	ASSOCIATION CONNECTINE ELECTRONICS INDUSTRIES	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.										
Company name Company name Company unique ID	752-21.1											ials and Mfg Information				
Semilar First Fi	upplier Inform	nation														
Title - Contact Name Product Env-Stewards Product Env-Stewards Product Enviro Compliance Product Env-Stewards Product Enviro Compliance Product Env-Stewards Product Enviro Compliance Product Env-Stewards Product Env-St	Company name* Company unique ID					Unique ID Authority				Response Date*						
Product-Env-Stewards Authorized Representative* Product-Env-Stewards Product Enviro Compliance Authorized Representative* Product-Env-Stewards Product-Env-S	nsemi												2025-06-08			
Authorized Representative* Product-Env-Stewards Product Enviro Compliance Requester Item Number Requester Item Number Representative Product Enviro Compliance Requester Item Number Representative* Requester Item Number	ontact Name		Title - Contact			I	Phone - Contact*				Email - Contact*					
Product Envisor Compliance Requester Item Number Mfr Item Number Mfr Item Number Mfr Item Name Effective Date Version Manufacturing Site Weight* UOM Un Summarized Process Information Terminal Plating / Grid Array Material Terminal Base Alloy J-STD-020 MSL Rating Matte Tin (Sn) - annealed CU Alloy Terminal Curio Stemarized 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 Base Alloy Terminal Base Alloy Terminal Plating / Grid Array Material Terminal Base Alloy Terminal Plating / Grid Arra	Product-Env-Stewa	ards	Product Enviro Compliance			1	NA				Product-Env-Stewards@onsemi.com					
Requester Item Number	uthorized Represe	entative*	Title - Representative			I	Phone - Representative*			Email - Representative*						
FDS4559 FET -60V 55.0 mOhm SO8 2025-06-08 PHI 90.75107 mg Earling Process 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	Product-Env-Stewa	ards	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 3	Requeste	Requester Item Number Mfr Ite		m Number Mfr Item Name				Effective Date	Version	N	Ianufacturing Site	V	Veight*	UOM	Unit Type	
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Matte Tin (Sn) - annealed CU Alloy 1 260 C 30 seconds 3 omments				arminal Reso	Alloy	STD 020 MSI	Pating	Dank Droo	ass Rady Ta	mparatur	a May Time at Pool	Tamparate	Ira Numb	or of Patlow Cyc	dae	
omments					Alloy J-	31D-020 MSL	Z Katilig		ess body 1e					el of Kellow Cyc	les	
	•	n (5n) - anneaicu	C	O Alloy	1			200		<u> </u>	30	Second	15 3			
ver 1 - maximum ume at peak temperature uuring soutering is 10-30 seconus		ime at neak temperature	during cal	doring is 10-2	10 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).											
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 it provides in this form using appropriate methods to ensure its accuracy and that such 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 compliance 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 has not independently verified information provided by others, Supplier agrees that, at a minimum, its 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 Standard Terms and Conditions of Sale applicable to such part shall apply.											
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	7.1	mg	Supplier	Silicon (Si)	7440-21-3		7.1	mg
Die Attach	0.74	mg	Supplier	Silver (Ag)	7440-22-4		0.6327	mg
			Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.1073	mg
Lead Frame	34.4046		Supplier	Silver (Ag)	7440-22-4		1.7204	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0413	mg
			Supplier	Iron (Fe)	7439-89-6		0.8086	mg
			Supplier	Copper (Cu)	7440-50-8		31.8068	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0275	mg
Mold Compound-Black	46.48	mg	Supplier	Ortho Cresol Novolac Resin	29690-82-2		4.8804	mg
			Supplier	Carbon Black (C)	1333-86-4		0.2324	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		39.9728	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		1.3944	mg
Plating	1.09389	mg	Supplier	Tin (Sn)	7440-31-5		1.0939	mg
Wire Bond - Cu	0.93258	mg	Supplier	Copper (Cu)	7440-50-8		0.9326	mg