

PART INFORMATION

Mfg Item Number	MCIMX515DVK8C
Mfg Item Name	MAPBGA527 13*13*1.3P0.5

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-03-15
Response Document ID	002KA1.10
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	MCIMX515DVK8C
Mfg Item Name	MAPBGA527 13*13*1.3P0.5
Version	ALL
Weight	0.639100
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%
Non-Conductive Epoxy/Adhesive	0.0015						g				
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0001125	g	75000	7.5	176	0.0176
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.0003	g	200000	20	469	0.0469
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.0001125	g	75000	7.5	176	0.0176
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.0003	g	200000	20	469	0.0469
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.000675	g	450000	45	1056	0.1056
Solder Balls - Lead Free	0.2688						g				
Solder Balls - Lead Free		Metals	Aluminum, metal	7429-90-5		0.0000134	g	5	0.0005	2	0.0002
Solder Balls - Lead Free		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.00002688	g	100	0.01	42	0.0042
Solder Balls - Lead Free		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00002688	g	100	0.01	42	0.0042
Solder Balls - Lead Free		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00004032	g	150	0.015	63	0.0063
Solder Balls - Lead Free		Cadmium/Cadmium Compounds	Cadmium	7440-43-9		0.00000269	g	10	0.001	4	0.0004
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.00134292	g	4996	0.4996	2101	0.2101
Solder Balls - Lead Free		Metals	Gold, metal	7440-57-5		0.00001344	g	50	0.005	21	0.0021
Solder Balls - Lead Free		Metals	Iron, metal	7439-89-6		0.00002688	g	100	0.01	42	0.0042
Solder Balls - Lead Free		Lead/Lead Compounds	Lead	7439-92-1		0.00008064	g	300	0.03	126	0.0126
Solder Balls - Lead Free		Nickel (external applications only)	Nickel	7440-02-0		0.00000672	g	25	0.0025	10	0.001
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.002688585	g	9992	0.9992	4202	0.4202
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.2645441	g	984167	98.4167	413945	41.3945
Solder Balls - Lead Free		Metals	Zinc, metal	7440-66-6		0.00000134	g	5	0.0005	2	0.0002
Die Encapsulant	0.2389						g				
Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.00716915	g	30009	3.0009	11217	1.1217
Die Encapsulant		Plastics/polymers	Other Epoxy resins	-		0.00716915	g	30009	3.0009	11217	1.1217
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00071694	g	3001	0.3001	1121	0.1121
Die Encapsulant		Solvents, additives, and other materials	Other organic phosphorous compounds	-		0.00071694	g	3001	0.3001	1121	0.1121
Die Encapsulant		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.01314356	g	55017	5.5017	20565	2.0565
Die Encapsulant		Glass	Silica, amorphous synthetic	112926-00-8		0.20998426	g	878963	87.8963	328562	32.8562
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	444	0.0444
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.013916	g	980000	98	21774	2.1774
Organic Substrate, Halogen-free	0.112						g				
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.00630504	g	56295	5.6295	9865	0.9865
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.04356184	g	388945	38.8945	68161	6.8161
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00080248	g	7165	0.7165	1255	0.1255
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Other inorganic compounds.	-		0.00573182	g	51177	5.1177	8968	0.8968
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.01089043	g	97236	9.7236	17040	1.704
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.01719547	g	153531	15.3531	26905	2.6905
Organic Substrate, Halogen-free		Plastics/polymers	Other acrylic/epoxy resin mixture	-		0.02063466	g	184238	18.4238	32287	3.2287
Organic Substrate, Halogen-free		Plastics/polymers	Other Non-halogenated Epoxy resins	-		0.00687826	g	61413	6.1413	10762	1.0762
Bonding Wire, Copper	0.0037						g				
Bonding Wire, Copper		Metals	Copper, metal	7440-50-8		0.003589	g	970000	97	5615	0.5615
Bonding Wire, Copper		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000111	g	30000	3	173	0.0173

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/MCIMX515DVK8C_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MCIMX515DVK8C_IPC1752A.xml