



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 AMS/IPD 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
	STPS1045DEETR	7RHM*ZA1S15S	2012-06-18	A	Z40A	34	mg	Each
Alternate Recommendation	Package: QFN < 5X5			Alternate Item Comments	ECOPACK2/ROHS BSA REF: CD00309535			

Manufacturing Process Information

Terminal Plating / Grid Array Material Matte Tin (Sn)	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' 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

+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
																			-	+	
		7RHM*ZA1S15S			Integrated circuit	2.147	mg			Supplier	Silicon die			Silicon (Si)	7440-21-3		2.097	mg			976,68
										Supplier	Die metallization			Aluminium (Al)	7429-90-5		0.004	mg			1,863
														Titanium (Ti)	7440-32-6		0.001	mg			466
														Gold (Au)	7440-57-5		0.004	mg			1,863
														Nickel (Ni)	7440-02-0		0.02	mg			9,315
										Supplier	Die coating			Esterified polyamid	Proprietary		0.018954	mg			8,828
														Dimethacrylate de 3,6,9	109-17-1		0.002106	mg			981
					Leadframe	15.189	mg			Supplier	Frame alloy			Copper (Cu)	7440-50-8		14.636	mg			963,59
														Iron (Fe)	7439-89-6		0.344	mg			22,648
														Zinc (Zn)	7440-66-6		0.018	mg			1,185
														Iron Phosphide (Fe2P)	1310-43-6		0.021	mg			1,383
										Supplier	Frame coating			Nickel (Ni)	7440-02-0		0.161	mg			10,600
														Phosphorus (P)	12185-10-3		0.009	mg			593
					Die Attach	1.069	mg			JIG R	Lead/Lead Compound			Lead (Pb)	7439-92-1	7a. Lead	0.989	mg			925,16
										Supplier	Soft solder			Silver (Ag)	7440-22-4		0.027	mg			25,257
														Tin (Sn)	7440-31-5		0.053	mg			49,579
					Bonding wire	6.966	mg			Supplier	Bonding wire			Aluminium (Al)	7429-90-5		6.966	mg			1,000,0
					Encapsulation	8.168	mg			Supplier	Moulding Compound			Epoxy Resin - 1	Proprietary		0.245	mg			29,995
														Epoxy Resin - 2	Proprietary		0.245	mg			29,995
														Epoxy Resin - 3	Proprietary		0.245	mg			29,995
														Phenol Resin	Proprietary		0.408	mg			49,951
														Carbon Black	1333-86-4		0.163	mg			19,956
														Silica (SiO2)	60676-86-0		6.862	mg			840,10

+M	-M	Finishing	0.461	mg	+C	-C	Supplier	Connection coating	+S	-S	Tin (Sn)	7440-31-5		0.461	mg			1,000,0
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