ON Semiconductor®



Final Product/Process Change Notification Document #: FPCN22224X

Issue Date: 25 April 2018

Title of Change:	Change from Gold Bump & Palladium Coated Copper Wire bonding (2 -Pass) to Palladium Coated Copper (PCC) Bump & Wire bonding (1-Pass) in SPS_55 Package.			
Proposed first ship date:	1 August 2018			
Contact information:	Contact your local ON Semiconductor Sales Office or < <u>Sheila.oyao@onsemi.com</u> >.			
Samples:	Sheila.Oyao@onsemi.com			
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or < <u>KarenMae.Taping@onsemi.com</u> >.			
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <pcn.support@onsemi.com>.</pcn.support@onsemi.com>			
Change Part Identification:	Affected products will be identified with a date code cut-off.			
Change category:	🗌 Wafer Fab Change 🛛 Assembly Change 🔲 Test Change 🔲 Other			
Change Sub-Category(s): Manufacturing Site Change, Manufacturing Process Cha				
Sites Affected:	ON Semiconductor Sites:External Foundry/Subcon Sites:OSPI-CebuNone			
Description and Purpose: Change from Gold Bump & Palladium Coated Copper Wire bonding (2-Pass) to Palladium Coated Copper (PCC) Bump & Wire bonding (1-Pass) in SPS_55 Package. This is to standardize process (1-pass) across all SPS and PQFN packages.				
Material to be chan	ged Before Change Description After Change Description			
Bonding Wire mate	rial Bump on FET Die : 1 mil Au wire Wire bond on FET Die to IC Die : 1 mil PCC (Palladium Coated Copper) wire Bump on FET Die : 1 mil PCC wire Wire bond on FET Die to IC Die : 1 mil PCC (Palladium Coated Copper) wire			



Reliability Data Summary:

-	E NAME: <u>FDMF5822DC</u> N NO.: <u>Q20160052A</u> <u>SPS55</u>			
Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta=150°C	1000 hrs	0/77
тс	JESD22-A104	Ta=-65°C to +150°C	1000 <u>cyc</u>	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/77
PC	J-STD-020 JESD-A113	MSL1@ 260°C	-	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec		0/5

QV DEVICE NAME: <u>FDMF5822DC</u> QUAL PLAN NO.: <u>Q20160613A</u> PACKAGE: <u>SP555</u>

Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/77
PC	J-STD-020 JESD-A113	MSL1@ 260°C	-	0/77

-	E NAME: <u>FDMF6821B</u> AN NO.: <u>Q20160052A</u> : <u>PQFN66</u>			
Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta= 150°C	1000 hrs	0/77
TC	JESD22-A104	Ta=-65°Cto+150°C	1000 <u>cyc</u>	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/77
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	-	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/5

QUAL PLA	E NAME: <u>FDPC8016S</u> NN NO.: <u>Q20160052A</u> :: PQFN56C			
Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta = 150°C	1000 hrs	0/77
тс	JESD22-A104	Ta = -65°C to +150°C	1000 <u>çyç</u>	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/77
PC	J-STD-020 JESD-A113	MSL1@260°C	-	0/308
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/5

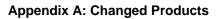


Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
FDMF5820DC	FDMF5822DC
FDMF5820TDC	FDMF5822DC
FDMF5821	FDMF5822DC
FDMF5821DC	FDMF5822DC
FDMF5822DC	FDMF5822DC
FDMF5823DC	FDMF5822DC
FDMF5826DC	FDMF5822DC
FDMF5833	FDMF5822DC
FDMF5839	FDMF5822DC



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Product	Customer Part Number	Qualification Vehicle	
FDMF5820DC		FDMF5822DC	
FDMF5820TDC		FDMF5822DC	
FDMF5821		FDMF5822DC	
FDMF5821DC		FDMF5822DC	
FDMF5822DC		FDMF5822DC	
FDMF5823DC		FDMF5822DC	
FDMF5826DC		FDMF5822DC	
FDMF5833		FDMF5822DC	
FDMF5839		FDMF5822DC	