ASSOCIATION CONNECT	© Copyright 2005. I	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										als and Mf	g Informat	ion	
Supplier Info	rmation														
Company name*			Company un	Company unique ID			Unique ID Authority					Response Date*			
nsemi											2023-06-08				
Contact Name		Title - Contact			I	Phone - Contact*					Email - Contact*				
Product-Env-Ste	wards	Product Enviro Compliance				NA					Product-Env-Stewards@onsemi.com				
uthorized Repro	esentative*	Title - Representative			I	Phone - Representative*					Email - Representative*				
Product-Env-Stewards			Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com				
Reque	ester Item Number			Mfr Item Name			Effective Date	e Version	n N	Manufacturing Site		W	eight*	UOM	Unit Type
				QUAD 2 I/P AN	QUAD 2 I/P AND GATE		2023-06-08		F	PH1		54	1.823	mg	Each
<b>Ianufacturin</b>	g Proccess Informa	tion													
Termin	nal Plating / Grid Array M	Plating / Grid Array Material		Terminal Base Alloy		D-020 MSL Rating		Peak Process Body Temperatur		re Max Time at Peak Temper		Temperatu	nture Number of Reflow Cycles		
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)			CU Alloy 1		1		260		С	30	seco		s <b>3</b>		
Comments															
vel 1 - maximun	n time at peak temperatı	are during so	oldering is 10-3	30 seconds		· · · · · · · · · · · · · · · · · · ·									
or more informa	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	0.496	mg	Supplier	Silicon (Si)	7440-21-3		0.496	mg
Die Attach	0.055	mg	Supplier	Silver (Ag)	7440-22-4		0.0412	mg
			Supplier	Epoxy resins	129915-35-1		0.0137	mg
Lead Frame	21.563	mg	Supplier	Zinc (Zn)	7440-66-6		0.0259	mg
			Supplier	Iron (Fe)	7439-89-6		0.5067	mg
			Supplier	Copper (Cu)	7440-50-8		21.0239	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0065	mg
Mold Compound-Black	32.2	mg		Epoxy resin	proprietary data		2.415	mg
			Supplier	Phenolic Resin	Proprietary Data		0.805	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		2.415	mg
			Supplier	Carbon Black (C)	1333-86-4		0.161	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		26.404	mg
Plating	0.161	mg	Supplier	Palladium (Pd)	7440-05-3		0.005	mg
			В	Nickel (Ni)	7440-02-0		0.153	mg
			Supplier	Gold (Au)	7440-57-5		0.003	mg
Wire Bond - Au	0.348	mg	Supplier	Gold (Au)	7440-57-5		0.348	mg