

PART INFORMATION

Mfg Item Number	MCIMX6Q6AVT10ACR
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	2017-10-19
Response Document ID	00A2K00226D003M1.3
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	MCIMX6Q6AVT10ACR
Mfg Item Name	FC-PBGA 624 21*21*2 P0.8
Version	ALL
Weight	3.327500
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%
Pb-free Bumped Semiconductor D	0.0379						g				
Pb-free Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0		0.0001895	g	5000	0.5	56	0.0056
Pb-free Bumped Semiconductor D		Metals	Silver, metal	7440-22-4		0.0001939	g	3150	0.315	35	0.0035
Pb-free Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.00329162	g	88850	8.885	989	0.0989
Pb-free Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0003411	g	8000	0.9	102	0.0102
Pb-free Bumped Semiconductor D		Glass	Silicon, doped	-		0.03395839	g	886000	89.6	10205	1.0205
Gel Die Encapsulant	0.012						g				
Gel Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.0084	g	700000	70	2524	0.2524
Gel Die Encapsulant		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.0012	g	100000	10	360	0.036
Gel Die Encapsulant		Metals	Zinc oxide	1314-13-2		0.0018	g	150000	15	540	0.054
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.00036	g	30000	3	108	0.0108
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Cyclohexanes	70900-21-9		0.00012	g	10000	1	36	0.0036
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl,methyl hydrogen siloxane	68037-59-2		0.00012	g	10000	1	36	0.0036
Underfill	0.012						g				
Underfill		Solvents, additives, and other materials	4,4'-Diamino-3,3'-diethyl-diphenylmethane	19900-65-3		0.00132	g	110000	11	396	0.0396
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1		0.000012	g	1000	0.1	3	0.0003
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3		0.000096	g	8000	0.8	28	0.0028
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.00168	g	140000	14	504	0.0504
Underfill		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.0012	g	100000	10	360	0.036
Underfill		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.000012	g	1000	0.1	3	0.0003
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.00048	g	40000	4	144	0.0144
Underfill		Glass	Silica, vitreous	60676-86-0		0.0072	g	600000	60	2163	0.2163
Bonding Agent	0.0206						g				
Bonding Agent		Solvents, additives, and other materials	Other organic compounds	-		0.0000309	g	1500	0.15	9	0.0009
Bonding Agent		Solvents, additives, and other materials	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8		0.000618	g	3000	0.3	18	0.0018
Bonding Agent		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.011124	g	540000	54	3343	0.3343
Bonding Agent		Solvents, additives, and other materials	Other siloxanes and silicones	-		0.000618	g	30000	3	185	0.0185
Bonding Agent		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.00618	g	300000	30	1857	0.1857
Bonding Agent		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0000412	g	200	0.02	1	0.0001
Bonding Agent		Solvents, additives, and other materials	Dimethyl,methyl hydrogen siloxane	68037-59-2		0.000824	g	40000	4	247	0.0247
Bonding Agent		Solvents, additives, and other materials	Silicic acid sodium salt hydrolysis products with chlorotrimethylsilane and dichloroethenylmethylsil	68584-83-8		0.000927	g	45000	4.5	278	0.0278
Bonding Agent		Glass	Silylated silica	68909-20-6		0.000824	g	40000	4	247	0.0247
Bonding Agent		Metals	Other platinum compounds	-		0.00000618	g	300	0.03	1	0.0001
Organic Substrate	0.9216						g				
Organic Substrate		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.0000553	g	6	0.0006	1	0.0001
Organic Substrate		Metals	Barium sulfate	7727-43-7		0.00378593	g	4108	0.4108	1137	0.1137
Organic Substrate		Metals	Copper, metal	7440-50-8		0.31716589	g	344147	34.4147	95316	9.5316
Organic Substrate		Plastics/polymers	2,2'-(1-methylethylene)bis[4,1-phenyleneoxy]methylene]bisoxirane	1675-54-3		0.00709816	g	7702	0.7702	2133	0.2133
Organic Substrate		Plastics/polymers	Other Epoxy resins	-		0.01430968	g	15527	1.5527	4300	0.43
Organic Substrate		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.00839017	g	41656	4.1656	11537	1.1537
Organic Substrate		Lead/Lead Compounds	Lead	7439-92-1		0.0000461	g	5	0.0005	1	0.0001
Organic Substrate		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.01332449	g	14458	1.4458	4004	0.4004
Organic Substrate		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.02581494	g	28011	2.8011	7758	0.7758
Organic Substrate		Glass	Fibrous-glass-wool	65997-17-3		0.27832228	g	301999	30.1999	83643	8.3643
Organic Substrate		Glass	Silicon dioxide	7631-86-9		0.0689919	g	74861	7.4861	20733	2.0733
Organic Substrate		Metals	Silver, metal	7440-22-4		0.00029583	g	321	0.0321	88	0.0088
Organic Substrate		Metals	Tin, metal	7440-31-5		0.00952381	g	10334	1.0334	2862	0.2862
Organic Substrate		Metals	Aluminum Hydroxide	21645-51-2		0.14396129	g	156208	15.6208	43264	4.3264
Organic Substrate		Metals	Copper phthalocyanine	147-14-8		0.00060549	g	657	0.0657	181	0.0181
Solder Balls - Lead Free	0.3172						g				
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.01441833	g	45455	4.5455	4333	0.4333
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00940308	g	29644	2.9644	2825	0.2825
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.29337859	g	924901	92.4901	88167	8.8167
Cap/Cover	2.0062						g				
Cap/Cover		Metals	Copper, metal	7440-50-8		1.986138	g	990000	99	596910	59.691
Cap/Cover		Nickel (external applications only)	Nickel	7440-02-0		0.020062	g	10000	1	6029	0.6029

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/MCIMX6Q6AVT10ACR_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MCIMX6Q6AVT10ACR_IPC1752A.xml