ASSOCIATION CONNE	© Copyright 2005. II	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 Typhttp://www.ipc.org/IPC-175x Distribute										als and Mf	g Infor	rmation			
Supplier Info	rmation																
Company name*	:	Company un	Company unique ID			Unique ID Authority					Response Date*						
nsemi													2025-07-04				
Contact Name			Title - Contac	Title - Contact			Phone - Contact*					Email - Contact*					
Product-Env-Ste	ewards	Product Enviro Compliance				NA					Product-Env-Stewards@onsemi.com						
uthorized Repr	esentative*	Title - Repres	Title - Representative			Phone - Representative*				Email - Representative*							
Product-Env-Sto	ewards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com							
Reque	ester Item Number						Effective Dat	te Versio	Version Ma		Manufacturing Site		eight*	k U	OM	Unit Type	
						TAL	2025-07-04 PH1			69.0		m	ıg	Each			
Ianufacturir	ng Proccess Informat	tion						·									
Termin	nal Plating / Grid Array Ma	Plating / Grid Array Material		Terminal Base Alloy		D-020 MSL Rating		Peak Process Body Temperature		re Max Time at Peak Temper		Temperatu	ature Number of Reflow Cycles		les		
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)			CU Alloy 1		1		260		С		30 seco		s 3				
Comments																	
vel 1 - maximu	m time at peak temperatu	re during so	oldering is 10-3	0 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).											
cadmium, hexavalentchromium, polybromin contains a RoHS restricted substance inexce encompass all such components. Supplier cet as of the date that Supplier completes this Company acknowledges that Supplier may hindependently verified information provided certification in this paragraph. If the Compan	nated biphenyls and/or polybrominated diphess of an applicable quantity limit, please indriffes that it gathered the information it provom. Supplier acknowledges that Company wave relied on informationprovided by others of the supplier agrees that, at a minimusy and the Supplier enter into a written agree yesource of the Supplier's liability and the C	enyl ethers (each a "RoHS restricted substan licate below which, if any, RoHS exemption vides in this form using appropriate methods vill rely on this certification in determining the s in completing this form, and that Supplier um, itssuppliers have provided certifications ement with respect to the identified part, the tompany's remedies for issues that arise rega	s of the European Union member states) of the ce") in excess of the applicable quantity limit is you believe may apply. If the part is an assemb to ensure its accuracy and that such informatio e compliance of its products with European Ur may not have independently verified such infor regarding their contributions to the part, and the erms and conditions of that agreement, including information the Supplier provides in this	dentified above. If a ally with lower level in is true and correct tion member state la mation. However, in ose certifications are ag any warranty righ	homogeneous material within the part components, the declaration shall to the best of its knowledge and belief, was that implement the RoHS Directive. In situations where Supplier has not the at least as comprehensive as the lats and/or remedies provided as part of						
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	0.09	mg	Supplier	Silicon (Si)	7440-21-3		0.09	mg
Die Attach	2.46	mg		Epoxy resin	proprietary data		0.246	mg
			Supplier	Silver (Ag)	7440-22-4		1.968	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.246	mg
Lead Frame	38.58	mg	Supplier	Zinc (Zn)	7440-66-6		0.0463	mg
			Supplier	Iron (Fe)	7439-89-6		0.9066	mg
			Supplier	Copper (Cu)	7440-50-8		37.6155	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0116	mg
Mold Compound-Black	24.35	mg		Epoxy resin	proprietary data		1.8263	mg
			Supplier	Phenolic Resin	Proprietary Data		0.6088	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		1.8263	mg
			Supplier	Carbon Black (C)	1333-86-4		0.1217	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		19.967	mg
Plating	3.44	mg	Supplier	Palladium (Pd)	7440-05-3		0.2614	mg
			В	Nickel (Ni)	7440-02-0		3.1304	mg
			Supplier	Gold (Au)	7440-57-5		0.0482	mg
Wire Bond	0.08	mg	Supplier	Palladium (Pd)	7440-05-3		0.0008	mg
			Supplier	Copper (Cu)	7440-50-8		0.0792	mg