



Material Composition Declaration

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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.

Adobe Reader version 7.0.5 is required to complete this declaration.

1752-2 1.1	IPC Web Site for Information on IPC-1752 Standard http://www.ipc.org/IPC-175x	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat
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Supplier Information

Company Name * STMicroelectronics	Company Unique ID	Unique ID Authority	Response Date *	Response Document ID				
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	<input type="button" value="Duplicate Contact -> Authorized Representative"/>				
Authorized Representative * Emilio Castelli	Title - Representative APG Material Declaration Cham	Phone - Representative *	Email - Representative *	Supplier Comments or URL for Additional Information				
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type
	L99DZ80EP	AA9I*UH82AD6	2011-04-04	A	MU1A	260	mg	Each
Alternate Recommendation	TQFP 64 10x10x1.0 ExPad Dow			Alternate Item Comments	Internal ST reference: BSA: CD00286304 EcoPack2			

Manufacturing Process Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	Number of Reflow Cycles
Tin (Sn)	CU Alloy	3	260 C	30 seconds	3

Comments

Disclaimer: While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and

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RoHS Material Composition Declaration

Declaration Type *

Simplified

RoHS Directive 2002/95/EC **RoHS Definition:** Quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material for Cadmium

Supplier certifies that it gathered the information it provides in this form concerning RoHS restrictive substances 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 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 exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

RoHS Declaration * 1 - Item(s) does not contain RoHS restricted substances per the definition above

Supplier Acceptance * Accepted

Exemptions: 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.

Declaration Signature

Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.

Supplier Digital Signature

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).

Line Functions: +I Inserts a New Item /SubItem +M Inserts a new Material +C Inserts a new Substance Category +S Inserts a new Substance - Deletes the element line

	Item/SubItem Name		Homogeneous Material	Weight	Unit of Measure		Level	Substance Category		Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM	
															-	+		
+I	-I	TQFP 64 10x10x1.0	+M -M	Integrated circuit	27.783	mg	+C -C	Supplier	Silicon die	+S -S	Silicon (Si)	7440-21-3		27.401	mg			986,25
									+C -C	die metallization	+S -S	Aluminium (Al)	7429-90-5		0.003	mg		108
									+C -C	die metallization	+S -S	Copper (Cu)	7440-50-8		0.009	mg		324
									+C -C	die metallization	+S -S	Titanium (Ti)	7440-32-6		0.005	mg		180
									+C -C	die metallization	+S -S	Chromium (Cr)	7440-47-3		0.016	mg		576
									+C -C	die metallization	+S -S	Gold (Au)	7440-57-5		0.042	mg		1,512
									+C -C	die metallization	+S -S	Nickel (Ni)	7440-02-0		0.12	mg		4,319
									+C -C	die metallization	+S -S	Vanadium (V)	7440-62-2		0.009	mg		324
									+C -C	Die coating	+S -S	Gamma-butyrolactone	96-48-0		0.119	mg		4,283
									+C -C	Die coating	+S -S	Polyhydroxyamide	55295-98-2		0.053	mg		1,908
									+C -C	Die coating	+S -S	Alcoxysilane	na		0.004	mg		144
									+C -C	Die coating	+S -S	Aryl Silicilic Acid	na		0.002	mg		72
			+M -M	Leadframe	32.058	mg	+C -C	supplier	frame alloy	+S -S	Copper (Cu)	7440-50-8		27.87	mg			869,36
									+C -C	frame alloy	+S -S	Nickel (Ni)	7440-02-0		0.869	mg		27,107
									+C -C	frame alloy	+S -S	Silicium (Si)	7440-21-3		0.188	mg		5,864
									+C -C	frame alloy	+S -S	Magnesium (Mg)	7439-95-4		0.043	mg		1,341
									+C -C	frame coating	+S -S	Silver (Ag)	7440-22-4		3.088	mg		96,325
			+M -M	Die Attach	0.941	mg	+C -C	supplier	CDAF	+S -S	Silver (Ag)	7440-22-4		0.753	mg			800,21
									+C -C	CDAF	+S -S	epoxy resin	na		0.151	mg		160,46
									+C -C	CDAF	+S -S	aromatique amine			0.028	mg		29,756
									+C -C	CDAF	+S -S	Epoxyde Bisphenol A Resin	25068-38-6		0.009	mg		9,564
			+M -M	Bonding wire	1.877	mg	+C -C	Supplier	Bonding wire	+S -S	Copper (Cu)	7440-50-8		1.877	mg			1,000,0
			+M -M	Encapsulation	189.685	mg	+C -C	supplier	Moulding Compound	+S -S	Epoxy Resin	85954-11-6		15.175	mg			80,001

						+C	-C		Moulding Compound	+S	-S	Phenol Resin	26834-02-6		7.587	mg			39,998
						+C	-C		Moulding Compound	+S	-S	Silica, vitreous	60676-86-0		165.216	mg			871,00
						+C	-C		Moulding Compound	+S	-S	Carbon black	1333-86-4		0.948	mg			4,998
						+C	-C		Moulding Compound	+S	-S	Bismuth (Bi)	7440-69-9		0.759	mg			4,001
+M	-M	Finishing	7.657	mg		+C	-C	supplier	connection coating	+S	-S	Tin (Sn)	7440-31-5		7.657	mg			1,000,0