IPC ASSOCIATION CONNECT ELECTRONICS INDUSTR	© Copyright 2005, TPG	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				Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater						Mfg Inf	formation	ı		
upplier Infor	mation															
Company name*			Company unique ID			τ	Unique ID Authority					Response Date*				
nsemi													2024-05-07			
Contact Name		Title - Contact			I	Phone - Contact*					Email - Contact*					
Product-Env-Stev	wards	Product Enviro Compliance				NA				Produ	Product-Env-Stewards@onsemi.com					
uthorized Repre	sentative*	Title - Representative			I	Phone - Representative*				Email	Email - Representative*					
Product-Env-Stewards			Product Enviro Compliance				NA				Produ	Product-Env-Stewards@onsemi.com				
Reques	ster Item Number						Effective Date	Version	Version Manufacturing Site		Site	Weight*		UOM	Unit Type	
							2024-05-07		F	PH4		73.596 r		mg	Each	
Ianufacturing	g Proccess Informati	on														
Termina	l Plating / Grid Array Material		Terminal Base Alloy		J-STD-020 MS	TD-020 MSL Rating		Peak Process Body Temperature		e Max Time a	Max Time at Peak Tempera		Number	of Reflow Cyc	eles	
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)		Au) (no	CU Alloy 1		1		260		C 30		seco	onds	3			
Comments																
vel 1 - maximum	ı time at peak temperatur	e during so	ldering is 10-3	0 seconds			·			·						
or more informa	tion regarding material c	omposition	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 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 complance 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 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 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 part shall apply.											
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 recruired 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	1.25	mg	Supplier	Silicon (Si)	7440-21-3		1.25	mg
Die Attach	0.136	mg	Supplier	Ethylene glycol dicyclopentenyl ether methacrylate	68586-19-6		0.0048	mg
			Supplier	Bis(a,a-dimethylbenzyl) Peroxide	80-43-3		0.0009	mg
			Supplier	Silver (Ag)	7440-22-4		0.1304	mg
Lead Frame	30.624	mg	Supplier	Magnesium (Mg)	7439-95-4		0.0459	mg
			Supplier	Silicon (Si)	7440-21-3		0.1991	mg
			В	Nickel (Ni)	7440-02-0		0.9187	mg
			Supplier	Copper (Cu)	7440-50-8		29.4603	mg
Mold Compound-Black	40.867	mg		Epoxy resin	proprietary data		3.8824	mg
			Supplier	Phenol Resin	Proprietary Data		2.0433	mg
			Supplier	Carbon Black (C)	1333-86-4		0.2043	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		34.7369	mg
Plating	0.223	mg	Supplier	Palladium (Pd)	7440-05-3		0.006	mg
			В	Nickel (Ni)	7440-02-0		0.213	mg
			Supplier	Gold (Au)	7440-57-5		0.004	mg
Wire Bond - Au	0.496	mg	Supplier	Gold (Au)	7440-57-5		0.496	mg