



**4L – LCC (5x3.2 mm)
Pb-Free Package**

PACKAGE MATERIAL DECLARATION DATASHEET

Cypress Package Code	LZ	Body Size (mil/mm)	5 x 3.2 mm
Package Weight – Site 1	57.00000 mg	Package Weight – Site 2	N/A

SUMMARY

The 4L – LCC 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: ECERA Taiwan (ER)
Package Qualification Report # 052701 (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-LZ04-ER
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 Naphthalenes	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

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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
Ceramic	Base Package	Al ₂ O ₃	1344-28-1	22.48858	90.0000%	394,537	39.4537%
		SiO ₂	14808-60-7	1.49924	6.0000%	26,303	2.6303%
		Cr ₂ O ₃	1308-38-9	0.49975	2.0000%	8,768	0.8768%
		Mo	7439-98-7	0.49975	2.0000%	8,768	0.8768%
Fe/Co/Ni Alloy	Base Package	Fe	7439-89-6	7.45094	45.0000%	130,718	13.0718%
		Ni	7440-02-0	4.13941	25.0000%	72,621	7.2621%
		Co	7440-48-4	2.48365	15.0000%	43,573	4.3573%
		Ag	7440-22-4	1.82134	11.0000%	31,953	3.1953%
		Cu	7440-50-8	0.66231	4.0000%	11,619	1.1619%
Plate	Base Package	W	7440-33-7	0.93687	75.0000%	16,436	1.6436%
		Ni	7440-02-0	0.27481	22.0000%	4,821	0.4821%
		Au	7440-57-5	0.03747	3.0000%	657	0.0657%
Fe/Co/Ni Alloy	Lid	Fe	7439-89-6	2.84415	53.0000%	49,897	4.9897%
		Ni	7440-02-0	1.66356	31.0000%	29,185	2.9185%
		Co	7440-48-4	0.85861	16.0000%	15,063	1.5063%
Quartz Crystal	Oscillator	SiO ₂	14808-60-7	0.27223	100.0000%	4,776	0.4776%
Silver Electrode	Electrode	Ag	7440-22-4	0.00815	100.0000%	143	0.0143%
IC Die	Circuit	Si	7440-21-3	8.55878	100.0000%	150,154	15.0154%
Die Attach	Adhesive	Silver powder	7440-22-4	0.00013	74.0000%	2	0.0002%
		Petroleum solvent	Proprietary	0.00001	8.0000%	1	0.0001%
		Silicone resin, Other	Proprietary	0.00003	18.0000%	1	0.0001%
Wire	Interconnect	Au	7440-57-5	0.00023	100.0000%	4	0.0004%

Package Weight (mg): **57.00000**

% 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

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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
Others	Shielding bag	< 2.0	< 2.0	< 2.0	< 2.0	< 5.0	< 5.0	CoA-SBAG-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
	Bubble Pack	< 2.0	< 2.0	< 2.0	< 2.0	< 100.0	< 90.0	CoA-BUBP-R

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Document History Page

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Rev.	ECN No.	Orig. of Change	Description of Change
**	4312711	JARG	New Release
*A	5686414	MRB	Changed Cypress Logo
		MQJ	Removed Distribution and Posting from the document history page.

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