Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MCIMX6QP6AVT1AB
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	2018-01-08
Response Document ID	00A2K00226D004A1.2
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	MCIMX6QP6AVT1AB
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	6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight 6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight 6(c) : Copper alloy containing up to 4% lead by weight 7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead) 7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications 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 7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher 7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC 7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors 15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages

MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%		ARTICLEPPM	ARTICLE%
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 Cyclosiloxanes	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		0.0000618	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%).	-		0.00000412	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
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		596908	59.6908
Cap/Cover		Nickel (external applications only)	Nickel	7440-02-0		0.020062	g	10000	1		6029	0.6029
Organic Substrate, Halogen-fre	0.9216						g					
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.01361756	g	14776	1.4776		4092	0.4092
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.43502284	g	472030	47.203		130735	13.0735
Organic Substrate, Halogen-fre		Plastics/polymers	Epikote 862	28064-14-4		0.06594417	g	71554	7.1554		19817	1.9817
Organic Substrate, Halogen-fre		Plastics/polymers	Formaldehyde, polymer with 2-methylphenol, glycidyl ether	64425-89-4		0.02109727	g	22892	2.2892		6340	0.634
Organic Substrate, Halogen-fre		Lead/Lead Compounds	Lead	7439-92-1		0.00008018	g	87	0.0087		24	0.0024
Organic Substrate, Halogen-fre		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.0360106	g	39074	3.9074		10822	1.0822
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.22056376	g	239327	23.9327		66285	6.6285
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.0189057	g	20514	2.0514		5681	0.5681
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5		0.00014008	g	152	0.0152		42	0.0042
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Other Aromatic carbonyl compounds	-		0.00218604	g	2372	0.2372		656	0.0656
Organic Substrate, Halogen-fre		Metals	Aluminum Hydroxide	21645-51-2		0.1080318	g	117222	11.7222		32466	3.2466
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		0.00011939	g	3150	0.315		35	0.0035
Pb-free Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.00329162	g	86850	8.685		989	0.0989
Pb-free Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0003411	g	9000	0.9		102	0.0102
Pb-free Bumped Semiconductor D		Glass	Silicon, doped	-		0.03395839	g	896000	89.6		10205	1.0205

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/mcds/MCIMX6QP6AVT1AB_IPC1752_v11.xml

http://www.freescale.com/mcds/MCIMX6QP6AVT1AB_IPC1752A.xml