IPC ASSOCIATION ELECTRONIC	© Copyright 2005.	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 lowe level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.									
1752-21.1		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					eous Materia	ials and Mfg Information			
upplier	r Information														
Company name*				Company unique ID			Unique ID Authority					Response Date*			
nsemi												2024-04-20			
Contact N	ame		Title - Contact			P	Phone - Contact*					Email - Contact*			
Product-I	Env-Stewards		Product Enviro Compliance			N	NA				Product-Env-Stewards@onsemi.com				
uthorize	d Representative*	Title - Representative			P	Phone - Representative*				Email - Representative*					
Product-I	Env-Stewards		Product Enviro Compliance			ı	NA				Product-Env-Stewards@onsemi.com				
	Requester Item Number Mfr Iter		m Number Mfr Item Name				Effective Date Version Manufacturing S		ring Site	W	eight*	UOM	Unit Type		
		MUN223	35T1G	NPN Digital Trans	sistor (BRT)	:	2024-04-20					1:	1.03	mg	Each
Ianufa	cturing Process Inform	ation													
	Terminal Plating / Grid Array Material		Terminal Base Alloy J-STD		-STD-020 MSL R	Rating	Peak Process Body Ter		Temperatu	perature Max Time at Peak		Temperatu	re Num	ber of Reflow Cyc	eles
Matte Tin (Sn) - annealed		CU Alloy 1				260 C		30	30 seconds		s 3				
omments															
<u>vel 1 - m</u>	aximum time at peak tempera	ture during sol	ldering is 10-3	30 seconds											
or more i	information regarding materia	l composition	please refer t	o 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 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 Standard Terms andConditions 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	ceptance *	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 recurined 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	0.22 mg		Supplier	Silicon (Si)	7440-21-3		0.22	mg
Lead Frame	3.06		В	Nickel (Ni)	7440-02-0		1.2393	mg
			Supplier	Iron (Fe)	7439-89-6		1.6983	mg
			Supplier	Copper (Cu)	7440-50-8		0.1224	mg
Mold Compound-Black	7.13		Supplier	Ortho Cresol Novolac Resin	29690-82-2		0.713	mg
			Supplier	Carbon Black (C)	1333-86-4		0.0356	mg
			Supplier	Aluminum Hydroxide (Al(OH)3)	21645-51-2		1.0338	mg
			Supplier	Fused Silica (SiO2)	60676-86-0		4.6345	mg
			Supplier	Phenolic Resin (Novolac)	9003-35-4		0.713	mg
Plating	0.52	mg	Supplier	Tin (Sn)	7440-31-5		0.52	mg
Wire Bond - Cu	0.1	mg	Supplier	Copper (Cu)	7440-50-8		0.1	mg