ASSOCIATION CONNEC	© Copyright 2005.	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 Distribute									s Materia	als and Mf	g Informa	ntion	
Supplier Info	rmation						·								
Company name*			Company unique ID			ī	Unique ID Authority					Response Date*			
nsemi												2024-05-17			
Contact Name			Title - Contact			I	Phone - Contact*					Email - Contact*			
Product-Env-Ste	ewards	Product Enviro Compliance				NA					Product-Env-Stewards@onsemi.com				
uthorized Repr	esentative*	Title - Representative			1	Phone - Representative*					Email - Representative*				
Product-Env-Ste	ewards	Product Enviro Compliance				NA					Product-Env-Stewards@onsemi.com				
Reque	ester Item Number						Effective Dat	e Versio	n l	Manufacturing Site		W	eight*	UOM	Unit Type
							2024-05-17	2024-05-17 THB			1.395 n		mg	Each	
Ianufacturin	ng Proccess Informa	tion						,						·	·
Termir	al Plating / Grid Array Material		Terminal Base Alloy		J-STD-020 M	SL Rating	Peak Process Body Temperatur		e Max Time at Peak Temper		Temperatu	rature Number of Reflow Cycles		eles	
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)		PdAu) (no	CU Alloy 1		1		260		С	30 seco		second	s <b>3</b>		
Comments															
vel 1 - maximur	n time at peak temperat	ure during so	oldering is 10-3	30 seconds											
or more inform	ation 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 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 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	0.111	mg	Supplier	Silicon (Si)	7440-21-3		0.111	mg
Die Attach Tape	0.014	mg	Supplier	Oxirane, (chloromethyl)-, homopolymer 24969-06-0			0.0021	mg
			Supplier	2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate and methyl 2- methyl-2-propenoate	25035-69-2		0.0021	mg
			Supplier	Proprietary	Proprietary Data		0.0014	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.0063	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.0021	mg
Lead Frame	0.402	mg	Supplier	Magnesium (Mg)	7439-95-4		0.0007	mg
			Supplier	Silicon (Si)	7440-21-3		0.0029	mg
			В	Nickel (Ni)	7440-02-0		0.013	mg
			Supplier	Copper (Cu)	7440-50-8		0.3854	mg
Mold Compound-Black	0.852	mg		Epoxy resin	proprietary data		0.0426	mg
			Supplier	Phenolic Resin	Proprietary Data		0.0196	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.0426	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0034	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		0.0196	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		0.7242	mg
Plating	0.014	mg	Supplier	Palladium (Pd)	7440-05-3		0.001	mg
			В	Nickel (Ni)	7440-02-0		0.013	mg
			Supplier	Gold (Au)	7440-57-5		0	mg
Wire Bond	0.002	mg	Supplier	Palladium (Pd)	7440-05-3		0	mg
			Supplier	Gold (Au)	7440-57-5		0	mg
			Supplier	Copper (Cu)	7440-50-8		0.002	mg