IPC ASSOCIATION CONNI ELECTRONICS INDUS	© Copyright 2005.	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 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 Typ http://www.ipc.org/IPC-175x Distribute				* Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater					ials and Mfg Information			
upplier Info	formation	,												
Company name*			Company unique ID			Ţ	Unique ID Authority				Response Date*			
nsemi											2024-05-16			
Contact Name		Title - Contact			P	Phone - Contact*				Email - Contact*				
Product-Env-St	Stewards		Product Enviro Compliance			I	NA				Product-Env-Stewards@onsemi.com			
uthorized Rep	presentative*	Title - Representative			P	Phone - Representative*			Email - Representative*					
Product-Env-St	Stewards	Product Enviro Compliance			1	NA				Product-Env-Stewards@onsemi.com				
Requ	Requester Item Number Mfr Ite		m Number Mfr Item Name			Effective		Version	N	Ianufacturing Site	We	ight*	UOM	Unit Type
		LM431SBCMFX SHUNT-RE		SHUNT-REG 1% S	3 1% SOT-23F		2024-05-16		C	CNF		328	mg	Each
Ianufacturi	ing Proccess Informa	ation												
Terminal Plating / Grid Array Material T			Terminal Base Alloy J-STD-020 MSL I		Rating			e Max Time at Peak	Peak Temperature Number of Reflow Cycles					
Matte Tin (Sn) - annealed			CU Alloy 1				260		C	30	seconds	3		
omments														
vel 1 - maximu	um time at peak temperat	ure during sol	dering is 10-	30 seconds										
or more inform	mation regarding materia	l composition	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 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 St											
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	1.67	mg	Supplier	Silicon (Si)	7440-21-3		1.67	mg
Die Attach Epoxy	0.047	mg	Supplier	Silver (Ag)	7440-22-4		0.0432	mg
			Supplier	Phenolic Resin-2	54208-63-8		0.0038	mg
Lead Frame	4.826	_	Supplier	Zinc (Zn)	7440-66-6		0.0058	mg
			Supplier	Iron (Fe)	7439-89-6		0.1134	mg
			Supplier	Copper (Cu)	7440-50-8		4.7054	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0014	mg
Mold Compound-Black	5.51			Metal Hydroxide	proprietary data		0.1929	mg
			Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.4408	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0276	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		4.408	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.4408	mg
Plating	0.203	mg	Supplier	Tin (Sn)	7440-31-5		0.203	mg
Wire Bond - Au	0.072	mg	Supplier	Gold (Au)	7440-57-5		0.072	mg