

 <small>ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES®</small>		Material Composition Declaration <small>© Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions.</small>		<small>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.</small> 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			
Supplier Information										
Company Name * Cypress Semiconductor Corp		Company Unique ID CYPRESS		Unique ID Authority		Response Date * 2009-05-13		Response Document ID		
Contact Name * Richard Oshiro		Title - Contact QA Engrg Director		Phone - Contact * 408/943-2102		Email - Contact * rgo@cypress.com		Duplicate Contact -> Authorized Representative		
Authorized Representative * Glorioso Lutrinia		Title - Representative EH & S Manager Sr.		Phone - Representative * 632 8128161		Email - Representative * lge@cypress.com		Supplier Comments or URL for Additional Information http://app.cypress.com/portal/server.pt?space=Community		
Requester Item Number		Mfr Item Number		Mfr Item Name		Effective Date		Version		
		TSOP II 32		TSOP II 32		2009-05-13		OSE Taiwan		
Alternate Recommendation						Alternate Item Comments		Package QTP No. 060901		
Manufacturing Process Information										
Terminal Plating / Grid Array Material Nickel/Palladium/Gold (Ni/Pd/Au)			Terminal Base Alloy CU Alloy		J-STD-020 MSL Rating 3		Peak Process Body Temperature 260 C		Max Time at Peak Temperature 20 seconds	
									Number of Reflow Cycles 3	
Comments										
Compliant to RoHS requirements										

RoHS Material Composition Declaration

Declaration Type *Detailed

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

Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2002/95/EC and implemented by the laws of the European Union member states) of the part identified on this form contains lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a "RoHS restricted substance") in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance in excess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form 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. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard Terms and Conditions of Sale applicable to such part shall apply.

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					-	+	
Lead frame							Base Material		109.3	mg	Copper		7440-50-8		106	mg		213,55
							Supplier			Nickel		7440-02-0		3.3	mg		6,605	
Leadfinish							External Plating		0.1	mg	Nickel		7440-02-0		0.1	mg		195
							Supplier			Palladium		7440-05-3		0	mg		4	
							Supplier			Gold		7440-57-5		0	mg		2	
Die Attach							Adhesive		0.7	mg	Acrylic Resin		Trade Secret		0.1	mg		119
							Supplier			Polybutadiene derivative		Trade Secret		0.038	mg		77	
							Supplier			Butadiene copolymer		Trade Secret		0.0069	mg		14	
							Supplier			Epoxy resin		Trade Secret		0.01388	mg		28	
							Supplier			Acrylate		Trade Secret		0.027776	mg		56	
							Supplier			Peroxide		Trade Secret		0.003472	mg		7	
							Supplier			Additive		Trade Secret		0.010416	mg		21	
							Supplier			Silver		7440-22-4		0.5	mg		1,079	
Die							Silicon Die		9.5	mg	Silicon		7440-21-3		9.5	mg		19,114
Goldwire							Interconnect		1	mg	Gold		7440-57-5		1	mg		1,974
Mold Compound							Encapsulation		375.9	mg	Phenol Resin		Trade Secret		15	mg		30,286
							Supplier			Epoxy Resin		Trade Secret		16.9	mg		34,072	
							Supplier			Silica		60676-86-0		338.3	mg		681,43	
							Supplier			Aromatic phosphate		Trade Secret		4.9	mg		9,843	
							Supplier			Carbon Black		1333-86-4		0.8	mg		1,514	