ASSOCIATION CONNECTION ELECTRONICS INDUSTRI	Material Comp © Copyright 2005. I international and Pa	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 low 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  Form Typ				Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater						ials and Mfg Information				
Supplier Inform	mation															
Company name* Company			Company un	ompany unique ID			Unique ID Authority					Response Date*				
onsemi													2024-05-18			
Contact Name		Title - Conta	Title - Contact			Phone - Contact*					Email - Contact*					
Product-Env-Stew	ards	Product Envi	Product Enviro Compliance			NA					Product-Env-Stewards@onsemi.com					
Authorized Representative*				Title - Representative			Phone - Representative*				Email - Representative*					
Product-Env-Stewards			Product Enviro Compliance				NA				Product-Env-Stewards@onsemi.com					
Reques	ter Item Number			em Number Mfr Item Name			Effective Da	ite V	Version M		Manufacturing Site		Veight*	k	UOM	Unit Type
				LIN STEPPER DRIVER, STALL		LL	2024-05-18	Т		BE4		5	15.45		mg	Each
<b>Ianufacturing</b>	Process Informa	tion														
Termina	Plating / Grid Array Material		Terminal Base Alloy J		J-STD-020 M	ISL Rating	Peak Pro	Peak Process Body Temperatur		are Max Time at Peak Tempe		Temperatu	erature Number of Reflow Cycles		les	
Precious metal (e.g. Ag,Au, NiPdAu) (no Sn)		PdAu) (no	CU Alloy 2		2		260		С	30 seco		secono	ls 3			
Comments																
TTENTION: MS	L 2 Rated item require	es Dry Pack (	(after electrical	test)												
or more informat	ion regarding material	composition	please refer to	page 3												

RoHS Material Composition Declaration			Declaration Type *	Detail	led						
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 informationprovided 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 has not orditions 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 substa	ances per the definition above	Supplier Ac	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											
Instructional Complete all of the required	fields on all neggs of this form. Calcut th		a duan dawn. This will display the signature on	a Digitally sign	the declaration (if recruired by the						
Instructions: Complete all of the required Requester) and click on Submit Form to			e drop-down. This will display the signature ar	ea. Digitally sign	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	15.99	mg	Supplier	Silicon (Si)	7440-21-3		15.99	mg
Die Attach	2.86	mg	Supplier	Organic peroxide	3006-86-8		0.0214	mg
			Supplier	Diluent B	Proprietary Data		0.143	mg
			Supplier	Diluent A	Proprietary Data		0.1144	mg
			Supplier	Dicyandiamine	461-58-5		0.0071	mg
			Supplier	Aluminum Trioxide (Al2O3)	1344-28-1		2.288	mg
			Supplier	Formaldehyde Polymer	9003-36-5		0.286	mg
Lead Frame	172.4	mg	Supplier	Zinc (Zn)	7440-66-6		0.1724	mg
			Supplier	Iron (Fe)	7439-89-6		3.9652	mg
			Supplier	Copper (Cu)	7440-50-8		168.09	mg
			Supplier	Phosphorus (P)	7723-14-0		0.1724	mg
Mold Compound-Black	322.04	mg		Epoxy resin	proprietary data		16.102	mg
			Supplier	Phenolic Resin	Proprietary Data		6.4408	mg
			Supplier	Ortho Cresol Novolac Resin	29690-82-2		8.051	mg
			Supplier	Carbon Black (C)	1333-86-4		1.6102	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		289.836	mg
Plating	1.62	mg	Supplier	Palladium (Pd)	7440-05-3		0.08	mg
			В	Nickel (Ni)	7440-02-0		1.4599	mg
			Supplier	Gold (Au)	7440-57-5		0.08	mg
Wire Bond - Au	0.54	mg	Supplier	Gold (Au)	7440-57-5		0.54	mg