Contact Name Title - Contact	ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.				der both	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.								
Company unine* Company unine* Company unine* Company unine ID Unique ID Authority Response Date* 2024-05-17 2024-05-17 2024-05-17 Email - Contact* Product Env-Stewards Product Env-Stewards Product Env-Stewards Title - Representative Title - Representative Title - Representative Product Enviro Compliance NA Product Env-Stewards Product Enviro Compliance NA Product Env-Stewards Product Env-Stewards Product Env-Stewards NA Product Env-Stewards Na Na Variance Analysis Na Version Na Na Variance Analysis Na Na Version Na Na Version Na Version Na Na Version	752-21.1											als and Mfg	Informati	ion	
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Product-Env-Stewards Authorized Representative* Title - Representative Product Enviro Compliance Product Enviro Compliance NA Product Enviro Compliance NA Product-Env-Stewards P	nsemi											2024-05-1	7		
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Product Envis Compliance Requester Item Number Mfr Item Number	Product-Env-Stewar	rds		Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com			
Requester Item Number	uthorized Represen	ntative*	Title - Representative			I	Phone - Representative*			Email - Representative*					
Manufacturing Proccess Information Terminal Plating / Grid Array Material Terminal Base Alloy J-STD-020 MSL Rating Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds Terminal Plating soldering is 10-30 seconds	Product-Env-Stewar	rds	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com				
Manufacturing Proccess Information Terminal Plating / Grid Array Material Terminal Base Alloy J-STD-020 MSL Rating Peak Process Body Temperature Max Time at Peak Temperature Number of Reflow Cycles Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds Somments Evel 1 - maximum time at peak temperature during soldering is 10-30 seconds	Requester	Item Number	Mfr Item Number		Mfr Item Name			Effective Date	Version	on Manufacturing Site		W	eight*	UOM	Unit Type
Terminal Plating / Grid Array Material Terminal Base Alloy J-STD-020 MSL Rating Peak Process Body Temperature Max Time at Peak Temperature Number of Reflow Cycles 260 Comments Evel 1 - maximum time at peak temperature during soldering is 10-30 seconds			NC7SV32	2P5X	ULP-A 2-Input OR	Gate		2024-05-17		P	ВВ	5.8	342	mg	Each
Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds 3 omments vel 1 - maximum time at peak temperature during soldering is 10-30 seconds				arminal Raca	Alloy	STD 020 MSI	Pating	Pank Proc	ess Rody T	amparatur	a May Time at Peak	Tamparatus	Numb	per of Peflow Cyc	Jac
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1 1 0 0		me at neals temperature	during cal	doring is 10.3	0 seconds										
or more information 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		ium (Cr6+), Polybrominated Biphenyls (PB)	erial for Cadmium and quantity limit of 0.1% b B), Polybrominated Diphenyl Ethers (PBDE), a						
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 at it in 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 al 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	0.147	mg	Supplier	Silicon (Si)	7440-21-3		0.147	mg
Die Attach Epoxy	0.04	mg	Supplier	Silver (Ag)	7440-22-4		0.0368	mg
			Supplier	Phenolic Resin-2	54208-63-8		0.0032	mg
Lead Frame	2.213	mg	Supplier	Silver (Ag)	7440-22-4		0.0066	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0027	mg
			Supplier	Iron (Fe)	7439-89-6		0.052	mg
			Supplier	Copper (Cu)	7440-50-8		2.151	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0007	mg
Mold Compound-Black	3.182	mg	Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.9228	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0318	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		2.2274	mg
Plating	0.23	mg	Supplier	Tin (Sn)	7440-31-5		0.23	mg
Wire Bond - Au	0.03	mg	Supplier	Gold (Au)	7440-57-5		0.03	mg