IPC ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.				der both This	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					Form Type * Distribute	* Declaration Class * Class 6 - RoHS Yes/No. Homogeneous Mater					ials and Mfg Information			
upplier Inform	ation													
Company name*			Company unique ID			U	Unique ID Authority				Response Date*			
nsemi											2024-05-09			
Contact Name			Title - Contact			Pl	Phone - Contact*				Email - Contact*			
Product-Env-Stewar	rds		Product Enviro Compliance			N	NA				Product-Env-Stewards@onsemi.com			
uthorized Represen	ntative*		Title - Representative			Pl	Phone - Representative*			Email - Representative*				
Product-Env-Stewar	rds		Product Enviro Compliance			N	NA				Product-Env-Stewards@onsemi.com			
Requester	Requester Item Number Mfr		r Item Number Mfr Item Name			Eff		Version	N	Manufacturing Site	V	eight*	UOM	Unit Type
		MM5Z4688T1G ZEN SOD523 L		ZEN SOD523 LOW	V IZ REG .5W 4.7	7V 2	2024-05-09 CN1		CN1	1.	734	mg	Each	
	Process Informatio		arminal Daga	Alloy	STD-020 MSL Ra	nting	Dook Proo	oge Pody T	omporatur	e Max Time at Peak	Tamparatu	ra Numb	er of Reflow Cyc	los
			Terminal Base Alloy J-ST CU Alloy 1		81D-020 MSL Ka	ung	260	ess Body 16	ss Body Temperature Max Time at Peak C 30		seconds 3		er of Reflow Cyc	ies
•	(Sii) - aimeaieu	C	O Alloy	1			1200		IC	30	Isecond	8 3		
omments	me at neels termners to	duning c-1	domina ia 10 '	20 seconds										
	me at peak temperature													
r more informatio	n regarding material co	mposition p	please refer t	o 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 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 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	0.04	mg	Supplier	Silicon (Si)	7440-21-3		0.04	mg
Lead Frame	0.58	mg	В	Nickel (Ni)	7440-02-0		0.221	mg
			Supplier	Iron (Fe)	7439-89-6		0.3051	mg
			Supplier	Copper (Cu)	7440-50-8		0.0539	mg
Mold Compound-Black	1.08		Supplier	Boron zinc hydroxide oxide	138265-88-0		0.0324	mg
			Supplier	Zinc Monoxide (ZnO)	1314-13-2		0.0054	mg
			Supplier	2,4,6-triamino-s-triazincompd.withs-triazine-triol	37640-57-6		0.0324	mg
			Supplier	Silica Amorphous (SiO2)	7631-86-9		0.864	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0108	mg
			Supplier	Ortho-Cresol Novolac Resin	29690-82-2		0.0864	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.0486	mg
Plating	0.03	mg	Supplier	Tin (Sn)	7440-31-5		0.03	mg
Wire Bond - Cu	0.004	mg	Supplier	Copper (Cu)	7440-50-8		0.004	mg