ASSOCIATION CONNECT	© Copyright 2005. IP	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 lowel 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										Mfg In	formation	1	
Supplier Infor	mation				·										
Company name*			Company un	Company unique ID			Unique ID Authority					Response Date*			
nsemi												2023-06-08			
Contact Name			Title - Contact			I	Phone - Contact*				Email	Email - Contact*			
Product-Env-Ste	wards	Product Enviro Compliance				NA				Produ	Product-Env-Stewards@onsemi.com				
uthorized Repre	esentative*	Title - Representative			I	Phone - Representative*				Email	Email - Representative*				
Product-Env-Ste	wards	Product Enviro Compliance				NA				Produ	Product-Env-Stewards@onsemi.com				
Reque	ster Item Number						Effective Date	Version	on Manufacturing Site		te	Weight*		UOM	Unit Type
							2023-06-08 CNS		CNS		15.6711 mg		Each		
Ianufacturin	g Proccess Informati	on						,				<u>'</u>			
Termin	al Plating / Grid Array Material		Terminal Base Alloy		J-STD-020 M	TD-020 MSL Rating		Peak Process Body Temperatu		e Max Time at Peak Temper		ature	nture Number of Reflow Cycles		eles
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)		Au) (no	CU Alloy 1		1		260		С	30	seco		3		
omments															
vel 1 - maximun	n time at peak temperatur	e during so	ldering is 10-3	0 seconds											
or more informa	ntion regarding material c	omposition	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 informationprovided 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 has not orditions 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 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 ri											
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	0.8	mg	Supplier	Silicon (Si)	7440-21-3		0.8	mg
Die Attach	0.1	mg	Supplier	Silver (Ag)	7440-22-4		0.055	mg
			Supplier	Phenolic Resin-2	54208-63-8		0.045	mg
Lead Frame	8.6748	mg	Supplier	Zinc (Zn)	7440-66-6		0.0109	mg
			Supplier	Iron (Fe)	7439-89-6		0.2054	mg
			Supplier	Copper (Cu)	7440-50-8		8.4513	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0072	mg
Mold Compound-Black	5.932		Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.416	mg
			Supplier	Carbon Black (C)	1333-86-4		0.018	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		5.201	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.297	mg
Plating	0.0643	mg	Supplier	Palladium (Pd)	7440-05-3		0.0026	mg
			В	Nickel (Ni)	7440-02-0		0.0612	mg
			Supplier	Gold (Au)	7440-57-5		0.0005	mg
Wire Bond - Au	0.1	mg	Supplier	Gold (Au)	7440-57-5		0.1	mg