Material Composition Declaration

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

Supplier Information

Company Name *	Company Unique ID	Unique ID Authority	**Response Date ***	Response Document ID	
ST Microelectronics			**N/A**		
Contact Name *	Title - Contact	**Phone - Contact ***	**Email - Contact ***		
Authorized Representative *	Title - Representative	**Phone - Representative ***	**Email - Representative** *	Supplier Comments or URL for Additional Information	
GIANFRANCO SANTANGELO	APM MD CHAMPION	**N/A**	**N/A**		

	Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	**Weight ***	UOM	Unit Type
		STPS3L60U	HBZG*Z67Q81U	2010-10-04	A	BO2A	107	mg	Each
	Alternate Recommendation	SMB CLIP (SOD 6)			Alternate Item Comments	ECOPACK2/ROHS:ST internal reference CD0025709			

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
Matte Tin (Sn) - annealed	**CU Alloy**	**1**	**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"

Save the fields in this form to a file [Export Data] Import fields from a file into this form [Import Data] Locked

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 *	3 - Item(s) does not contain RoHS restricted substances per the definition above except for lead in solders and selected exemptions, if any	**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	Gianfranco Santangelo Digitally signed by Gianfranco Santangelo DN: cn=Gianfranco Santangelo, o=IMS APM, ou=Quality and Reliability, email=gianfranco.santangelo@st.com, c=IT Date: 2010.10.04 13:53:20 +02'00'	

*** Required Field**

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 -	Tolerance +	PPM
HBZG*Z67Q81U	Silicon Die	1.477	mg	Supplier	Silicon die	Silicon	7440-21-3		1.448	mg			980,36
				Supplier	die metallization	Aluminium(Al)	7429-90-5		0.008	mg			5,416
						Nickel (Ni)	7440-02-0		0.014	mg			9,479
						Gold (Au)	7440-57-5		0.006	mg			4,062
						Titanium (Ti)	7440-32-6		0.001	mg			677
	Leadframe	36.705	mg	supplier	alloy	Copper (Cu)	7440-50-8		36.668	mg			998,99
						Phosphorus (P)	7723-14-0		0.037	mg			1,008
	Leadframe coatin	0.619	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.614	mg			991,92
						Phosphorus (P)	7723-14-0		0.005	mg			8,078
	Die Attach	0.982	mg	A	Lead/Lead Compound	Lead (Pb)	7439-92-1	7a. Lead	0.918	mg			934,82
				supplier	soft solder	Silver (Ag)	7440-22-4		0.015	mg			15,275
						Tin (Sn)	7440-31-5		0.049	mg			49,898
	Bonding wire	18.33	mg	Supplier	Bonding wire	Copper (Cu)	7440-50-8		18.33	mg			1,000,0
	Encapsulation	47.729	mg	supplier	Moulding Compound	Silica, vitreous	60676-86-0		36.274	mg			759,99
						Phenol resin	9003-35-4		2.864	mg			60,006
						Carbon black	1333-86-4		0.382	mg			8,004
						Epoxy Cresol Novolak	29690-82-2		4.868	mg			101,99
						Metal hydroxide	proprietary		3.341	mg			69,999
	Finishing	1.158	mg	supplier	connection coating	Tin (Sn)	7440-31-5		1.158	mg			1,000,0

*** Required Field**