IPC  ASSOCIATION CON ELECTRONICS INC		Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both 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 lowe 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 Typ http://www.ipc.org/IPC-175x Distribute				* Declaration Class * Class 6 - RoHS Yes/No. Homogeneous Materi					ials and Mfg Information				
upplier In	nformation				·										
Company name* Company unique ID				que ID	Unique		nique ID Authority			Response Date*					
nsemi											2023-06-08				
Contact Name	e	Title - Contact			I	Phone - Contact*				Email - Contact*					
Product-Env-	-Stewards	Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com					
uthorized Re	epresentative*	Title - Representative			I	Phone - Representative*				Email - Representative*					
Product-Env-	-Stewards	Product Envi	Product Enviro Compliance			NA				Product-Env-Stewards@onsemi.com					
Re	equester Item Number	Mfr Item	Number	Mfr Item Name			Effective Date	Version	n	Manufacturing Site	V	Veight*	UOM	Unit Type	
		NCP591:	51MN28TYG	1.5A 2.8V VLDO I	REGULATOR	1	2023-06-08				4	0.0	mg	Each	
<b>Ianufactu</b>	ring Proccess Informa	ation						·						·	
Terminal Plating / Grid Array Material Terminal Base Alloy			Alloy J-	STD-020 MSI	D-020 MSL Rating Peak Process Body Temperature Max Time at Pea					Temperatu	ire Num	ber of Reflow Cyc	eles		
Ma	atte Tin (Sn) - annealed	C	CU Alloy	1			260		C	30	second	ls 3			
omments															
vel 1 - maxin	mum time at peak tempera	ture during sol	dering is 10-3	0 seconds											
or more info	ormation regarding materia	al 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 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 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 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	0.4	mg	Supplier	Silicon (Si)	7440-21-3		0.4	mg
Die Attach	0.95	mg	Supplier	Silver (Ag)	7440-22-4		0.7125	mg
	1		Supplier	Epoxy resins	129915-35-1		0.2375	mg
Lead Frame	14.94	mg	Supplier	Silver (Ag)	7440-22-4		2.9282	mg
			Supplier	Iron (Fe)	7439-89-6		0.1195	mg
			Supplier	Copper (Cu)	7440-50-8		11.8922	mg
Mold Compound-Black	20.0			Epoxy resin	proprietary data		1.4	mg
			Supplier	Phenolic Resin	Proprietary Data		1.4	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		3	mg
			Supplier	Carbon Black (C)	1333-86-4		0.1	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		14.1	mg
Plating	1.11	mg	Supplier	Tin (Sn)	7440-31-5		1.11	mg
Wire Bond - Au	2.6	mg	Supplier	Gold (Au)	7440-57-5		2.6	mg