



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
	STTH1003SBY-TR	AZDP*I38K1AF	2011-11-16	A	SH1A	300	mg	Each
Alternate Recommendation	TO 252 DPAK Package			Alternate Item Comments	ECOPACK1/ROHS BSA REF: CD00302042			

Manufacturing Process Information

Terminal Plating / Grid Array Material Matte Tin (Sn) - annealed	Terminal Base Alloy CU Alloy	J-STD-020 MSL Rating 1	Peak Process Body Temperature 260 C	Max Time at Peak Temperature 30 seconds	Number of Reflow Cycles 3
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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"

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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

+ - 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
																			-	+	
		AZDP*138K1AF			Silicon Die	3.539	mg			Supplier	Silicon die			Silicon	7440-21-3		3.451	mg			975,13
										Supplier	Die metallization			Aluminium(Al)	7429-90-5		0.057	mg			16,106
														Titanium (Ti)	7440-32-6		0.002	mg			565
														Nickel (Ni)	7440-02-0		0.024	mg			6,782
														(Gold (Au))	7440-57-5		0.005	mg			1,413
					Leadframe	163.796	mg			Supplier	Alloy			Copper (Cu)	7440-50-8		162.692	mg			993,26
														Iron (Fe)	7439-89-6		0.163	mg			995
														Iron Phosphide (FeP)	26508-33-8		0.049	mg			299
										Supplier	Coating			Nickel (Ni)	7440-02-0		0.884	mg			5,397
														Phosphorus (P)	12185-10-3		0.008	mg			49
					Die Attach	1.752	mg			JIG R	Lead/Lead Compound			Lead (Pb)	7439-92-1	7a. Lead	1.673	mg			954,90
										Supplier	Soft solder			Silver (Ag)	7440-22-4		0.044	mg			25,114
														Tin (Sn)	7440-31-5		0.035	mg			19,977
					Bonding wire	0.692	mg			Supplier	Bonding wire			Aluminium (Al)	7429-90-5		0.692	mg			1,000,0
					Encapsulation	128.728	mg			Supplier	Moulding Compound			Silica, vitreous	60676-86-0		102.982	mg			799,99
														Epoxy Cresol Novolak	29690-82-2		9.011	mg			70,000
														Phenol resin	9003-35-4		5.149	mg			39,999
														Biphenyl epoxy resin	85954-11-6		7.724	mg			60,002
														Antimony Trioxide	1309-64-4		1.545	mg			12,002
										JIG I	Brominated Flame Ret			Brominated Epoxy Resin	40039-93-8		1.931	mg			15,001
														Carbon Black	1333-86-4		0.386	mg			2,999
					Finishing	1.493	mg			Supplier	Connection coating			Tin (Sn)	7440-31-5		1.493	mg			1,000,0