

PART INFORMATION

Mfg Item Number	MCIMX233DJM4B
Mfg Item Name	MAPBGA 169 11*11*1.4P0.8

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2016-05-10
Response Document ID	5381K50001S026A1.21
Contact Name	Freescale Semiconductor Inc
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DECLARATION

EU RoHS	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e1
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MCIMX233DJM4B
Mfg Item Name	MAPBGA 169 11*11*1.4P0.8
Version	ALL
Weight	0.280400
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	260 C
Max Time at Peak Temperature	40 seconds
Number of Processing Cycles	3

RoHS	
RoHS Directive	2011/65/EU
RoHS Definition	RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) of 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 of Cadmium
RoHS Legal Definition	Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part(s) 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 below. If a homogeneous material within the part(s) 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(s), 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(s), 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 Suppliers liability and the Companys 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 Suppliers Standard Terms and Conditions of Sale applicable to such part(s) shall apply.
RoHS Declaration	1 - Item(s) do not contain RoHS restricted substances per the definition above
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
List of Freescale Accepted Exemptions	<p>6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight</p> <p>6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight</p> <p>6(c) : Copper alloy containing up to 4% lead by weight</p> <p>7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)</p> <p>7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications</p> <p>7(c)-I : Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound</p> <p>7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher</p> <p>7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC</p> <p>7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors</p> <p>15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages</p>

MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%	ARTICLEPPM	ARTICLE%
Non-Conductive Epoxy/Adhesive	0.0026						g				
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.000195	g	75000	7.5	895	0.0695
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.00052	g	200000	20	1854	0.1854
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.000195	g	75000	7.5	895	0.0695
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.00052	g	200000	20	1854	0.1854
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.00117	g	450000	45	4172	0.4172
Die Encapsulant	0.1352						g				
Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.00405722	g	30009	3.0009	14469	1.4469
Die Encapsulant		Plastics/polymers	Other Epoxy resins	-		0.00405722	g	30009	3.0009	14469	1.4469
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00040574	g	3001	0.3001	1447	0.1447
Die Encapsulant		Solvents, additives, and other materials	Other organic phosphorous compounds	-		0.00040574	g	3001	0.3001	1447	0.1447
Die Encapsulant		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.0074383	g	55017	5.5017	26527	2.6527
Die Encapsulant		Glass	Silica, amorphous synthetic	112926-00-8		0.11883578	g	878963	87.8963	423824	42.3824
Solder Balls - Lead Free	0.0436						g				
Solder Balls - Lead Free		Metals	Aluminum, metal	7429-90-5		0.00000044	g	10	0.001	1	0.0001
Solder Balls - Lead Free		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.0000218	g	500	0.05	77	0.0077
Solder Balls - Lead Free		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00001308	g	300	0.03	46	0.0046
Solder Balls - Lead Free		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00001308	g	300	0.03	46	0.0046
Solder Balls - Lead Free		Cadmium/Cadmium Compounds	Cadmium	7440-43-9		0.00000087	g	20	0.002	3	0.0003
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.000218	g	5000	0.5	777	0.0777
Solder Balls - Lead Free		Metals	Iron, metal	7439-89-6		0.00000872	g	200	0.02	31	0.0031
Solder Balls - Lead Free		Lead/Lead Compounds	Lead	7439-92-1		0.0000218	g	500	0.05	77	0.0077
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.000436	g	10000	1	1554	0.1554
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.04286577	g	983160	98.316	152873	15.2873
Solder Balls - Lead Free		Metals	Zinc, metal	7440-66-6		0.00000044	g	10	0.001	1	0.0001
Organic Substrate, Halogen-free	0.0821						g				
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.01765314	g	215020	21.502	62956	6.2956
Organic Substrate, Halogen-free		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.0144317	g	175782	17.5782	51468	5.1468
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00124357	g	15147	1.5147	4434	0.4434
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00678064	g	82590	8.259	24182	2.4182
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.01880188	g	229012	22.9012	67053	6.7053
Organic Substrate, Halogen-free		Plastics/polymers	Triazine	25722-66-1		0.00783415	g	95422	9.5422	27939	2.7939
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other Bismateimides	-		0.00783415	g	95422	9.5422	27939	2.7939
Organic Substrate, Halogen-free		Metals	Aluminum Hydroxide	21645-51-2		0.00752077	g	91605	9.1605	26821	2.6821
Silicon Semiconductor Die	0.0149						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000298	g	20000	2	1062	0.1062
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.014602	g	980000	98	52075	5.2075
Bonding Wire, PoCu	0.002						g				
Bonding Wire, PoCu		Metals	Copper, metal	7440-50-8		0.00196199	g	980994	98.0994	6997	0.6997
Bonding Wire, PoCu		Metals	Gold, metal	7440-57-5		0.000002	g	1000	0.1	7	0.0007
Bonding Wire, PoCu		Metals	Palladium, metal	7440-05-3		0.00003601	g	18006	1.8006	128	0.0128

LINKS

MCD LINK	
NXP website	http://www.nxp.com
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
RoHS signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf
China RoHS	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY
REACH signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf
ELV signed letter	http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf
Conflict Minerals statement	http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf
NXP ENVIRONMENTAL INFORMATION	
Environmental Compliance website	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX
FAQ	http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ
Technical Service Request	http://www.nxp.com/support/sales-and-support:SUPPORTHOME
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcdfs/MCIMX233DJM4B_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MCIMX233DJM4B_IPC1752A.xml