IPC ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES®	**Material Composition Declaration** 	This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

1752-21.1	IPC Web Site for Information on IPC-1752 Standard **http://www.ipc.org/IPC-175x**	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Information

Supplier Information

Company name* **onsemi**	Company unique ID	Unique ID Authority	**Response Date*** **2023-06-08**
Contact Name **Product-Env-Stewards**	Title - Contact Product Enviro Compliance	**Phone - Contact*** **NA**	**Email - Contact*** **Product-Env-Stewards@onsemi.com**
Authorized Representative* **Product-Env-Stewards**	Title - Representative Product Enviro Compliance	**Phone - Representative*** **NA**	**Email - Representative*** **Product-Env-Stewards@onsemi.com**

	Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight*	UOM	Unit Type
		AR0331SRSC00XUE E0-DPBR1	3.1 MP 1/3 CIS	2023-06-08		TWU	214.83	mg	Each

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
	SnAgCu	**CU Alloy**	**4**	**260**	C	**30**	seconds	**3**

Comments

For more information regarding material composition please refer to page 3

RoHS Material Composition Declaration		**Declaration Type ***	**Detailed**
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 informationprovided 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, itssuppliers 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 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 liability and the Company’s remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard Terms andConditions of Sale applicable to such part shall apply.			
RoHS Declaration *	1 - Item(s) does not contain RoHS restricted substances per the definition above	**Supplier Acceptance ***	**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			
Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.			
Supplier Digital Signature	**Rastislav Drska**		

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	37.8	mg		Misc.	proprietary data		0.1436	mg
			Supplier	Silicon (Si)	7440-21-3		37.2821	mg
			Supplier	Aluminum (Al)	7429-90-5		0.3742	mg
Die Attach	4.87	mg	Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		1.8262	mg
			Supplier	Ethylene Glycol	107-21-1		0.0487	mg
			Supplier	Sulfonium (Thiodi-4,1-phenylene)	89452-37-9		0.1461	mg
			Supplier	Modified Silicon Dioxide (SiO2)	67762-90-7		1.0227	mg
			Supplier	Formaldehyde Polymer	9003-36-5		1.8262	mg
Imaging Lens	38.3	mg	Supplier	Titanium Dioxide (TiO2)	13463-67-7		1.915	mg
			Supplier	Sodium Monoxide (Na2O)	1313-59-3		1.915	mg
			Supplier	Boron Trioxide (B2O3)	1303-86-2		1.915	mg
			Supplier	Zinc Monoxide (ZnO)	1314-13-2		1.915	mg
			B	Antimony Trioxide (Sb2O3)	1309-64-4		0.1915	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		1.915	mg
			Supplier	Potassium Monoxide (K2O)	12136-45-7		1.915	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		26.6185	mg
Lid Attach	3.85	mg	Supplier	2-phenoxy ethyl acrylate	48145-04-6		1.7325	mg
			Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		0.77	mg
			Supplier	Filler (SiO2)	68909-20-6		0.4812	mg
			Supplier	Acrylate Oligomer	Proprietary Data		0.0192	mg
			Supplier	Curative	Proprietary Data		0.077	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.77	mg
Mold Compound-Black	49.6	mg		Phenolic Resin	proprietary data		7.44	mg
			Supplier	Oxirane	39817-09-9		7.44	mg
			Supplier	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		1.488	mg
			Supplier	Carbon Black (C)	1333-86-4		0.496	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		31.744	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		0.992	mg
Solder Ball	34.83	mg	Supplier	Silver (Ag)	7440-22-4		1.0449	mg
			Supplier	Tin (Sn)	7440-31-5		33.611	mg
			Supplier	Copper (Cu)	7440-50-8		0.1742	mg
Substrate and Solder Mask	45.2	mg	Supplier	Fiber Glass (SiO2)	65997-17-3		9.5779	mg

			Supplier	Inorganic Filler of Solder Mask_Talc (Mg3Si4O10(OH)2)	14807-96-6		0.5921	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.1492	mg
			Supplier	Acetophenone Derivative	Proprietary Data		0.8859	mg
			Supplier	Carbon Black (C)	1333-86-4		0.1492	mg
			Supplier	2,4-Diethyl-9H-thioxanthen-9-one (DETX)	82799-44-8		0.1492	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		4.3934	mg
			Supplier	Solvent Naphtha (Solvent oil)	64742-94-5		1.7718	mg
			Supplier	Bismaleimide Triazine resin	Proprietary Data		1.5187	mg
			Supplier	Copper (Cu)	7440-50-8		21.4293	mg
			Supplier	Barium Sulfate (BaSO4)	7727-43-7		4.5833	mg
Wire Bond - Au	0.38	mg	Supplier	Gold (Au)	7440-57-5		0.38	mg