



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 *					
Authorized Representative * GIUSEPPE VITALI PALMA	Title - Representative APM 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
	M41T82SM6E	BZZM*B6LA82S	2012-02-10	A	BO2A	80	mg	Each
Alternate Recommendation	PACKAGE: SO 08 .15 JEDEC			Alternate Item Comments	ECOPACK1/ROHS; BSA:CD00215542			

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	
											-	+		
BZZM*B6LA82S	Silicon die	3.71	mg	Supplier	Silicon die	Silicon (Si)	7440-21-3		3.676	mg			990,83	
					Supplier	Die metallization	Aluminium (Al)	7429-90-5		0.001	mg			270
					Supplier	Die coating	Gamma-butyrolactone	96-48-0		0.022	mg			5,930
							Polyhydroxyamide	55295-98-2		0.01	mg			2,695
							Alcoxysilane	Proprietary		0.001	mg			270
							Leadframe	29.894	mg	supplier	Frame alloy	Copper (Cu)	7440-50-8	29.711
							Iron (Fe)	7439-89-6	0.014	mg			468	
							Iron Phosphide (FeP)	26508-33-8	0.025	mg			836	
				supplier	Frame coating	Nickel (Ni)	7440-02-0		0.134	mg	0		4,483	
							Palladium (Pd)	7440-05-3	0.005	mg			167	
							Gold (Au)	7440-57-5	0.005	mg			167	
Die Attach	0.552	mg	supplier	Glue	Silver (Ag)	7440-22-4		0.413	mg				748,18	
					Epoxy Cresol Novolak	29690-82-2		0.137	mg			248,18		
					1-isopropyl-2,2-dimethyl	6846-50-0		0.002	mg			3,623		
Bonding wire	0.092	mg	Supplier	Bonding wire	Gold (Au)	7440-57-5		0.092	mg			1,000,0		
Encapsulation	45.752	mg	supplier	Moulding Compound	Epoxy Cresol Novolak	29690-82-2		4.575	mg				99,996	
					phenol resin	9003-35-4		2.288	mg			50,009		
					Carbon Black	1333-86-4		0.458	mg			10,010		
					Silica, vitreous	60676-86-0		36.601	mg			799,98		
					Antimony Trioxide	1309-64-4		0.915	mg			19,999		
					Brominated epoxy resin	68928-70-1		0.915	mg			19,999		