

<b>PART INFORMATION</b>	
Mfg Item Number	MPC8536AVTAKGA
Mfg Item Name	FCPBGA 783 29SQ2.9P1.0
<b>SUPPLIER</b>	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-03-13
Response Document ID	8446K00208D002A1.16
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
<b>DECLARATION</b>	
EU RoHS	Yes
Pb Free	No
HalogenFree	Yes
Plating Indicator	e2
EU RoHS Exemption(s)	15
<b>MANUFACTURING</b>	
Mfg Item Number	MPC8536AVTAKGA
Mfg Item Name	FCPBGA 783 29SQ2.9P1.0
Version	ALL
Weight	3.695600
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	4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
Exemptions in this part	15:Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
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. piezoelectric 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%
Capacitor, 0306	0.0782					g					
Capacitor, 0306		Metals	Copper, metal	7440-50-8	0.0107916	g	138000	13.8		2920	0.292
Capacitor, 0306		Nickel (external applications only)	Nickel	7440-02-0	0.015249	g	195000	19.5		4126	0.4126
Capacitor, 0306		Metals	Tin, metal	7440-31-5	0.0010166	g	138000	1.3		275	0.0275
Capacitor, 0306		Metals	Barium titanate	12047-27-7	0.0511426	g	654000	65.4		13838	1.3838
Capacitor Solder Paste	0.0065					g					
Capacitor Solder Paste		Metals	Copper, metal	7440-50-8	0.0000325	g	5000	0.5		8	0.0008
Capacitor Solder Paste		Lead/Lead Compounds	Lead	7439-92-1	0.0000054	g	83	0.0083		0	0
Capacitor Solder Paste		Metals	Silver, metal	7440-22-4	0.000195	g	30000	3		52	0.0052
Capacitor Solder Paste		Metals	Tin, metal	7440-31-5	0.00627196	g	964917	96.4917		1697	0.1697
Solder Balls - Pb Free, Sn/Ag	0.6385					g					
Solder Balls - Pb Free, Sn/Ag		Metals	Silver, metal	7440-22-4	0.0223475	g	35000	3.5		6047	0.6047
Solder Balls - Pb Free, Sn/Ag		Metals	Tin, metal	7440-31-5	0.6161525	g	965000	96.5		166725	16.6725
High Pb Bumped Semiconductor D	0.3463				15	g					
High Pb Bumped Semiconductor D		Lead/Lead Compounds	Lead	7439-92-1	0.0326135	g	94177	9.4177		8824	0.8824
High Pb Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0	0.0000857	g	825	0.0825		77	0.0077
High Pb Bumped Semiconductor D		Metals	Tin, metal	7440-31-5	0.00171626	g	4956	0.4956		464	0.0464
High Pb Bumped Semiconductor D		Metals	Titanium, metal	7440-32-6	0.00001454	g	42	0.0042		3	0.0003
High Pb Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-	0.0031167	g	9000	0.9		843	0.6843
High Pb Bumped Semiconductor D		Glass	Silicon, doped	-	0.0085533	g	891000	89.1		63492	8.3492
Organic Substrate, Halogen-fre	2.5643				15	g					
Organic Substrate, Halogen-fre		Arsenic/Arsenic Compounds	Arsenic	7440-38-2	0.00001795	g	7	0.0007		4	0.0004
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7	0.01052902	g	4106	0.4106		2849	0.2849
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8	0.882191	g	344028	34.4028		238734	23.8734
Organic Substrate, Halogen-fre		Plastics/polymers	2,2'-(1-methyl-ethylidene)bis(4,1-phenyleneoxymethylene)bisoxirane	1675-54-3	0.01974255	g	7699	0.7699		5342	0.5342
Organic Substrate, Halogen-fre		Plastics/polymers	Other Epoxy resins	-	0.03980306	g	15522	1.5522		10770	1.077
Organic Substrate, Halogen-fre		Plastics/polymers	Proprietary Material-Other Epoxy resins	-	0.10678258	g	41642	4.1642		28894	2.8894
Organic Substrate, Halogen-fre		Lead/Lead Compounds	Lead	7439-92-1	0.00250532	g	977	0.0977		677	0.0677
Organic Substrate, Halogen-fre		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxyp propane concentrate	25068-38-6	0.03706163	g	14453	1.4453		10028	1.0028
Organic Substrate, Halogen-fre		Plastics/polymers	Proprietary Material-Other phenolic resins	-	0.02190809	g	28903	2.8903		19430	1.943
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3	0.77417499	g	301905	30.1905		209485	20.9485
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9	0.19190708	g	74838	7.4838		51928	5.1928
Organic Substrate, Halogen-fre		Metals	Silver, metal	7440-22-4	0.0006462	g	252	0.0252		174	0.0174
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5	0.02500962	g	9753	0.9753		6767	0.6767
Organic Substrate, Halogen-fre		Metals	Aluminum Hydroxide	21645-51-2	0.40043596	g	156158	15.6158		108354	10.8354
Organic Substrate, Halogen-fre		Metals	Copper phthalocyanine	147-14-8	0.00168475	g	657	0.0657		455	0.0455
Underfill	0.0618					g					
Underfill		Solvents, additives, and other materials	4,4'-Diamino-3,3'-diethyl-diphenylmethane	1990-65-3	0.006798	g	110000	11		1838	0.1839
Underfill		Bismuth/Bismuth Compounds	Bismuth nitrate	10361-44-1	0.0000618	g	1000	0.1		16	0.0016
Underfill		Bismuth/Bismuth Compounds	Bismuth trioxide	1304-76-3	0.0004944	g	8000	0.8		133	0.0133
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	0.006652	g	140000	14		2341	0.2341
Underfill		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5	0.00618	g	100000	10		1672	0.1672
Underfill		Solvents, additives, and other materials	Carbon Black	1333-86-4	0.0000618	g	1000	0.1		16	0.0016
Underfill		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxyp propane concentrate	25068-38-6	0.002472	g	40000	4		668	0.0668
Underfill		Glass	Silica, vitreous	60676-86-0	0.03708	g	600000	60		10033	1.0033

**LINKS**

MCD LINK	
NXP website	<a href="http://www.nxp.com">http://www.nxp.com</a>
<b>GENERAL ENVIRONMENTAL COMPLIANCE LINKS</b>	
RoHS signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf</a>
China RoHS	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY</a>
REACH signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf</a>
ELV signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf</a>
Conflict Minerals statement	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf</a>
<b>NXP ENVIRONMENTAL INFORMATION</b>	
Environmental Compliance website	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX</a>
FAQ	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ</a>
Technical Service Request	<a href="http://www.nxp.com/support/sales-and-support:SUPPORTHOME">http://www.nxp.com/support/sales-and-support:SUPPORTHOME</a>
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	<a href="http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf">http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf</a>

IPC1752 XML LINKS

[http://www.freescale.com/mcds/MPC8536AVTAKGA\\_IPC1752\\_v11.xml](http://www.freescale.com/mcds/MPC8536AVTAKGA_IPC1752_v11.xml)

[http://www.freescale.com/mcds/MPC8536AVTAKGA\\_IPC1752A.xml](http://www.freescale.com/mcds/MPC8536AVTAKGA_IPC1752A.xml)