



# 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 <a href="http://www.ipc.org/IPC-175x">http://www.ipc.org/IPC-175x</a>	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat
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## Supplier Information

<b>Company Name *</b> ST MICROELECTRONICS	Company Unique ID	Unique ID Authority	<b>Response Date *</b> N/A	Response Document ID				
<b>Contact Name *</b>	Title - Contact	<b>Phone - Contact *</b>	<b>Email - Contact *</b>	Duplicate Contact -> Authorized Representative				
<b>Authorized Representative *</b> GIUSEPPE VITALI PALMA	Title - Representative APM MD CHAMPION	<b>Phone - Representative *</b> N/A	<b>Email - Representative *</b> N/A	Supplier Comments or URL for Additional Information				
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	<b>Weight *</b>	UOM	Unit Type
	STPS2545CT	HSDZ*Z06S02Y	2011-10-12	A	SH1A	1,950	mg	Each
Alternate Recommendation	PACKAGE: TO 220 AB NON IS			Alternate Item Comments	ECOPACK2/ROHS; BSA: CD00278524			

## 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
<b>Matte Tin (Sn) - annealed</b>	<b>CU Alloy</b>	<b>Not Applicable</b>	C	seconds	

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 \*

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

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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

	Item/SubItem Name		Homogeneous Material	Weight	Unit of Measure		Level	Substance Category		Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM	
															-	+		
+I	-I	HSDZ*Z06S02Y	+M -M	Silicon Die	17.628	mg	+C -C	Supplier	Silicon die	+S -S	Silicon	7440-21-3		16.631	mg			943,44
									die metallization	+S -S	Aluminium(Al)	7429-90-5		0.852	mg			48,332
										+S -S	Titanium (Ti)	7440-32-6		0.008	mg			454
										+S -S	Nickel (Ni)	7440-02-0		0.113	mg			6,410
										+S -S	(Gold (Au))	7440-57-5		0.024	mg			1,361
			+M -M	Leadframe	1,285.30	mg	+C -C	supplier	alloy	+S -S	Copper (Cu)	7440-50-8		1,283.63	mg			998,70
										+S -S	Iron (Fe)	7439-89-6		1.285	mg			1,000
										+S -S	Iron Phosphide (FeP)	26508-33-8		0.386	mg			300
			+M -M	Leadframe coating	0.544	mg	+C -C	supplier	coating	+S -S	Nickel (Ni)	7440-02-0		0.503	mg			924,63
										+S -S	Phosphorus (P)	12185-10-3		0.041	mg			75,368
			+M -M	Die Attach	5.426	mg	+C -C	JIG R	glue	+S -S	Lead (Pb)	7439-92-1		5.181	mg			954,84
										+S -S	Silver (Ag)	7440-22-4		0.136	mg			25,065
										+S -S	Tin (Sn)	7440-31-5		0.109	mg			20,088
			+M -M	Encapsulation	632.302	mg	+C -C	supplier	Moulding Compound	+S -S	Epoxy resin	29690-82-2		126.46	mg			199,99
										+S -S	Silica, vitreous	60676-86-0		402.777	mg			637,00
										+S -S	phenolic resin	9003-35-4		63.23	mg			100,00
										+S -S	metal hydroxide	Proprietary		37.938	mg			60,000
										+S -S	carbon black	1333-86-4		1.897	mg			3,000
			+M -M	Finishing	8.793	mg	+C -C	supplier	connection coating	+S -S	Tin (Sn)	7440-31-5		8.793	mg			1,000,0