IPC ASSOCIATION CONNECTELECTRONICS INDUSTRI	Material Comp © Copyright 2005. Il international and Par	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.				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 Typ  http://www.ipc.org/IPC-175x  Form Typ  Distribute				Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater					rials and M	ials and Mfg Information				
Supplier Infor	mation															
Company name* Company unique ID				ique ID		Unique ID Authority					Respons	Response Date*				
onsemi													2023-06-08			
Contact Name			Title - Conta	Title - Contact			Phone - Contact*					Email -	Email - Contact*			
Product-Env-Stewards Pr				Product Enviro Compliance			NA NA					Product-Env-Stewards@onsemi.com				
				· · · · · · · · · · · · · · · · · · ·			Phone - Representative*				Email -	Email - Representative*				
Product-Env-Ste	wards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com						
Reque	ster Item Number						Effective Da	ite V	Version Ma		Manufacturing Site		Veight <sup>*</sup>	*	UOM	Unit Type
						2023-06-08 PH4		PH4	H4		191.762 mg		mg	Each		
Manufacturin	g Proccess Informa	tion														
Termin	l Plating / Grid Array Material		Terminal Base Alloy J		J-STD-020 M	D-020 MSL Rating		Peak Process Body Temperatur		ure Max Time at Peak Tempe		k Temperat	ture Number of Reflow Cycles		les	
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)			CU Alloy 2		2		260		С	30 sec		secon	ds 3			
Comments																
ATTENTION: M	SL 2 Rated item require	s Dry Pack (	after electrica	l test)												
For more informa	tion regarding material	composition	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 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 suppliers 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 of 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	2.3	mg	Supplier	Silicon (Si)	7440-21-3		2.3	mg
Die Attach	0.272	mg	Supplier	Silver (Ag)	7440-22-4		0.2013	mg
			Supplier	Phenolic Resin-2	54208-63-8		0.0707	mg
Lead Frame	70.195		Supplier	Silver (Ag)	7440-22-4		0.324	mg
			Supplier	Magnesium (Mg)	7439-95-4		0.105	mg
			Supplier	Silicon (Si)	7440-21-3		0.456	mg
			В	Nickel (Ni)	7440-02-0		2.11	mg
			Supplier	Copper (Cu)	7440-50-8		67.2	mg
Mold Compound-Black	111.1	mg	Supplier	Ortho Cresol Novolac Resin	29690-82-2		11.11	mg
			Supplier	Carbon Black (C)	1333-86-4		1.111	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		98.879	mg
Plating	6.705	mg	Supplier	Palladium (Pd)	7440-05-3		0.188	mg
			В	Nickel (Ni)	7440-02-0		6.39	mg
			Supplier	Gold (Au)	7440-57-5		0.127	mg
Wire Bond - Au	1.19	mg	Supplier	Gold (Au)	7440-57-5		1.19	mg