

PART INFORMATION	
Mfg Item Number	MCIMX6DP4AVT1AA
Mfg Item Name	FC-PBGA 624 21*21*2 P0.8
SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2015-02-18
Response Document ID	00A2K50008S342A1.0
Contact Name	Freescale Semiconductor Inc
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Representative Title	EPP Customer Response
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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	MCIMX6DP4AVT1AA
Mfg Item Name	FC-PBGA 624 21*21*2 P0.8
Version	ALL
Weight	3.344200
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	<p>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.</p>
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
<p>List of Freescale Accepted Exemptions</p> <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. piezoelectric 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%
Bonding Agent	0.0303	Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	69083-19-2	0.013635	g	450000	45		4077	0.4077
Bonding Agent		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7	0.01212	g	400000	40		3624	0.3624
Bonding Agent		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6	0.004545	g	150000	15		1359	0.1359
Solder Balls - Lead Free	0.3172	Metals	Copper, metal	7440-50-8	0.00168885	g	5009	0.5009		475	0.0475
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4	0.00953313	g	30054	3.0054		2850	0.285
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5	0.03067802	g	964937	96.4937		91525	9.1525
Heat Spreader	2.0062	Metals	Copper, metal	7440-50-8	1.98973512	g	991793	98.1793		594999	59.4999
Heat Spreader		Nickel (external applications only)	Nickel	7440-02-0	0.01646488	g	8207	0.8207		4923	0.4923
Underfill	0.012	Solvents, additives, and other materials					g				
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1	0.00006	g	5000	0.5		17	0.0017
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3	0.00006	g	5000	0.5		17	0.0017
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6	0.0018	g	150000	15		538	0.0538
Underfill		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5	0.0012	g	100000	10		359	0.0359
Underfill		Solvents, additives, and other materials	Carbon Black	1333-86-4	0.00006	g	5000	0.5		17	0.0017
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6	0.00036	g	30000	3		107	0.0107
Underfill		Glass	Silica, vitreous	60676-86-0	0.0072	g	600000	60		2152	0.2152
Underfill		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances	-	0.00006	g	5000	0.5		17	0.0017
Underfill		Solvents, additives, and other materials	Proprietary Material-Other aliphatic amine compounds	-	0.0012	g	100000	10		358	0.0358
Gel Die Encapsulant	0.0206	Metals	Aluminum, metal	7429-90-5	0.014832	g	720000	72		4435	0.4435
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-	0.00206	g	100000	10		615	0.0615
Gel Die Encapsulant		Metals	Zinc oxide	1314-13-2	0.003708	g	180000	18		1108	0.1108
Organic Substrate, Halogen-free	0.9169	Metals					g				
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7	0.01502524	g	16387	1.6387		4492	0.4492
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8	0.29396912	g	320612	32.0612		87904	8.7904
Organic Substrate, Halogen-free		Plastics/polymers	Other Epoxy resins	-	0.05425756	g	59175	5.9175		16224	1.6224
Organic Substrate, Halogen-free		Metals	Talc	14807-96-6	0.00172286	g	1879	0.1879		515	0.0515
Organic Substrate, Halogen-free		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6	0.16363673	g	200280	20.028		54912	5.4912
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3	0.19364745	g	211198	21.1198		57905	5.7905
Organic Substrate, Halogen-free		Metals	Silicon dioxide	7631-86-9	0.09497709	g	103585	10.3585		28400	2.84
Organic Substrate, Halogen-free		Metals	Silver, metal	7440-22-4	0.00055381	g	604	0.0604		165	0.0165
Organic Substrate, Halogen-free		Metals	Tin, metal	7440-31-5	0.01781537	g	19430	1.943		5327	0.5327
Organic Substrate, Halogen-free		Metals	Aluminum Hydroxide	21645-51-2	0.06119941	g	66746	6.6746		18300	1.83
Organic Substrate, Halogen-free		Metals	Copper phthalocyanine	147-14-8	0.00009536	g	104	0.0104		28	0.0028
Pb-free Bumped Semiconductor D	0.041	Metals					g				
Pb-free Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0	0.000205	g	5000	0.5		61	0.0061
Pb-free Bumped Semiconductor D		Metals	Silver, metal	7440-22-4	0.00012915	g	3150	0.315		38	0.0038
Pb-free Bumped Semiconductor D		Metals	Tin, metal	7440-31-5	0.00356085	g	86850	8.685		1064	0.1064
Pb-free Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-	0.000369	g	9000	0.9		110	0.011
Pb-free Bumped Semiconductor D		Glass	Silicon, doped	-	0.036736	g	896000	89.6		10984	1.0984

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.pdfChina RoHS <http://www.freescale.com/chinarohs>REACH signed letter http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescale_Response.pdfELV signed letter http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescale_Reponse.pdfConflict 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_FAQTechnical 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/mcds/MCIMX6DP4AVT1AA_IPC1752_v11.xml

http://www.freescale.com/mcds/MCIMX6DP4AVT1AA_IPC1752A.xml