Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MCIMX6D6AVT10AC
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	00A2K50008S272A1.6
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	MCIMX6D6AVT10AC
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%
Bonding Agent	0.0206						g					
Bonding Agent		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.00927	g	450000	45		2785	0.2785
Bonding Agent		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.00824	g	400000	40		2476	0.2476
Bonding Agent		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6		0.00309	g	150000	15		928	0.0928
Solder Balls - Lead Free	0.3172						g					
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00158885	g	5009	0.5009		477	0.0477
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.00953313	g	30054	3.0054		2864	0.2864
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.30607802	g	964937	96.4937		91984	9.1984
Heat Spreader	2.0062						g					
Heat Spreader		Metals	Copper, metal	7440-50-8		1.98973512	g	991793	99.1793		597986	59.7986
Heat Spreader		Nickel (external applications only)	Nickel	7440-02-0		0.01646488	g	8207	0.8207		4948	0.4948
Underfill	0.012						g					
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1		0.00006	g	5000	0.5		18	0.0018
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3		0.00006	g	5000	0.5		18	0.0018
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.0018	g	150000	15		540	0.054
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		0.00006	g	5000	0.5		18	0.0018
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.00036	g	30000	3		108	0.0108
Underfill		Glass	Silica, vitreous	60676-86-0		0.0072	g	600000	60		2163	0.2163
Underfill		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.00006	g	5000	0.5		18	0.0018
Underfill		Solvents, additives, and other materials	Proprietary Material-Other aliphatic amine compounds	-		0.0012	g	100000	10		360	0.036
Organic Substrate, Halogen-fre	0.9216						g					
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.0170708	g	18523	1.8523		5130	0.513
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.37085461	g	402403	40.2403		111451	11.1451
Organic Substrate, Halogen-fre		Plastics/polymers	Epikote 862	28064-14-4		0.08502036	g	92253	9.2253		25550	2.555
Organic Substrate, Halogen-fre		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.08074598	g	87615	8.7615		24266	2.4266
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Bentonite	1302-78-9		0.00005437	g	59	0.0059		16	0.0016
Organic Substrate, Halogen-fre		Metals	Talc	14807-96-6		0.00195748	g	2124	0.2124		588	0.0588
Organic Substrate, Halogen-fre		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.01219185	g	13229	1.3229		3663	0.3663
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.17981798	g	195115	19.5115		54039	5.4039
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.10815898	g	117360	11.736		32504	3.2504
Organic Substrate, Halogen-fre		Metals	Silver, metal	7440-22-4		0.0002645	g	287	0.0287		79	0.0079
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5		0.00851466	g	9239	0.9239		2558	0.2558
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Polydimethyl silicones and siloxanes	63148-62-9		0.00048845	g	530	0.053		146	0.0146
Organic Substrate, Halogen-fre		Metals	Aluminum Hydroxide	21645-51-2		0.05635123	g	61145	6.1145		16935	1.6935
Organic Substrate, Halogen-fre		Metals	Copper phthalocyanine	147-14-8		0.00010875	g	118	0.0118		32	0.0032
Gel Die Encapsulant	0.012						g					
Gel Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.00864	g	720000	72		2596	0.2596
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.0012	g	100000	10		360	0.036
Gel Die Encapsulant		Metals	Zinc oxide	1314-13-2		0.00216	g	180000	18		649	0.0649
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/MCIMX6D6AVT10AC_IPC1752_v11.xml

http://www.freescale.com/mcds/MCIMX6D6AVT10AC_IPC1752A.xml