



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 * N/A	Response Document ID				
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *	<input type="button" value="Duplicate Contact -> Authorized Representative"/>				
Authorized Representative * GIUSEPPE VITALI PALMA	Title - Representative AMS & IPD MD CHAMPION	Phone - Representative * N/A	Email - Representative * N/A	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
	STP4CMPQTR	ENF0*UQ34J31	2012-08-29	A	Z7GA	8.3	mg	Each
Alternate Recommendation	PACKAGE:VFQFPN 20L 3.2x1			Alternate Item Comments	ECOPACK2/ROHS; BSA: CD00194597			

Manufacturing Process Information

Terminal Plating / Grid Array Material Nickel/Palladium/Gold (Ni/Pd/Au)	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

		Item/SubItem Name			Homogeneous Material	Weight	Unit of Measure			Level	Substance Category			Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance		PPM
+I	-I		+M	-M				+C	-C			+S	-S						-	+	
+I	-I	ENF0*UQ34J31	+M	-M	Silicon Die	1.776	mg	+C	-C	Supplier	Silicon Die	+S	-S	Si	7440-21-3		1.761	mg			991,55
								+C	-C	Supplier	Die front side coating	+S	-S	Gamma-butyrolactone	96-48-0		0.01	mg			5,631
												+S	-S	Polyhydroxyamide	55295-98-2		0.005	mg			2,815
			+M	-M	Leadframe	1.444	mg	+C	-C	Supplier	Alloy	+S	-S	Cu	7440-50-8		1.433	mg			992,38
												+S	-S	Cr	7440-47-3		0.004	mg			2,770
												+S	-S	Sn	7440-31-5		0.004	mg			2,770
												+S	-S	Zn	7440-66-6		0.003	mg			2,078
			+M	-M	L.F. coating	0.022	mg	+C	-C	Supplier	Coating	+S	-S	Nickel	7440-02-0		0.02	mg			909,09
												+S	-S	Pd	7440-05-3		0.001	mg			45,455
												+S	-S	Au	7440-57-5		0.001	mg			45,455
			+M	-M	Die Attach	0.243	mg	+C	-C	supplier	Glue	+S	-S	Aluminum oxide	1344-28-1		0.085	mg			349,79
												+S	-S	Diethylene glycol monoether	112-15-2		0.073	mg			300,41
												+S	-S	Epoxy resin 1	Proprietary		0.049	mg			201,64
												+S	-S	Epoxy resin 2	Proprietary		0.024	mg			98,765
												+S	-S	Amine	67924-34-9		0.012	mg			49,383
			+M	-M	Bonding wire	0.182	mg	+C	-C	supplier	Bonding wire	+S	-S	Gold	7440-57-5		0.182	mg			1,000,0
			+M	-M	Encapsulation	4.633	mg	+C	-C	supplier	Molding compound	+S	-S	Silica fused	60676-86-0		4.156	mg			897,04
												+S	-S	Epoxy resin	Proprietary		0.236	mg			50,939
												+S	-S	Phenol resin	Proprietary		0.236	mg			50,939
												+S	-S	Carbon black	1333-86-4		0.005	mg			1,079