A113	MSL 1 @ 260°C	
Temperature Humidity Bias	JESD22-A101	Ta= 85°C, RH= 85%, Biased	1008hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000cyc
Unbiased Highly Accelerated Stress Test	JESD22-A118	Ta= 130°C, RH= 85%, p= ~18.8psig	96hrs

Assembly Site Change: **Bucheon to Aizu**  
 QV DEVICE NAME: **FAD6263M1X**  
 RMS: **89459**  
 PACKAGE: **SOIC-16**

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta= 140°C, Biased	1008hrs
High Temperature Reverse Bias	JESD22-A108	Ta= 150°C, Biased	1008hrs
Early Life Failure Rate	AEC-Q100-008	Ta= 125°C, Biased	48hrs
Preconditioning	J-STD-020, JESD-A113	MSL 1 @ 260°C	
Temperature Humidity Bias	JESD22-A101	Ta= 85°C, RH= 85%, Biased	1008hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000cyc
Unbiased Highly Accelerated Stress Test	JESD22-A118	Ta= 130°C, RH= 85%, p= ~18.8psig	96hrs



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Assembly Site Change: **Bucheon to Aizu**

QV DEVICE NAME: **FAN7191MX-F085**

RMS: **89457**

PACKAGE: **SOIC-8**

Test	Specification	Condition	Interval
High Temperature Operating Life	JESD22-A108	Ta= 125°C, Biased	1008hrs
High Temperature Reverse Bias	JESD22-A108	Ta= 125°C, Biased	1008hrs
Early Life Failure Rate	AEC-Q100-008	Ta= 125°C, Biased	48hrs
Preconditioning	J-STD-020, JESD-A113	MSL 2 @ 260°C	
Temperature Humidity Bias	JESD22-A101	Ta= 85°C, RH= 85%, Biased	1008hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000cyc
Unbiased Highly Accelerated Stress Test	JESD22-A118	Ta= 110°C, RH= 85%, p= ~18.8psig	264hrs

Estimated date for Qual Completion : 11 Dec 2023

### Electrical Characteristics Summary:

Electrical characteristics are not impacted.

### 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](#).

Current Part Number	New Part Number	Qualification Vehicle
FAD6263M1X	NA	FAD6263M1X
FAD7191M1X	NA	FAD6263M1X
FAD8253MX	FAD8253MX-1	FAD8253MX-1
FAN7080MX-GF085	NA	FAN7191MX-F085
FAN7081MX-GF085	NA	FAN7191MX-F085
FAD8253MX-1	NA	FAD8253MX-1
FAD7171MX	NA	FAD6263M1X
FAN7191MX-F085	NA	FAN7191MX-F085
FAN7171MX-F085	NA	FAN7191MX-F085
FAN7085MX-GF085	NA	FAN7191MX-F085
FAN7083MX-GF085	NA	FAN7191MX-F085