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*** **2024-09-21**
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
		AR0134CSSC00SUEA0-TPBR	1.2 MP 1/3 GS CIS	2024-09-21		TWU	191.2	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	29.5	mg		Misc.	proprietary data		0.1121	mg
			Supplier	Silicon (Si)	7440-21-3		29.0958	mg
			Supplier	Aluminum (Al)	7429-90-5		0.2921	mg
Die Attach	1.8	mg	Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		0.675	mg
			Supplier	Ethylene Glycol	107-21-1		0.018	mg
			Supplier	Sulfonium (Thiodi-4,1-phenylene)	89452-37-9		0.054	mg
			Supplier	Modified Silicon Dioxide (SiO2)	67762-90-7		0.378	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.675	mg
Imaging Lens	17.4	mg	Supplier	Titanium Dioxide (TiO2)	13463-67-7		0.9158	mg
			Supplier	Sodium Monoxide (Na2O)	1313-59-3		0.9158	mg
			Supplier	Boron Trioxide (B2O3)	1303-86-2		0.0917	mg
			Supplier	Zinc Monoxide (ZnO)	1314-13-2		0.9158	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		0.9158	mg
			Supplier	Potassium Monoxide (K2O)	12136-45-7		0.9158	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		12.7295	mg
Lid Attach	1.46	mg	Supplier	2-phenoxy ethyl acrylate	48145-04-6		0.657	mg
			Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		0.292	mg
			Supplier	Epoxy Prepolymer	Proprietary Data		0.1825	mg
			Supplier	Acrylate Oligomer	Proprietary Data		0.0073	mg
			Supplier	Curative	Proprietary Data		0.0292	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.292	mg
Mold Compound-Black	65.83	mg		Phenolic Resin	proprietary data		9.8745	mg
			Supplier	Oxirane	39817-09-9		9.8745	mg
			Supplier	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		1.9749	mg
			Supplier	Carbon Black (C)	1333-86-4		0.6583	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		42.1312	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		1.3166	mg
Solder Ball	35.81	mg	Supplier	Silver (Ag)	7440-22-4		1.0743	mg
			Supplier	Tin (Sn)	7440-31-5		34.5567	mg
			Supplier	Copper (Cu)	7440-50-8		0.179	mg
Substrate and Solder Mask	39.07	mg	Supplier	Bis(3-ethyl-5-methyl-4-maleimidophenyl)methane	105391-33-1		0.4376	mg

			Supplier	Fiber Glass (SiO2)	65997-17-3		5.0635	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0586	mg
			Supplier	Inorganic Filler of Solder Mask_Talc (Mg3Si4O10(OH)2)	14807-96-6		0.9103	mg
			Supplier	Cyanic acid (1-methylethylidene)di-4,1-phenylene ester homopolymer	25722-66-1		0.4376	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.2266	mg
			Supplier	Chromium (Cr)	7440-47-3		0.0039	mg
			Supplier	Acetophenone Derivative	Proprietary Data		1.3635	mg
			Supplier	Carbon Black (C)	1333-86-4		0.2266	mg
			Supplier	2,4-Diethyl-9H-thioxanthen-9-one (DETX)	82799-44-8		0.2266	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		4.6884	mg
			B	Nickel (Ni)	7440-02-0		0.5509	mg
			Supplier	Gold (Au)	7440-57-5		0.0195	mg
			Supplier	Solvent Naphtha (Solvent oil)	64742-94-5		2.731	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.4376	mg
			Supplier	Copper (Cu)	7440-50-8		14.6356	mg
			Supplier	Barium Sulfate (BaSO4)	7727-43-7		7.0521	mg
Wire Bond - Au	0.33	mg	Supplier	Gold (Au)	7440-57-5		0.33	mg