

**PART INFORMATION**

Mfg Item Number	MCIMX6G3DVK05AB
Mfg Item Name	MAPBGA 272 9*9*1.23 P0.5

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-02-10
Response Document ID	00MMK00159D012A1.5
Contact Name	Freescale Semiconductor Inc
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URL for Additional Information	www.freescale.com

**DECLARATION**

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

**MANUFACTURING**

Mfg Item Number	MCIMX6G3DVK05AB
Mfg Item Name	MAPBGA 272 9*9*1.23 P0.5
Version	ALL
Weight	0.358200
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	0.0017						g				
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0001275	g	75000	7.5	355	0.0355
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.00034	g	200000	20	949	0.0949
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.0001275	g	75000	7.5	355	0.0355
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.00034	g	200000	20	949	0.0949
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.000765	g	450000	45	2135	0.2135
Solder Balls - Lead Free	0.07						g				
Solder Balls - Lead Free		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.0000455	g	65	0.0065	12	0.0012
Solder Balls - Lead Free		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00000224	g	32	0.0032	6	0.0006
Solder Balls - Lead Free		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00000175	g	25	0.0025	4	0.0004
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00033103	g	4729	0.4729	924	0.0924
Solder Balls - Lead Free		Metals	Iron, metal	7439-89-6		0.00000231	g	33	0.0033	6	0.0006
Solder Balls - Lead Free		Lead/Lead Compounds	Lead	7439-92-1		0.00001883	g	269	0.0269	52	0.0052
Solder Balls - Lead Free		Nickel (external applications only)	Nickel	7440-02-0		0.00000245	g	35	0.0035	6	0.0006
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00064946	g	9278	0.9278	1813	0.1813
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.0689829	g	985470	98.547	192582	19.2582
Solder Balls - Lead Free		Metals	Germanium	7440-56-4		0.00000448	g	64	0.0064	12	0.0012
Die Encapsulant, Halogen-free	0.2269						g				
Die Encapsulant, Halogen-free		Plastics/polymers	Other Epoxy resins	-		0.013614	g	60000	6	3806	3.806
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.002269	g	10000	1	6334	0.6334
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other inorganic compounds.	-		0.004538	g	20000	2	12668	1.2668
Die Encapsulant, Halogen-free		Plastics/polymers	Other phenolic resins	-		0.011345	g	50000	5	31672	3.1672
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.195134	g	860000	86	544784	54.4784
Organic Substrate, Halogen-free	0.0505						g				
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other aromatic amines and their salts	-		0.000015	g	297	0.0297	41	0.0041
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.00050571	g	10014	1.0014	1411	0.1411
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.02351054	g	465555	46.5555	65635	6.5635
Organic Substrate, Halogen-free		Plastics/polymers	Other Epoxy resins	-		0.00215145	g	42603	4.2603	6006	0.6006
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00119705	g	23704	2.3704	3341	0.3341
Organic Substrate, Halogen-free		Metals	Talc	14807-96-6		0.00025467	g	5043	0.5043	710	0.071
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00934169	g	184984	18.4984	26079	2.6079
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.00956202	g	189347	18.9347	26694	2.6694
Organic Substrate, Halogen-free		Glass	Silicon dioxide	7631-86-9		0.00168892	g	33444	3.3444	4715	0.4715
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other Aromatic carbonyl compounds	-		0.00009474	g	1876	0.1876	264	0.0264
Organic Substrate, Halogen-free		Metals	Copper phthalocyanine	147-14-8		0.00000449	g	89	0.0089	12	0.0012
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Quinacridone pigment	1047-16-1		0.00000449	g	89	0.0089	12	0.0012
Organic Substrate, Halogen-free		Solvents, additives, and other materials	3-methoxy-3-methyl-1-butyl acetate	103429-90-9		0.0005429	g	10976	1.0976	1547	0.1547
Organic Substrate, Halogen-free		Plastics/polymers	Epoxy Resin	115254-47-2		0.00161045	g	31890	3.189	4495	0.4495
Organic Substrate, Halogen-free		Solvents, additives, and other materials	1,2,4-Trimethylbenzene	95-63-6		0.00000449	g	89	0.0089	12	0.0012
Bonding Wire, PoCu	0.0014						g				
Bonding Wire, PoCu		Metals	Copper, metal	7440-50-8		0.0013734	g	981000	98.1	3834	0.3834
Bonding Wire, PoCu		Metals	Gold, metal	7440-57-5		0.0000014	g	1000	0.1	3	0.0003
Bonding Wire, PoCu		Metals	Palladium, metal	7440-05-3		0.0000252	g	18000	1.8	70	0.007
Silicon Semiconductor Die	0.0077						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000154	g	20000	2	429	0.0429
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.007546	g	980000	98	21066	2.1066

## LINKS

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

IPC1752 XML LINKS

[http://www.freescale.com/mcdfs/MCIMX6G3DVK05AB\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/MCIMX6G3DVK05AB_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/MCIMX6G3DVK05AB\\_IPC1752A.xml](http://www.freescale.com/mcdfs/MCIMX6G3DVK05AB_IPC1752A.xml)