



52L-PQFP (10x10 mm) Pb-Free Package

PACKAGE MATERIAL DECLARATION DATASHEET (PMDD)

Cypress Package Code	NZ	Body Size (mil/mm)	10 x 10 mm
Package Weight – Site 1	488 mg	Package Weight – Site 2	N/A

SUMMARY

The 52L- PQFP 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 034503 (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-NZ52-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” 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	PPM	%
Leadframe	Base Material	Cu	7440-50-8	103.21	211,500	21.15%
		Ni	7440-02-0	3.22	6,600	0.66%
		Si	7440-21-3	0.68	1,400	0.14%
		Mg	7439-95-4	0.15	300	0.03%
		Ag	7440-22-4	4.98	10,200	1.02%
Leadfinish	External Plating	Sn	7440-31-5	10.39	21,300	2.13%
Die Attach	Adhesive	Ag	7440-22-4	3.12	6,400	0.64%
		Epoxy Resin	9003-36-5	0.49	1,000	0.10%
		T-Butyphenyl Glycidyl Ether	3101-60-8	0.24	500	0.05%
		Phenolic Resin	9003-35-5	0.10	200	0.02%
		Epoxy Silane	2530-83-8	0.05	100	0.01%
Die	Circuit	Si	7440-21-3	32.26	66,100	6.61%
Wire	Interconnect	Au	7429-90-5	3.42	7,000	0.70%
Mold Compound	Encapsulation	Silica Fused	60676-86-0	282.41	578,700	57.87%
		Epoxy Resin	-----	24.40	50,000	5.00%
		Phenol Resin	-----	17.91	36,700	3.67%
		Carbon Black	1333-86-4	0.98	2,000	0.20%

Package Weight (mg): **% Total:**

II. DECLARATION OF PACKAGING / INDIRECT MATERIALS

Type	Material	Cadmium PPM	Mercury PPM	Analysis Report (Note2)
Tape & Reel	Cover tape	< 5.0	< 5.0	CoA-COVT-G CoA-COVT-R
	Carrier tape	< 5.0	< 5.0	CoA-CART-G CoA-CART-R
	Plastic Reel	< 5.0	< 5.0	CoA-PLRL-G CoA-PLRL-R
Tray	Tray	< 5.0	< 5.0	CoA-TRAY-G CoA-TRAY-R
Tube	Plastic Tube	N/A	N/A	N/A
	End Plug	N/A	N/A	N/A
Others	Moisture Barrier bag	< 5.0	< 5.0	CoA-MBBG-G CoA-MBBG-R
	Shielding bag	< 5.0	< 5.0	CoA-SBAG-G CoA-SBAG-R
	Protective Band	N/A	N/A	N/A
	Shipping and inner/ pizza box	< 5.0	< 5.0	CoA-ABOX-R
	Desiccant	< 5.0	< 5.0	CoA-DESS-G CoA-DESS-R
	Bubble Pack	< 5.0	< 5.0	CoA-BUBP-G CoA-BUBP-R

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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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