

**PART INFORMATION**

Mfg Item Number	MCIMX7D3DVK10SC
Mfg Item Name	MAPBGA 488 12*12*1.1P0.4

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-04-04
Response Document ID	00L1K00245D001M1.0
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
Contact Phone	1-800-521-6274
Contact Email	support@freescale.com
Authorized Representative	Daniel Binyon
Representative Title	EPP Customer Response
Representative Phone	512-895-3406
Representative Email	eppanlst@freescale.com
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	MCIMX7D3DVK10SC
Mfg Item Name	MAPBGA 488 12*12*1.1P0.4
Version	ALL
Weight	0.261100
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%
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	589	0.0589
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.007546	g	880000	98	28900	2.89
Organic Substrate, Halogen-free	0.0171						g				
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other acrylates	-		0.00074551	g	43597	4.3597	2855	0.2855
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.00048403	g	28306	2.8306	1853	0.1853
Organic Substrate, Halogen-free		Metals	Chromium, metal	7440-47-3		0	g	0	0	0	0
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.004088	g	239064	23.9064	15656	1.5656
Organic Substrate, Halogen-free		Metals	Cupric oxide	1317-38-0		0.00350974	g	205248	20.5248	13442	1.3442
Organic Substrate, Halogen-free		Metals	Talc	14807-96-6		0.00005811	g	3398	0.3398	222	0.0222
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00006902	g	4036	0.4036	264	0.0264
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other organic compounds	-		0.00000964	g	564	0.0564	36	0.0036
Organic Substrate, Halogen-free		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.00376431	g	220135	22.0135	14417	1.4417
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.00394576	g	230746	23.0746	15112	1.5112
Organic Substrate, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.00000964	g	564	0.0564	36	0.0036
Organic Substrate, Halogen-free		Metals	Zinc, metal	7440-66-6		0	g	0	0	0	0
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances	-		0.00011619	g	6795	0.6795	445	0.0445
Organic Substrate, Halogen-free		Solvents, additives, and other materials	3-methoxy-3-methyl-1-butyl acetate	103429-90-9		0.00029041	g	16983	1.6983	1112	0.1112
Organic Substrate, Halogen-free		Pigments and Dyes	Phthalocyanine Blue	57455-37-5		0.00000964	g	564	0.0564	36	0.0036
Non-Conductive Epoxy/Adhesive	0.0014						g				
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other acrylates	-		0.0000966	g	69000	6.9	369	0.0369
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other Epoxy resins	-		0.0000056	g	4000	0.4	21	0.0021
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0000966	g	69000	6.9	369	0.0369
Non-Conductive Epoxy/Adhesive		Glass	Silicon dioxide	7631-86-9		0.00028	g	200000	20	1072	0.1072
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other Bismaleimides	-		0.00028	g	200000	20	1072	0.1072
Non-Conductive Epoxy/Adhesive		Glass	Silylated silica	68909-20-6		0.00063	g	450000	45	2412	0.2412
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Other organosilane compounds	-		0.0000056	g	4000	0.4	21	0.0021
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	1H-imidazole-1-propanenitrile, 2-ethyl-4-methyl-	23996-25-0		0.0000056	g	4000	0.4	21	0.0021
Bonding Wire, Other	0.0001						g				
Bonding Wire, Other		Solvents, additives, and other materials	Calcium	7440-70-2		0	g	20	0.002	0	0
Bonding Wire, Other		Metals	Gold, metal	7440-57-5		0.00009905	g	990480	99.048	379	0.0379
Bonding Wire, Other		Metals	Palladium, metal	7440-05-3		0.00000095	g	9500	0.95	3	0.0003
Solder Balls - Lead Free	0.0296						g				
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00014815	g	5005	0.5005	567	0.0567
Solder Balls - Lead Free		Nickel (external applications only)	Nickel	7440-02-0		0.00001483	g	501	0.0501	56	0.0056
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00035558	g	12013	1.2013	1361	0.1361
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.02928144	g	982481	98.2481	111380	11.138
Die Encapsulant, Halogen-free	0.2052						g				
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.001026	g	5000	0.5	3929	0.3929
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.0080028	g	39000	3.9	30650	3.065
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.1838592	g	896000	89.6	704189	70.4189
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.012312	g	60000	6	47154	4.7154

## 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/MCIMX7D3DVK10SC\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/MCIMX7D3DVK10SC_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/MCIMX7D3DVK10SC\\_IPC1752A.xml](http://www.freescale.com/mcdfs/MCIMX7D3DVK10SC_IPC1752A.xml)