



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 * NA	Response Document ID				
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	Duplicate Contact -> Authorized Representative				
Authorized Representative * GIOVANNI GIACOPELLO	Title - Representative APM MD CHAMPION	Phone - Representative * NA	Email - Representative * NA	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
	STTH200R04TV1	BJGJ*C77L11J	2012-02-13	A	BO2A	27,000	mg	Each
Alternate Recommendation	Package:ISOTOP-R4-ALN-VIS			Alternate Item Comments	ECOPACK1/ROHS BSA REF: CD00193806			

Manufacturing Process Information

Terminal Plating / Grid Array Material Nickel (Ni)	Terminal Base Alloy CU Alloy	J-STD-020 MSL Rating Not Applicable	Peak Process Body Temperature C	Max Time at Peak Temperature seconds	Number of Reflow Cycles
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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 *

4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions

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.

Exemption List Version

EL-2006/690/EC

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7a. Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

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

+I	-I	Item/SubItem Name	+M	-M	Homogeneous Material	Weight	Unit of Measure	+C	-C	Level	Substance Category	+S	-S	Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM
																			-	+	
		BJGJ*C77L11J			Silicon Die	94.987	mg			Supplier	Silicon die			Silicium (Si)	7440-21-3		93.947	mg			989,05
										Supplier	Die metallization			Aluminium (Al)	7429-90-5		0.217	mg			2,285
														Titanium (Ti)	7440-32-6		0.045	mg			474
														Nickel (Ni)	7440-02-0		0.641	mg			6,748
														(Gold (Au))	7440-57-5		0.137	mg			1,442
					Leadframe	8,306.10	mg			Supplier	Alloy			Copper (Cu)	7440-50-8		8,288.864	mg			997,92
														Phosphorus (P)	12185-10-3		8.297	mg			999
										Supplier	Coating			Nickel (Ni)	7440-02-0		8.309	mg			1,000
														Phosphorus (P)	12185-10-3		0.636	mg			77
					Die Attach	214.019	mg			A	Lead/Lead Compound			Lead (Pb)	7439-92-1	7a. Lead	200.108	mg			935,00
										Supplier	Soft solder			Silver (Ag)	7440-22-4		3.21	mg			14,999
														Tin (Sn)	7440-31-5		10.701	mg			50,000
					Ceramic	190.599	mg			Supplier	Ceramic			Nickel (Ni)	7440-02-0		2.287	mg			11,999
														Phosphorus (P)	7723-14-0		0.172	mg			902
														Manganese (Mn)	7439-96-5		7.433	mg			38,998
														Titanium (Ti)	7440-32-6		0.781	mg			4,098
														Molybdenum oxide	1313-27-5		9.53	mg			50,000
														Alumina (Al2O3)	1344-28-1		170.396	mg			894,00
					Screw	7,360	mg			Supplier	Screw			Iron (Fe)	7439-89-6		7,360	mg			1,000,0
					Nut	1,061.9	mg			Supplier	Nut			Nickel (Ni)	7440-02-0		1,061.9	mg			1,000,0
					Bonding Wire	2.447	mg			Supplier	Bonding Wire			Aluminum(Al)	7429-90-5		2.447	mg			1,000,0
					Connection isoto	4,599.53	mg			Supplier	Connection			Copper (Cu)	7440-50-8		4,598.436	mg			999,76
										Supplier	Coating			Nickel (Ni)	7440-02-0		1.031	mg			224

									+S	-S	Phosphorus (P)	12185-10-3		0.068	mg			15
+M	-M	Encapsulation	5,062.80	mg	+C	-C	Supplier	Molding compound	+S	-S	Silica, vitreous	60676-86-0		3,569.27	mg			705,00
									+S	-S	Epoxy Cresol Novolak	29690-82-2		759.42	mg			150,00
									+S	-S	Phenol resin	9003-35-4		506.28	mg			100,00
					+C	-C	Supplier	Brominated Flame Re	+S	-S	Brominated epoxy resin	68541-56-0		126.57	mg			25,000
									+S	-S	Antimony Trioxide	1309-64-4		101.256	mg			20,000
+M	-M	Finishing	107.605	mg	+C	-C	Supplier	connection coating	+S	-S	Nickel (Ni)	7440-02-0		107.605	mg			1,000,0