IPC ASSOCIATION CONNECTING 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 lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.									
752-21.1	IPC Web Site for Information on IPC-1752 Standard Form Typhttp://www.ipc.org/IPC-175x Distribute			Form Type <sup>3</sup> Distribute	*	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Information								
upplier Inform	ation													
Company name*			Company unique ID			J	Unique ID Authority				Response Date*			
nsemi											2024-05-05			
Contact Name			Title - Contact			I	Phone - Contact*			Email - Contact*				
Product-Env-Stewards			Product Enviro Compliance			1	NA			Product-Env-Stewards@onsemi.com				
Authorized Representative*			Title - Representative			I	Phone - Representative*			Email - Representative*				
Product-Env-Stewards			Product Envi	Product Enviro Compliance			NA			Product-Env-Stewards@onsemi.com				
Requester Item Number		Mfr Item	m Number Mfr Item Name				Effective Date	Version	M	anufacturing Site	Weig	ht*	UOM	Unit Type
		MT9V024	4IA7XTM-	WVGA 1/3 GS CIS			2024-05-05		T	WU	159.0	)	mg	Each
lanufacturing l	Proccess Informati	on												
Terminal Plating / Grid Array Material Terminal Base Alloy J-STD-020 MSI				Rating	Peak Proce	ss Body Te	mperature	Max Time at Peak	Temperature	Numbe	r of Reflow Cyc	les		
SnAgCu		C	U Alloy	3			260		C	30	seconds	3		
omments														
TTENTION: MSL	3 Rated item requires	Bake and Di	ry Pack (after	r electrical test)						·			•	
or more informatio	on regarding material co	omposition r	olease 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 knowledges 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 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 and Conditions of Sale app										
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	22.8	mg		Misc.	proprietary data		0.0866	mg
			Supplier	Silicon (Si)	7440-21-3		22.4876	mg
			Supplier	Aluminum (Al)	7429-90-5		0.2257	mg
Die Attach	2.19	mg	Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		0.8213	mg
			Supplier	Ethylene Glycol	107-21-1		0.0219	mg
			Supplier	Sulfonium (Thiodi-4,1-phenylene)	89452-37-9		0.0657	mg
			Supplier	Modified Silicon Dioxide (SiO2)	67762-90-7		0.4599	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.8213	mg
Imaging Lens	25.2	mg	Supplier	Titanium Dioxide (TiO2)	13463-67-7		1.26	mg
			Supplier	Sodium Monoxide (Na2O)	1313-59-3		1.26	mg
			Supplier	Boron Trioxide (B2O3)	1303-86-2		1.26	mg
			Supplier	Zinc Monoxide (ZnO)	1314-13-2		1.26	mg
			В	Antimony Trioxide (Sb2O3)	1309-64-4		0.126	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		1.26	mg
			Supplier	Potassium Monoxide (K2O)	12136-45-7		1.26	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		17.514	mg
Lid Attach	1.42	mg	Supplier	2-phenoxy ethyl acrylate	48145-04-6		0.639	mg
			Supplier	Bisphenol A_Epichlorohydrin Polymer	25068-38-6		0.284	mg
			Supplier	Epoxy Prepolymer	Proprietary Data		0.1775	mg
			Supplier	Acrylate Oligomer	Proprietary Data		0.0071	mg
			Supplier	Curative	Proprietary Data		0.0284	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.284	mg
Mold Compound-Black	53.88	mg		Phenolic Resin	proprietary data		8.082	mg
			Supplier	Oxirane	39817-09-9		8.082	mg
			Supplier	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		1.6164	mg
			Supplier	Carbon Black (C)	1333-86-4		0.5388	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		34.4832	mg
			Supplier	Silica Crystalline (SiO2)	14808-60-7		1.0776	mg
Solder Ball	21.74	mg	Supplier	Silver (Ag)	7440-22-4		0.6522	mg
			Supplier	Tin (Sn)	7440-31-5		20.9791	mg
			Supplier	Copper (Cu)	7440-50-8		0.1087	mg
Substrate and Solder Mask	31.5	mg	Supplier	Fiber Glass (SiO2)	65997-17-3		6.6749	mg

			Supplier	Inorganic Filler of Solder Mask_Talc (Mg3Si4O10(OH)2)	14807-96-6	0.4126	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9	0.104	mg
			Supplier	Acetophenone Derivative	Proprietary Data	0.6174	mg
			Supplier	Carbon Black (C)	1333-86-4	0.104	mg
			Supplier	2,4-Diethyl-9H-thioxanthen-9-one (DETX)	82799-44-8	0.104	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2	3.0618	mg
			Supplier	Solvent Naphtha (Solvent oil)	64742-94-5	1.2348	mg
			Supplier	Bismaleimide Triazine resin	Proprietary Data	1.0584	mg
			Supplier	Copper (Cu)	7440-50-8	14.9341	mg
			Supplier	Barium Sulfate (BaSO4)	7727-43-7	3.1941	mg
Wire Bond - Au	0.27	mg	Supplier	Gold (Au)	7440-57-5	0.27	mg