

PACKAGE MATERIAL DECLARATION DATASHEET

Cypress Package Code	SY	Body Size (mil/mm)	300 mils
Package Weight – Site 1	849.9800 mg	Package Weight – Site 2	849.9800 mg

SUMMARY

The 28L – SNC 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: Cypress Manufacturing Limited (CML)
Package Qualification Report # 053407, 054502 (See 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-SY28-CML
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” or a natural impurity. In order to report exactly 100% material composition, some numbers were rounded to the nearest 0.01 percent. Cypress Semiconductor PMDD’s are calculated using MSDS, Material Analysis Reports and Cypress Assembly site 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
Leadframe	Base Material	Cu	7440-50-8	294.5289	97.4100	346,513	34.6513
		Fe	7439-89-6	7.2566	2.4000	8,537	0.8537
		P	7723-14-0	0.2117	0.0700	249	0.0249
		Zn	7440-66-6	0.3628	0.1200	427	0.0427
Lead Finish	External Plating	Ni	7440-02-0	0.1930	96.5200	227	0.0227
		Pd	7440-05-3	0.0035	1.7400	4	0.0004
		Au	7440-57-5	0.0035	1.7400	4	0.0004
Die Attach	Adhesive	Ag	7440-22-4	0.1560	78.0000	184	0.0184
		Bismaleimide	Proprietary	0.0220	11.0000	26	0.0026
		Polymer	Proprietary	0.0120	6.0000	14	0.0014
		Methacrylate	Proprietary	0.0040	2.0000	5	0.0005
		Acylate ester	Proprietary	0.0040	2.0000	5	0.0005
		Organic Peroxide	Proprietary	0.0020	1.0000	2	0.0002
Die	Circuit	Si	7440-21-3	3.0000	100.0000	3,529	0.3529
Wire	Interconnect	Au	7440-57-5	1.9000	100.0000	2,235	0.2235
Mold Compound	Encapsulation	Epoxy resin	Proprietary	29.8276	5.5000	35,092	3.5092
		Phenol resin	Proprietary	24.4044	4.5000	28,712	2.8712
		Silica	60676-86-0	488.0880	90.0000	574,235	57.4235

Package Weight (mg): **849.9800**

% Total: **100.0000**

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
Tube	Plastic Tube	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	CoA-PLTB-R
	End Plug	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	CoA-EPLG-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
	Dessicant	< 10.0	< 2.0	< 2.0	< 1.0	< 3.0	< 3.0	CoA-DESS-R
	Bubble Pack	< 2.0	< 2.0	< 2.0	< 2.0	< 100.0	< 90.0	CoA-BUBP-R

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**ASSEMBLY Site 2: Jiangsu Changjiang Electronics Technology (JCET)
Package Qualification Report # 104811/ 104812 (See Note 1)**

I. DECLARATION OF PACKAGED UNITS

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Cadmium and Cadmium Compounds	0	< 5.0	CoA-SY28-JCET
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

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	Plastic Reel	< 2.0	< 2.0	< 2.0	< 2.0	<5.0	<5.0	CoA-PLRL-R
Tube	Plastic Tube	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	CoA-PLTB-R
	End Plug	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	CoA-EPLG-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
	Dessicant	< 10.0	< 2.0	< 2.0	< 1.0	< 3.0	< 3.0	CoA-DESS-R
	Bubble Pack	< 2.0	< 2.0	< 2.0	< 2.0	< 100.0	< 90.0	CoA-BUBP-R

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Document History Page

Document Title: 28L - SNC PB-FREE PACKAGE MATERIAL DECLARATION DATASHEET
Document Number: 001-05620

Rev.	ECN No.	Orig. of Change	Description of Change
**	406190	YXP	New specification.
*A	2521607	HLR	Updated Cypress Logo Added % weight of substance per Homogenous Material and % weight of substance per package on the Material Composition. Completed the RoHS Substances namely; Lead Cadmium, Mercury, Chromium VI, PBB and PBDE on Declaration of Packaging Indirect Materials table DCon: Replace from CML to WEB in the distribution list.
*B	3167770	REYD	Added Assembly Site 2 – JCET
*C	3307433	HLR	Updated the material composition table for Assembly Site 1 and 2 to reflect 4 decimal places on values. Added reference QTP No. 054502 for Assembly Site 1 for Commercial and Industrial devices.
*D	3683405	HLR	Corrected the CAS number of Palladium.
*E	4055064	YUM	Added assembly site name in the Assembly heading. Changed assembly code to Assembly site name.

Distribution: WEB

Posting: None

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