IPC ASSOCIATION CONNECTION ELECTRONICS INDUSTRIE	© Copyright 2005. IPC,	erial Composition Declaration pyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both ational and Pan-American copyright conventions.			Thi leve	This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with low level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.									
752-21.1	IPC Web Site for Information on IPC-1752 Standard  Form Type http://www.ipc.org/IPC-175x  Form Type Distribute				Form Type * Distribute		Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materi					als and Mfg Information			
upplier Inforn	nation														
Company name*			Company unique ID			J	Unique ID Authority				Response Date*				
nsemi										2024-05-04					
ontact Name		Title - Contact			I	Phone - Contact*				Email - Contact*					
Product-Env-Stew	ards		Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com				
uthorized Repres	entative*	Title - Representative			I	Phone - Representative*				Email - Representative*					
Product-Env-Stewards			Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com				
Request	Requester Item Number Mfr Item		n Number Mfr Item Name				Effective Da	te Vers	sion	Manufacturing Site		Weight*	UOM	Unit Type	
		pre-driv			PH PRE SENSOR CLOSE; Single phase ore-driver with hall sensor method (closed oop speed control)		2024-05-04		РНМ			80.0	mg	Each	
<b>Ianufacturing</b>	Process Information	n													
Terminal Plating / Grid Array Material T		Cerminal Base Alloy J-ST		STD-020 MSL Ra	ating	Peak Process Body		dy Temperat	Temperature Max Time at Peak		ture Numbe	er of Reflow Cyc	cles		
contains Bi		CU Alloy 3			260 C 30		seconds 3								
omments															
TTENTION: MS	L 3 Rated item requires B	ake and D	ry Pack (after	electrical test)											
or more informati	ion regarding material con	nposition	please refer to	page 3											

RoHS Material Composition Declaration			Declaration Type *	Detail	led						
Directive 2015/863/EU amending RoHS Directive 2011/65/EU  RoHS Definition: Quantity limit of 0.01% by mass (100 PPM) in homogeneous material for Cadmium and quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Bis(2-ethylhexyl) phthalate (DEHP), Benzyl-butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP).											
Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part identified on this form contains lead, mercury, cadmium, hexavalentchromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a "RoHS restricted substance") in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance inexcess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its provided certifications regarding their contributions to the part, and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier have provided as part of that agreement, will be the sole and exclusivesource of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard Terms and Conditions of Sale applicable to such											
RoHS Declaration * 1 - Item	(s) does not contain RoHS restricted substa	ances per the definition above	Supplier Ac	cceptance *	Accepted						
Exemption: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.											
Exemption List Version	EL-2011/534/EU										
Declaration Signature											
Instructional Complete all of the required	fields on all neggs of this form. Calcut th		a duan dawn. This will display the signature on	a Digitally sign	the declaration (if recurined by the						
Instructions: Complete all of the required Requester) and click on Submit Form to			e drop-down. This will display the signature ar	ea. Digitally sign	the declaration (if required by the						

## **Homogeneous Material Composition Declaration for Electronic Products**

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Homogeneous Material	Weight	Unit of Measure	Level	Substance	CAS	Exempt	Weight	Unit of Measure
Die	3.9	mg	Supplier	Silicon (Si)	7440-21-3		3.8856	mg
			Supplier	Polyimide	Proprietary Data		0.0144	mg
Die Attach	0.38	mg	Supplier	Silver (Ag)	7440-22-4		0.2907	mg
			Supplier	Epoxy resins	129915-35-1		0.0893	mg
Lead Frame	25.4	mg	Supplier	Silver (Ag)	7440-22-4		0.6325	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0483	mg
			Supplier	Iron (Fe)	7439-89-6		0.6426	mg
			Supplier	Copper (Cu)	7440-50-8		24.0411	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0356	mg
Mold Compound-Black	48.74	mg		Epoxy Phenol Resin	proprietary data		5.8488	mg
			Supplier	Carbon Black (C)	1333-86-4		0.195	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		41.234	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		1.4622	mg
Plating	1.42	mg	В	Bismuth (Bi)	7440-69-9		0.0085	mg
			Supplier	Tin (Sn)	7440-31-5		1.4115	mg
Wire Bond - Au	0.16	mg	Supplier	Gold (Au)	7440-57-5		0.16	mg