IPC ASSOCIATION CONNECTION ELECTRONICS INDUSTRI	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.				der both le	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 Mater					als and Mfg Information			
upplier Inform	nation														
ompany name*		Company unique ID			1	Unique ID Authority					Response Date*				
nsemi												2024-04-24			
Contact Name		Title - Contact			1	Phone - Contact*					Email - Contact*				
Product-Env-Stew	ards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com					
uthorized Repres	entative*	Title - Representative]	Phone - Representative*				Email - Representative*					
Product-Env-Stewards			Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com				
Request	ter Item Number	Mfr Item	m Number Mfr Item Name		PH DRV SENSOR OPEN; Three phase river with hall sensor method (open loop		Effective Da	ite Ver	rsion	Manufacturing Site		V	Veight*	UOM	Unit Type
		driver w					2024-04-24			3	50.0	mg	Each		
I anufacturing	Proccess Informatio	n													
Terminal Plating / Grid Array Material To			Cerminal Base Alloy J-STD-020		STD-020 MSL I	Rating	Peak Process Body Temperature Max 7		ure Max Time	e at Peak	ak Temperature Number of Reflow Cycles		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 (afte	r electrical test)											
or more informat	ion regarding material co	nposition	please refer to	page 3											

RoHS Material Composition Declaration			Declaration Type *	Detail	ed						
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 knowledges 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 paragraph. If the Company and the Supplier have 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 enter into a written agreement with respect to the identified part, the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusivesource of the Supplier's Standard Terms and Conditions of Sale applicable to such part shall apply.											
RoHS Declaration * 1 - Item	(s) does not contain RoHS restricted substar	nces per the definition above	Supplier A	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											
		e "Accepted" on the Supplier Acceptance	drop-down. This will display the signature a	rea. Digitally sign t	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	11.37	mg	Supplier	Silicon (Si)	7440-21-3		11.3279	mg
			Supplier	Polyimide	Proprietary Data		0.0421	mg
Die Attach	0.63	mg	Supplier	Silver (Ag)	7440-22-4		0.5355	mg
			Supplier	Epoxy resins	129915-35-1		0.0851	mg
			Supplier	Polybutadiene polymer	Proprietary Data		0.0094	mg
Lead Frame	123.0	mg	Supplier	Zinc (Zn)	7440-66-6		0.2337	mg
			Supplier	Iron (Fe)	7439-89-6		3.1857	mg
			Supplier	Copper (Cu)	7440-50-8		119.4084	mg
			Supplier	Phosphorus (P)	7723-14-0		0.1722	mg
Mold Compound-Black	210.25			Phenolic Resin	proprietary data		10.5125	mg
			Supplier	Epoxy Phenol Resin	Proprietary Data		5.887	mg
			Supplier	Carbon Black (C)	1333-86-4		2.1025	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		6.3075	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		168.2	mg
			Supplier	Ortho-Cresol Novolac Resin	29690-82-2		16.82	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		0.4205	mg
Plating	3.85	mg	В	Bismuth (Bi)	7440-69-9		0.0231	mg
			Supplier	Tin (Sn)	7440-31-5		3.8269	mg
Wire Bond - Au	0.9	mg	Supplier	Gold (Au)	7440-57-5		0.9	mg