



96 - BGA (5.5 x 13.5 mm) Pb-Free Package

PACKAGE MATERIAL DECLARATION DATASHEET

Cypress Package Code	BP	Body Size (mil/mm)	5.5 x 13.5 mm
Package Weight – Site 1	165.0001 mg	Package Weight – Site 2	N/A

SUMMARY

The 96- BGA Pb-Free package is compliant to RoHS. Cypress Ordering Part Numbers containing an “X” (e.g. CY7C1328G-133AXI, CY2308SXC-1HT) meet the Directive 2002/95/EC (RoHS) requirement.

ASSEMBLY Site 1 – Package Qualification Report #s 044004, 065003 (Note 1)

I. DECLARATION OF PACKAGED UNITS

A. BANNED SUBSTANCES

Materials from Level A of the EIA/JIG/JGPSSI/EICTA Material Composition Declaration Guide and EU RoHS. Listed in the table below are materials that are neither contained nor intentionally added to this product.

Substances / Compounds	Weight by mg	PPM	Analysis Report (Note 2)
Cadmium and Cadmium Compounds	0	< 5.0	CoA-BP96-G
Hexavalent Chromium and its Compounds	0	< 5.0	
Lead and Lead Compounds	0	< 5.0	
Mercury and Mercury Compounds	0	< 5.0	
Polybrominated Biphenyls (PBB)	0	< 5.0	
Polybrominated Diphenylethers (PBDE)	0	< 5.0	
Asbestos	0	0	As per MSDS
Azo colorants	0	0	As per MSDS
Ozone Depleting Substances	0	0	As per MSDS
Polychlorinated Biphenyls (PCBs)	0	0	As per MSDS
Polychlorinated Napthalenes	0	0	As per MSDS
Radioactive Substances	0	0	As per MSDS
Shortchain Chlorinated Paraffins	0	0	As per MSDS
Tributyl Tin (TBT) and Triphenyl Tin (TPT)	0	0	As per MSDS
Tributyl Tin Oxide (TBTO)	0	0	As per MSDS
Formaldehyde	0	0	As per MSDS

Note 1: Qualification reports are available at www.cypress.com. Access them by doing a Search on the Report #.

Note 2: Report available from Cypress Sales Offices or Distributors.

Note 3: Materials/substances not declared in Section I-A and I-B of this document are considered “non-existent in the product”. In order to report exactly 100% material composition, some numbers were rounded to the nearest 0.01 percent. Cypress Semiconductor material information are calculated using MSDS, Material Analysis Reports and Cypress Assembly sites information

Note 4: Actual testing performed on package family basis. Engineering calculations were applied to derive individual package data.

B. MATERIAL COMPOSITION (Note 3)

Material	Purpose of Use	Substance Composition	CAS Number	Weight by mg	% weight of substance per Homogenous material	PPM	% weight of substance per package
Substrate	Base Material	SiO2	60676-86-0	4.9885	11.0000%	30,233	3.0233%
		Acrylic	29690-82-2	4.5350	10.0000%	27,485	2.7485%
		Epoxy	68541-56-0	3.6280	8.0000%	21,988	2.1988%
		Bisphenol	13676-54-5	6.8025	15.0000%	41,227	4.1227%
		Triazol	25722-66-1	7.9363	17.5000%	48,098	4.8098%
		Cu	7440-50-8	16.5301	36.4500%	100,182	10.0182%
		Ni	7440-02-0	0.6803	1.5000%	4,123	0.4123%
		Au	7440-57-5	0.2494	0.5500%	1,512	0.1512%
Solder Ball	External Plating	Sn	7440-31-5	32.4127	95.5000%	196,441	19.6441%
		Ag	7440-22-4	1.3576	4.0000%	8,228	0.8228%
		Cu	7440-50-8	0.1697	0.5000%	1,028	0.1028%
Die Attach	Adhesive	Ag	7440-22-4	3.4656	76.0000%	21,004	2.1004%
		Epoxy Resin	-----	0.2508	5.5000%	1,520	0.1520%
		Functionalized Ester	-----	0.2508	5.5000%	1,520	0.1520%
		Diester	-----	0.5928	13.0000%	3,593	0.3593%
Die	Circuit	Si	7440-21-3	3.9300	100.0000%	23,818	2.3818%
Wire	Interconnect	Au	7440-57-5	3.2500	100.0000%	19,697	1.9697%
Mold Compound	Encapsulation	Silica Fused	60676-86-0	66.5730	90.0000%	403,473	40.3473%
		Epoxy Resin(1)	93705-66-9	2.9588	4.0000%	17,932	1.7932%
		Epoxy Resin(2)	Proprietary	1.4794	2.0000%	8,966	0.8966%
		Phenol Resin	106466-55-1	2.9588	4.0000%	17,932	1.7932%

Package Weight (mg): **165.0001**

% Total: **100.0000**

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Note 4: Actual testing performed on package family basis. Engineering calculations were applied to derive individual package data.

II. DECLARATION OF PACKAGING / INDIRECT MATERIALS

Type	Material	Lead PPM	Cadmium PPM	Cr VI PPM	Mercury PPM	PBB PPM	PBDE PPM	Analysis Report (Note2)
Tape & Reel	Cover tape	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-COVT-R
	Carrier tape	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-CART-R
	Plastic Reel	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-PLRL-R
Tray	Tray	< 2.0	< 2.0	< 2.0	< 2.0	-----	-----	CoA-TRAY-R
Others	Shielding bag	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-SBAG -R
	Moisture Barrier bag	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-MBBG-R
	Protective Band	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-PROB-R
	Shipping and Inner Box	< 10.0	< 4.0	< 4.0	< 5.0	-----	-----	CoA-ABOX-R

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Document History Page

Document Title: 96-BGA 5.5X13.5mm PB-Free PMDD
Document Number: 001-04907

Rev.	ECN No.	Orig. of Change	Description of Change
**	398450	GFJ	New Specification.
*A	2568970	HLR	Changed Cypress Logo Added % weight of substance per Homogenous Material and % weight of substance per package on the Material Composition table. Completed the RoHS Substances namely; Lead Cadmium, Mercury, Chromium VI, PBB and PBDE on Declaration of Packaging Indirect Materials table.
*B	2751570	HLR	Updated CAS number of Gold (Au).
		DCON	Removed inactive bookset CML in distribution list.
*C	3001222	HLR	Changed reference package QTP. Revised the material composition for Mold Compound substances.
*D	3359611	HLR	Updated the material composition table to reflect 4 decimal places on values.

Distribution: WEB

Posting: None

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