PART INFORMATION

Mfg Item Number	FS32R274KCK2MMM
Mfg Item Name	MAPBGA 257 14*14*1.5P0.8

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-02-01
Response Document ID	00NTA1.6
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	e2
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	FS32R274KCK2MMM
Mfg Item Name	MAPBGA 257 14*14*1.5P0.8
Version	ALL
Weight	0.407200
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%
Non-Conductive Epoxy/Adhesive	0.0015						g					
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0001125	g	75000	7.5		276	0.0276
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.0003	g	200000	20		736	0.0736
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.0001125	g	75000	7.5		276	0.0276
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.0003	g	200000	20		736	0.0736
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.000675	g	450000	45		1657	0.1657
Solder Balls - Pb Free, Sn/Ag	0.0279						g					
Solder Balls - Pb Free, Sn/Ag		Metals	Aluminum, metal	7429-90-5		0.00000089	g	32	0.0032		2	0.0002
Solder Balls - Pb Free, Sn/Ag		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.00000349	g	125	0.0125		8	0.0008
Solder Balls - Pb Free, Sn/Ag		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00000209	g	75	0.0075		5	0.0005
Solder Balls - Pb Free, Sn/Ag		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00000525	g	188	0.0188		12	0.0012
Solder Balls - Pb Free, Sn/Ag		Cadmium/Cadmium Compounds	Cadmium	7440-43-9		0.00000036	g	13	0.0013		0	0
Solder Balls - Pb Free, Sn/Ag		Metals	Copper, metal	7440-50-8		0.00000176	g	63	0.0063		4	0.0004
Solder Balls - Pb Free, Sn/Ag		Metals	Gold, metal	7440-57-5		0.00000176	g	63	0.0063		4	0.0004
Solder Balls - Pb Free, Sn/Ag		Metals	Indium, metal	7440-74-6		0.00000176	g	63	0.0063		4	0.0004
Solder Balls - Pb Free, Sn/Ag		Solvents, additives, and other materials	Sulfur	7704-34-9		0.0000002	g	7	0.0007		0	0
Solder Balls - Pb Free, Sn/Ag		Solvents, additives, and other materials	Phosphorus, elemental (not containing red allotrope)	7723-14-0		0.00000176	g	63	0.0063		4	0.0004
Solder Balls - Pb Free, Sn/Ag		Metals	Iron, metal	7439-89-6		0.00000349	g	125	0.0125		8	0.0008
Solder Balls - Pb Free, Sn/Ag		Lead/Lead Compounds	Lead	7439-92-1		0.00000873	g	313	0.0313		21	0.0021
Solder Balls - Pb Free, Sn/Ag		Nickel (external applications only)	Nickel	7440-02-0		0.00000089	g	32	0.0032		2	0.0002
Solder Balls - Pb Free, Sn/Ag		Metals	Silver, metal	7440-22-4		0.00097656	g	35002	3.5002		2398	0.2398
Solder Balls - Pb Free, Sn/Ag		Metals	Tin, metal	7440-31-5		0.02689048	g	963817	96.3817		66037	6.6037
Solder Balls - Pb Free, Sn/Ag		Metals	Zinc, metal	7440-66-6		0.00000053	g	19	0.0019		1	0.0001
Die Encapsulant, Halogen-free	0.2379						g					
Die Encapsulant, Halogen-free		Plastics/polymers	Other Epoxy resins	-		0.014274	g	60000	6		35054	3.5054
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.002379	g	10000	1		5842	0.5842
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other inorganic compounds.	-		0.004758	g	20000	2		11684	1.1684
Die Encapsulant, Halogen-free		Plastics/polymers	Other phenolic resins	-		0.011895	g	50000	5		29211	2.9211
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.204594	g	860000	86		502462	50.2462
Bonding Wire, PdCu	0.0037						g					
Bonding Wire, PdCu		Metals	Copper, metal	7440-50-8		0.0036297	g	981000	98.1		8913	0.8913
Bonding Wire, PdCu		Metals	Gold, metal	7440-57-5		0.0000037	g	1000	0.1		9	0.0009
Bonding Wire, PdCu		Metals	Palladium, metal	7440-05-3		0.0000666	g	18000	1.8		163	0.0163
Silicon Semiconductor Die	0.0142						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000284	g	20000	2		697	0.0697
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.013916	g	980000	98		34174	3.4174
Organic Substrate, Halogen-fre	0.122						g					
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Acrylonitrile/Butadiene copolymer, carboxyl terminated (26/74)	68891-46-3		0.00056925	g	4666	0.4666		1397	0.1397
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.00528577	g	43326	4.3326		12980	1.298
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.0541303	g	443691	44.3691		132932	13.2932
Organic Substrate, Halogen-fre		Plastics/polymers	4,4'-dihydroxy-3,3',5,5'-tetramethylbiphenyl digycidyl ether	85954-11-6		0.00303036	g	24839	2.4839		7441	0.7441
Organic Substrate, Halogen-fre		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.02478869	g	203186	20.3186		60875	6.0875
Organic Substrate, Halogen-fre		Metals	Gold, metal	7440-57-5		0.0003488	g	2859	0.2859		856	0.0856
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Silicon	7440-21-3		0.00006844	g	561	0.0561		168	0.0168
Organic Substrate, Halogen-fre		Nickel (external applications only)	Nickel	7440-02-0		0.00353422	g	28969	2.8969		8679	0.8679
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.02354576	g	192998	19.2998		57823	5.7823
Organic Substrate, Halogen-fre		Plastics/polymers	Other acrylic resins	-		0.00401892	g	32942	3.2942		9869	0.9869
Organic Substrate, Halogen-fre		Plastics/polymers	Other acrylic/epoxy resin mixture	-		0.00267949	g	21963	2.1963		6580	0.658

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/FS32R274KCK2MMM_IPC1752_v11.xml

http://www.freescale.com/mcds/FS32R274KCK2MMM_IPC1752A.xml