

PART INFORMATION

Mfg Item Number	MCIMX357DJQ5C
Mfg Item Name	MAPBGA 400 17*17*0.8P0.8

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2014-11-24
Response Document ID	5284K10745D080A1.12
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
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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	MCIMX357DJQ5C
Mfg Item Name	MAPBGA 400 17*17*0.8P0.8
Version	ALL
Weight	0.838700
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%
Epoxy Die Attach	0.0043						g				
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.00316842	g	736842	73.6842	3777	0.3777
Epoxy Die Attach		Plastics/polymers	Proprietary Material-Di-ester resin	-		0.00045263	g	105263	10.5263	539	0.0539
Epoxy Die Attach		Solvents, additives, and other materials	Proprietary Material-Functionalized Ester	-		0.00045263	g	105263	10.5263	539	0.0539
Epoxy Die Attach		Plastics/polymers	Other Non-halogenated Epoxy resins	-		0.00022632	g	52632	5.2632	269	0.0269
Silicon Semiconductor Die	0.0335						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.00067	g	20000	2	798	0.0798
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.03283	g	980000	98	39143	3.9143
Organic Substrate, Halogen-free	0.294						g				
Organic Substrate, Halogen-free		Pigments and Dyes	Proprietary Material-Other azo dyes	-		0.00009555	g	325	0.0325	113	0.0113
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.01231566	g	41890	4.189	14684	1.4684
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.15976784	g	543428	54.3428	190494	19.0494
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00298351	g	10148	1.0148	3557	0.3557
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other inorganic compounds	-		0.02955317	g	100521	10.0521	35236	3.5236
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00895024	g	30443	3.0443	10671	1.0671
Organic Substrate, Halogen-free		Glass	Proprietary Material-Other glass compounds (without lead, chromium, cadmium or mercury)	-		0.0228829	g	77833	7.7833	27283	2.7283
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.00190953	g	6495	0.6495	2276	0.2276
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other Aromatic carbonyl compounds	-		0.00119335	g	4059	0.4059	1422	0.1422
Organic Substrate, Halogen-free		Plastics/polymers	Other acrylic resins	-		0.00198161	g	6332	0.6332	2219	0.2219
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other aliphatic amine compounds	-		0.0001911	g	650	0.065	227	0.0227
Organic Substrate, Halogen-free		Solvents, additives, and other materials	3-methoxy-3-methyl-1-butyl acetate	103429-90-9		0.00677946	g	23056	2.3056	8082	0.8082
Organic Substrate, Halogen-free		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.04551708	g	154820	15.482	54270	5.427
Solder Balls - Lead Free	0.1034						g				
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00051824	g	5012	0.5012	817	0.0817
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00109648	g	10024	1.0024	1235	0.1235
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.10194528	g	984964	98.4964	121432	12.1432
Bonding Wire, Copper	0.0051						g				
Bonding Wire, Copper		Metals	Copper, metal	7440-50-8		0.004947	g	970000	97	5898	0.5898
Bonding Wire, Copper		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000153	g	30000	3	182	0.0182
Die Encapsulant, Halogen-free	0.3984						g				
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00125337	g	3146	0.3146	1494	0.1494
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.01890209	g	47194	4.7194	22418	2.2418
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.35536363	g	891977	89.1977	423725	42.3725
Die Encapsulant, Halogen-free		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.02298091	g	57683	5.7683	27400	2.74

LINKS

MCD LINK

Freescale website <http://www.freescale.com>

GENERAL ENVIRONMENTAL COMPLIANCE LINKS

RoHS signed letter http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ROHS_Freescale_Response.pdf

China RoHS <http://www.freescale.com/chinarohs>

REACH signed letter http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescale_Response.pdf

ELV signed letter http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescale_Reponse.pdf

Conflict Minerals statement http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_CONFLICT_METAL_Freescale_Response.pdf

FREESCALE ENVIRONMENTAL INFORMATION

EPP website <http://www.freescale.com/epp>

FAQ http://www.freescale.com/webapp/sps/site/overview.jsp?code=ENVIRON_FAQ

Technical Service Request https://www.freescale.com/webapp/servicerequest.create_SR.framework?defaultCategory=Hardware Product Support&defaultTopic=Environmentally Preferred Prod

LINKS TO BLANK IPC1752 FORMS

Blank IPC1752 v1.1 Form http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcdfs/MCIMX357DJQ5C_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MCIMX357DJQ5C_IPC1752A.xml