IPC ASSOCIATION ELECTRONICS	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights re 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 le level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.							sembly with loweresponsibility.		
1752-21.1		IPC Web Site for Information on IPC-1752 Standard Form Type http://www.ipc.org/IPC-175x Distribute					* Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materi					ials and Mfg Information			
Supplier	Information														
Company name* Company unique ID				ique ID	Unique		nique ID Authority			Respon	Response Date*				
nsemi											2023-00	2023-06-08			
Contact Na	ame	Title - Contact			]	Phone - Contact*				Email - Contact*					
Product-E	Inv-Stewards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com					
uthorized	l Representative*	Title - Representative			]	Phone - Representative*				Email -	Email - Representative*				
Product-E	inv-Stewards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com					
	Requester Item Number Mfr It		m Number Mfr Item Name				Effective Da	ate Ve	te Version Manufacturing Site			Weight*	UOM	Unit Type	
		FAN54511APUCX 2 IN 3A SI		2 IN 3A SMBC-pp	3A SMBC-ppath-Slave		2023-06-08 P		РВВ		12.807499	mg	Each		
Manufac	cturing Proccess Informa	ation						<u>'</u>							
	Terminal Plating / Grid Array Material			Terminal Base Alloy J-STD-020 MSI		SL Rating	Peak Process Body Tempera		ody Temperati	nture Max Time at Peak Temper		ture Numbe	r of Reflow Cyc	eles	
SnAgCu			CU Alloy 1				260 C 30		seconds 3						
Comments															
vel 1 - ma	aximum time at peak temperat	ure during sol	dering is 10-3	30 seconds											
or more i	nformation regarding materia	l 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 suppliers have 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 have not 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 liability and the Company's remedies for issues that arise regarding information the Supplier provides											
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).

<b>Homogeneous Material</b>	Weight	Unit of Measure	Level	Substance	CAS Exempt		Weight	Unit of Measure
Backside Protection Film	0.384206		Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.0804	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0071	mg
			Supplier	Silica (SiO2)	14464-46-1		0.2162	mg
			Supplier	2,4,6-Tris[Bis(Methoxymethyl)Amino]-1,3,5-Triazine	3089-11-0		0.0804	mg
Die	8.58638		Supplier	Silicon (Si)	7440-21-3		8.5211	mg
			Supplier	Polyimide	Proprietary Data		0.0653	mg
Solder Ball	3.83281		Supplier	Silver (Ag)	7440-22-4		0.2165	mg
			Supplier	Tin (Sn)	7440-31-5		3.5932	mg
			Supplier	Copper (Cu)	7440-50-8		0.0231	mg
Under Bump Metal	0.004103	_	Supplier	Titanium (Ti)	7440-32-6		0.001	mg
			Supplier	Copper (Cu)	7440-50-8		0.0031	mg