



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
	LM224WDT	LDK7*0324AD6	2012-10-05	A	BO2A	135.2	mg	Each
Alternate Recommendation	PACKAGE: SO 14 .15 TO JEDE		Alternate Item Comments		ECOPACK2/ROHS BSA REF: CD00337301			

Manufacturing Process Information

Terminal Plating / Grid Array Material Matte Tin (Sn) - annealed	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"

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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
																			-	+	
		LDK7*0324AD6			Silicon Die	1.722	mg			Supplier	Silicon die			Silicon	7440-21-3		1.721	mg			999,41
										Supplier	Die metallization			Aluminium(Al)	7429-90-5		0.001	mg			581
					Leadframe	36.443	mg			Supplier	Alloy			Copper (Cu)	7440-50-8		33.914	mg			930,60
														Iron (Fe)	7439-89-6		0.816	mg			22,391
														Zinc (Zn)	7440-66-6		0.042	mg			1,152
														Iron Phosphide (FeP)	26508-33-8		0.029	mg			796
										Supplier	Coating			Silver (Ag)	7440-22-4		1.642	mg			45,057
					Die Attach	0.767	mg			Supplier	Glue			Silver (Ag)	7440-22-4		0.698	mg			910,03
														acrylate	Proprietary		0.038	mg			49,544
														Methacrylate	Proprietary		0.031	mg			40,417
					Bonding wire	0.077	mg			Supplier	Bonding wire			Copper (Cu)	7440-50-8		0.077	mg			1,000,0
					Encapsulation	94.905	mg			Supplier	Moulding Compound			Silica, vitreous	60676-86-0		83.232	mg			877,00
														Epoxy resin A	EC 413-900		3.796	mg			39,998
														Epoxy resin B	29690-82-2		3.796	mg			39,998
														phenol resin	Proprietary		2.847	mg			29,998
														carbon black	1333-86-4		0.285	mg			3,003
														additive	Proprietary		0.949	mg			9,999
					Finishing	1.286	mg			Supplier	Connection coating			Tin (Sn)	7440-31-5		1.286	mg			1,000,0