Contact Name  Title - Contact Phone - Contact*  Product-Env-Stewards Authorized Representative* Product-Env-Stewards Product Enviro Compliance Authorized Representative* Product-Env-Stewards Product Enviro Compliance Phone - Representative* Phone - Representative* Phone - Representative* Phone - Representative* Product-Env-Stewards Product-Env-Stewards@onsemi.com Requester Item Number Mfr Item Number Mfr Item Name  Effective Date Version Manufacturing Site Weight* UOM Unit	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 le	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 name* Company unique ID  Unique ID Authority Response Date*  2025-06-07  2025-06-07  Contact Name Product-Env-Stewards Product Enviro Compliance NA Product-Env-Stewards Outhorized Product-Env-Stewards Product-Env-Stewards Product-Env-Stewards Product-Env-Stewards Outhorized Product-Env-Stewards Product-Env-Stewards Outhorized Product-Env-Stewards Product-Env-Stewards Outhorized Outhorized Product-Env-Stewards Outhorized Outhoriz	752-21.1											als and Mf	g Informatio	on	
Semi   File - Contact Name   Froduct Envisor Compliance   Stewards   Product Envisor Compliance   Phone - Contact*	upplier Inform	ation								,					
Title - Contact NA Product Env-Stewards Authorized Representative* Product Env-Stewards Product Enviro Compliance Title - Representative Title - Representative Title - Representative Title - Representative Product Enviro Compliance NA Product Env-Stewards Product Enviro Compliance NA Product Env-Stewards Product Env-Stewards Na Product Env-Stewards Na Product Env-Stewards Na Naunifacturing Site Weight* UOM Unit Naturing N	Company name* Company unique ID					Unique ID Authority				Response Date*					
Product-Env-Stewards	nsemi											2025-06-0	07		
Authorized Representative* Product-Env-Stewards Product Enviro Compliance Requester Item Number Requester Item	Contact Name			Title - Contact			P	Phone - Contact*				Email - Contact*			
Product Enviro Compliance Requester Item Number Mfr Item Number Mfr Item Name Effective Date Version Manufacturing Site Weight* UOM Unit  Manufacturing Process Information  Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy	Product-Env-Stewa	ards		Product Enviro Compliance			1	NA				Product-Env-Stewards@onsemi.com			
Requester Item Number	Authorized Representative* Title				Γitle - Representative			Phone - Representative*			Email - Representative*				
EMI4193MTTAG   3Pair Low Res CMF   2025-06-07   MY1   14.037421   mg   Each	Product-Env-Stewards Product Enviro Compliance					1	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 3	Requeste	er Item Number	Mfr Item Number		Mfr Item Name			Effective Date	Version	Manufacturing Site		V	/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  Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds 3			EMI4193	MTTAG	3Pair Low Res CMI	F		2025-06-07		N	1Y1	1-	4.037421	mg	Each
Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds 3 omments				arminal Daga	Alloy	CTD 020 MCL 1	Pating	Dook Prog	oge Pody T	amparatur	May Time at Peak	Tomporatu	ro Numbo	or of Doflow Cu	alas
omments					Alloy J-S	31D-020 MSL 1	Katilig		ess Body 1	T *				of Kellow Cyc	les
	•	ii (511) - aimealeu	C	Alloy	1			200		IC	30	Second	.s   <i>3</i>		
ver 1 - maximum time at peak temperature un mg sotuering is 10-50 seconds		ime at neak temperature	duning cal	domina is 10	20 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  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 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 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	1.517421	mg	Supplier	Silicon (Si)	7440-21-3		1.5174	mg
Die Attach Epoxy	0.29	mg		Epoxy resin	proprietary data		0.1885	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		0.1015	mg
Lead Frame	3.19	mg	Supplier	Zinc (Zn)	7440-66-6		0.0038	mg
			Supplier	Iron (Fe)	7439-89-6		0.075	mg
			Supplier	Copper (Cu)	7440-50-8		3.1103	mg
			Supplier	Phosphorus (P)	7723-14-0		0.001	mg
Mold Compound-Black	7.7	mg	Supplier	Epoxy and Phenolic Resin	40216-08-8		0.616	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0385	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		0.154	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		6.6605	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.231	mg
Plating	0.08	mg	Supplier	Silver (Ag)	7440-22-4		0.0055	mg
			Supplier	Palladium (Pd)	7440-05-3		0.0058	mg
			В	Nickel (Ni)	7440-02-0		0.0679	mg
			Supplier	Gold (Au)	7440-57-5		0.0008	mg
Protection coat	1.14	mg		Polyimide	proprietary data		1.14	mg
Wire Bond - Au	0.12	mg	Supplier	Gold (Au)	7440-57-5		0.12	mg