IPC ASSOCIATION CONNE	© Copyright 2005. IP	Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.			der both level	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 Mfc Information			
Supplier Info	ormation								, , , , , , , , , , , , , , , , , , ,					
Company name*			Company unique ID			Uni	Unique ID Authority				Response Date*			
nsemi											2024-04-19			
Contact Name			Title - Contact			Pho	Phone - Contact*				Email - Contact*			
Product-Env-St	tewards		Product Enviro Compliance			NA	NA				Product-Env-Stewards@onsemi.com			
uthorized Rep	resentative*		Title - Representative			Pho	Phone - Representative*			Email - Representative*				
Product-Env-St	tewards		Product Enviro Compliance			NA	NA				Product-Env-Stewards@onsemi.com			
Requ	nester Item Number	NCL2801CDADR2G Enhanced, High-		Mfr Item Name		Ef	fective Date	Version	M	Manufacturing Site		Weight*	UOM	Unit Type
				Enhanced, High-Eft Controller for Light		or 20)24-04-19	.04-19 TH2			80.91	mg	Each	
Ianufacturi	ng Proccess Informat	ion												
Terminal Plating / Grid Array Material Terminal Base Alloy			Alloy J-S	STD-020 MSL Ratio	20 MSL Rating Peak Process Body Temperature Max Time at Peak Temperature Number of Reflow Cycles							cles		
Matte Tin (Sn) - annealed			CU Alloy 1			260 C 30		30	seconds 3					
omments														
vel 1 - maximu	ım time at peak temperatu	re during sol	dering is 10-3	0 seconds										
or more inform	nation regarding material o	composition 1	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 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 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											
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	3.09	mg	Supplier	Silicon (Si)	7440-21-3		3.09	mg
Die Attach	0.28	mg		Epoxy resin	proprietary data		0.028	mg
			Supplier	Silver (Ag)	7440-22-4		0.224	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.028	mg
Lead Frame	27.82	mg	Supplier	Silver (Ag)	7440-22-4		0.1669	mg
			Supplier	Zinc (Zn)	7440-66-6		0.0334	mg
			Supplier	Iron (Fe)	7439-89-6		0.6538	mg
			Supplier	Copper (Cu)	7440-50-8		26.9576	mg
			Supplier	Phosphorus (P)	7723-14-0		0.0083	mg
Mold Compound-Black	48.72	mg		Epoxy resin	proprietary data		2.436	mg
			Supplier	Phenolic Resin	Proprietary Data		2.436	mg
			Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.9744	mg
			Supplier	Carbon Black (C)	1333-86-4		0.2436	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		42.63	mg
Plating	0.94	mg	Supplier	Tin (Sn)	7440-31-5		0.94	mg
Wire Bond	0.06	mg	Supplier	Palladium (Pd)	7440-05-3		0.0013	mg
			Supplier	Gold (Au)	7440-57-5		0.0001	mg
			Supplier	Copper (Cu)	7440-50-8		0.0586	mg