

Final Product/Process Change Notification Document #: FPCN22488X

Issue Date: 21 November 2018

Announcement of several changes to the CPH3205-TLE and CPH3205-MTLE product. Addition of passivation with changes to the pad design and top metal. Qualification of copper wire with changes to the lead frame and mold compound. Proposed first ship date: 28 February 2019							
Contact information: Contact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Sales Office or Nontact your local ON Semiconductor Will be identified with date code. Change Part Identification: Affected products will be identified with date code. Change Sub-Category(s): Wafer Fab Change Wafer Fab Change Vasembly Change Test Change Other Wafer Fab Change Shipping/Packaging/Marking Product specific change Shipping/Packaging/Marking Product specific change Shipping/Packaging/Marking Other: Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description After Change Description To change the position of bonding pads To add separated probe pads To add separate	Title of	Change:	with changes to the pad design and top metal. Qualification of copper wire with changes to the lead frame and				
Samples: Contact your local ON Semiconductor Sales Office or PCN samples@onsemi.com 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. Additional Reliability Data: Contact your local ON Semiconductor Sales Office or Yasuhiro Jagarashi@onsemi.com 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 Change Part Identification: Affected products will be identified with date code. Change Sub-Category(s): Manufacturing Site Addition Manufacturing Site Transfer Manufacturing Site Transfer Manufacturing Process Change ON Semiconductor sites: ON Semiconductor sites: ON Shemahen, China ON Nigata, Japan Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description Pattern layout Existing pad design To change the position of bonding pads To add separated probe pads To pmetal 3.2um 5.5um Passivation None SiN+ Polyimide Wire Gold Copper Mold compound Halide Halide Free Lead frame Wide post Narrow post	Propos	ed first ship date:	28 February 2019				
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. Additional Reliability Data: 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> Change Part Identification: Affected products will be identified with date code. Change Category: Wafer Fab Change Assembly Change Test Change Other Change Sub-Category(s): Manufacturing Site Addition Material Change Shipping/Packaging/Marking Manufacturing Site Transfer Product specific change Shipping/Packaging/Marking Manufacturing Process Change Other: Sites Affected: ON Semiconductor Sites: ON Shenzhen, China ON Niigata, Japan Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description After Change Description To change the position of bonding pads To add separated probe pads To pmetal 3.2 um 5.5 um Pastern layout Existing pad design To change the position of bonding pads To pmetal 3.2 um 5.5 um Pastern layout Existing pad design To change the position of bonding pads To pmetal 3.2 um 5.5 um Pastern layout Alide Alide Free Large flag Small flag Mold compound Halide Halide Pree Lead frame None Narrow post	Contac	t information:	Contact your local ON Semiconductor Sale	es Office or < <u>Daichi.Suma@onsemi.com</u> >			
This is a Final Product/Process Change Notification (FPCN) sentocustomers. 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 pccNs.upport@onsemi.com Change Part Identification: Affected products will be identified with date code. Change Category: Wafer Fab Change Assembly Change Test Change Other Change Sub-Category(s): Manufacturing Site Addition Manufacturing Site Addition Manufacturing Process Change ON Semiconductor Sites: ON Semiconductor Sites: ON Shenzhen, China ON Niigata, Japan Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description After Change Description Pattern layout Existing pad design To change the position of bonding pads Top metal 3.2um 5.5um Passivation None SiNt-Polyimide Wire Gold Copper Mold compound Halide Halide Free Mold compound Halide Halide Free Lead frame Wide post Narrow post	Sample	25:	Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final				
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> Change Part Identification: Affected products will be identified with date code. Change Category: Wafer Fab Change Assembly Change Test Change Other Change Sub-Category(s): Manufacturing Site Addition Product specific change Shipping/Packaging/Marking Other: Manufacturing Process Change Other: Sites Affected: ON Semiconductor Sites: ON Shenzhen, China ON Niigata, Japan Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description After Change Description	Additio	onal Reliability Data:	Contact your local ON Semiconductor Sale	es Office or < <u>Yasuhiro.lgarashi@onsemi.com</u> >			
Change Category: Wafer Fab Change Assembly Change Test Change Other	Type of	fnotification:	implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of				
Change Sub-Category(s): Manufacturing Site Addition Product specific change Shipping/Packaging/Marking Other: Manufacturing Process Change Other: ON Semiconductor Sites: On Shenzhen, China On Niigata, Japan None Description and Purpose: External Foundry/Subcon Sites: None Description and Purpose: Description Descrip	Change	Part Identification:	Affected products will be identified with o	ate code.			
Manufacturing Site Addition ✓ Material Change □ Datasheet/Product Doc change Manufacturing Site Transfer □ Product specific change □ Shipping/Packaging/Marking ✓ Manufacturing Process Change □ Other: Sites Affected: ON Semiconductor Sites: ON Shenzhen, China ON Niigata, Japan □ External Foundry/Subcon Sites: None None Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description After Change Description To change the position of bonding pads To add separated probe pads To add separated probe pads To pmetal 3.2um 5.5um Passivation None SiN+ Polyimide Wire Gold Copper Mold compound Halide Halide Free Large flag Small flag Lead frame Wide post Narrow post From To	Change	ange Category: ✓ Wafer Fab Change ✓ Assembly Change ☐ Test Change ☐ Other					
Sites Affected: ON Shenzhen, China ON Niigata, Japan Description and Purpose: This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description		■ Manufacturing Site Addition ■ Material Change ■ Datasheet/Product Doc change ■ Manufacturing Site Transfer ■ Product specific change ■ Shipping/Packaging/Marking					
This Final notification announces the Addition of passivation and qualification of wire from gold to copper, lead frame, and mold compound for CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description	Sites Affected:		ON Shenzhen, China				
CPH3205-TL-E product. This change is for stable supply and quality improvement. Before Change Description	Descrip	otion and Purpose:		·			
Pattern layout Existing pad design To change the position of bonding pads To add separated probe pads To add separ	CPH3205-TL-E product.						
Pattern layout Existing pad design To change the position of bonding pads To add separated probe pads To add separ			Before Change Description	After Change Description			
Passivation None SiN+ Polyimide Wire Gold Copper Mold compound Halide Halide Free Lead frame Large flag Small flag Narrow post From To		Pattern layout		To change the position of bonding pads			
Wire Gold Copper Mold compound Halide Halide Free Lead frame Large flag Small flag Narrow post From To		Top metal	3.2um	5.5um			
Mold compound Halide Halide Free Lead frame Large flag Small flag Narrow post From To		Passivation	None	SiN+ Polyimide			
Lead frame Large flag Wide post Narrow post From To		Wire	Gold	···			
Lead frame Wide post Narrow post From To		Mold compound	Halide	Halide Free			
		Lead frame		<u> </u>			
Product marking change CE No change			From	То			
		Product marking ch	ange CE	No change			

TEM001793 Rev. A Page 1 of 2



Final Product/Process Change Notification Document #: FPCN22488X

Issue Date: 21 November 2018

Reliability Data Summary:

QV DEVICE NAME: CPH3205-TL-E

PACKAGE: CPH3

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C,100% max rated V	1008 hrs	0/252
HTSL	JESD22-A103	Ta= 175 C	2016 hrs	0/258
MIL-STD-750 IOL (M1037) AEC-Q101		Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	0/251
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/293
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	2016 hrs	0/260
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		
RSH	JESD22- B106	Ta = 260C, 10 sec		0/90

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Parts:

Part Number	Qualification Vehicle	
CPH3205-TL-E	CPH3205-TL-E	
CPH3205-M-TL-E	CPH3205-TL-E	

TEM001793 Rev. A Page 2 of 2



Appendix A: Changed Products

Dec duct	Constant of Deat Name of	Ovelffeetien Vehicle
Product	Customer Part Number	Qualification Vehicle
CPH3205-M-TL-E		NA
CPH3205-TL-E		NA