

**PART INFORMATION**

Mfg Item Number	KMPC8250AZUPIBC
Mfg Item Name	TBGA 480 37.5SQ*1.7P1.27

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-09-15
Response Document ID	5218K00080D049A1.23
Contact Name	Freescale Semiconductor Inc
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**DECLARATION**

EU RoHS	No
Pb Free	No
HalogenFree	Yes
Plating Indicator	e0
EU RoHS Exemption(s)	

**MANUFACTURING**

Mfg Item Number	KMPC8250AZUPIBC
Mfg Item Name	TBGA 480 37.5SQ*1.7P1.27
Version	ALL
Weight	10.163050
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	220 C
Max Time at Peak Temperature	30 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	3 - Item(s) does not contain RoHS restricted substances per the definition above except for lead in solders and selected exemptions, if any
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%
Epoxy Die Attach	0.0313										
Epoxy Die Attach		Solvents, additives, and other materials	1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]	38668-46-1		0.0026452	g	8451	0.8451	26	0.0026
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00405582	g	129579	12.9579	399	0.0399
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6		0.0029452	g	8451	0.8451	26	0.0026
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.02671514	g	853519	85.3519	2628	0.2628
Dam	0.018										
Dam		Solvents, additives, and other materials	Methylhexahydrophthalic anhydride	25550-51-0		0.00114707	g	63726	6.3726	112	0.0112
Dam		Solvents, additives, and other materials	Substituted phthalic anhydride	34090-76-1		0.00114707	g	63726	6.3726	112	0.0112
Dam		Plastics/polymers	2,2'-(1,1-methylethylenedioxy)bis[4,1-phenyleneoxy(methylene)bisoxirane]	1675-54-3		0.00104726	g	58181	5.8181	103	0.0103
Dam		Plastics/polymers	3,4-Epoxyhexanecarboxylic acid (3,4-epoxycyclohexylmethyl) ester	2386-67-0		0.00104726	g	58181	5.8181	103	0.0103
Dam		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00007578	g	4210	0.421	7	0.0007
Dam		Plastics/polymers	4,4'-isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.0038826	g	21570	2.157	38	0.0038
Dam		Glass	Cristobalite	14464-46-1		0.00007112	g	3951	0.3951	6	0.0006
Dam		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.01307618	g	726455	72.6455	1286	0.1286
Die Encapsulant, Filler	0.2854										
Die Encapsulant, Filler		Solvents, additives, and other materials	Methylhexahydrophthalic anhydride	25550-51-0		0.04064381	g	142410	14.241	3999	0.3999
Die Encapsulant, Filler		Antimony/Antimony Compounds	Antimony pentoxide	1314-60-9		0.00043352	g	1519	0.1519	42	0.0042
Die Encapsulant, Filler		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00046064	g	1614	0.1614	45	0.0045
Die Encapsulant, Filler		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27810-48-6		0.04064381	g	142410	14.241	3999	0.3999
Die Encapsulant, Filler		Glass	Silica, vitreous	60676-86-0		0.03321822	g	712047	71.2047	19995	1.9995
Bonding Wire	0.0312										
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0312	g	1000000	100	3069	0.3069
Solder Balls - Low Lead	0.9188										
Solder Balls - Low Lead		Metals	Aluminum, metal	7429-90-5		0.00000735	g	8	0.0008	0	0
Solder Balls - Low Lead		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.00000643	g	7	0.0007	0	0
Solder Balls - Low Lead		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00001838	g	20	0.002	1	0.0001
Solder Balls - Low Lead		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00001011	g	11	0.0011	0	0
Solder Balls - Low Lead		Metals	Copper, metal	7440-50-8		0.00000919	g	10	0.001	0	0
Solder Balls - Low Lead		Metals	Iron, metal	7439-89-6		0.00001562	g	17	0.0017	1	0.0001
Solder Balls - Low Lead		Lead/Lead Compounds	Lead	7439-92-1		0.33078454	g	360018	36.0018	32547	3.2547
Solder Balls - Low Lead		Nickel (external applications only)	Nickel	7440-02-0		0.000034	g	37	0.0037	3	0.0003
Solder Balls - Low Lead		Metals	Silver, metal	7440-22-4		0.01830066	g	19918	1.9918	1800	0.18
Solder Balls - Low Lead		Metals	Tin, metal	7440-31-5		0.56960729	g	619947	61.9947	56046	5.6046
Solder Balls - Low Lead		Metals	Zinc, metal	7440-66-6		0.00000643	g	7	0.0007	0	0
Silicon Semiconductor Die	0.06005										
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.001201	g	20000	2	118	0.0118
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.056849	g	980000	98	5790	0.579
Organic Substrate	8.8183										
Organic Substrate		Metals	Aluminum fluoride	7784-18-1		0.02245139	g	2546	0.2546	2209	0.2209
Organic Substrate		Metals	Barium sulfate	7727-43-7		0.03186697	g	3616	0.3616	3137	0.3137
Organic Substrate		Metals	Chromium, metal	7440-47-3		0.00000882	g	1	0.0001	0	0
Organic Substrate		Metals	Copper, metal	7440-50-8		8.40452774	g	953078	95.3078	826995	82.6995
Organic Substrate		Metals	Cupric oxide	1317-38-0		0.123622	g	13978	1.3978	12128	1.2128
Organic Substrate		Plastics/polymers	4,4'-dihydroxy-3,3',5,5'-tetramethylbiphenyl diglycidyl ether	85954-11-6		0.04370349	g	4956	0.4956	4300	0.43
Organic Substrate		Metals	Gold, metal	7440-57-5		0.00149029	g	169	0.0169	146	0.0146
Organic Substrate		Nickel (external applications only)	Nickel	7440-02-0		0.00947967	g	1075	0.1075	932	0.0932
Organic Substrate		Plastics/polymers	4,4'-isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.04529961	g	5137	0.5137	4457	0.4457
Organic Substrate		Metals	Zinc, metal	7440-66-6		0.00004409	g	5	0.0005	4	0.0004
Organic Substrate		Metals	Zirconium, metal	7440-67-7		0.00331568	g	376	0.0376	326	0.0326
Organic Substrate		Solvents, additives, and other materials	Morpholin	110-91-8		0.00354406	g	402	0.0402	348	0.0348
Organic Substrate		Plastics/polymers	Formaldehyde, polymer with 4,4'-(1-methylethylenedioxy)bis[pheno]	25085-75-0		0.00740737	g	840	0.084	728	0.0728
Organic Substrate		Plastics/polymers	polyethylene terephthalate	25038-69-9		0.03780405	g	4287	0.4287	3719	0.3719
Organic Substrate		Glass	Silica amorphous	61790-63-2		0.00354496	g	402	0.0402	348	0.0348
Organic Substrate		Plastics/polymers	Polyamide 6	63428-83-1		0.00665075	g	981	0.0981	851	0.0851
Organic Substrate		Plastics/polymers	Poly[[1,1,3,3-tetrahydro-1,1,3,3-tetraoxo[5,5'-bi-2H-isoxole]2,2'-diyl]-1,4-phenylene]	32197-39-0		0.07036767	g	7962	0.7962	6925	0.6925
Organic Substrate		Solvents, additives, and other materials	3,6,9,12-Tetraazatetradecane-1,14-diamine	4067-16-7		0.00149029	g	169	0.0169	146	0.0146

## LINKS

MCD LINK	
NXP website	<a href="http://www.nxp.com">http://www.nxp.com</a>
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
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>
NXP ENVIRONMENTAL INFORMATION	
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/mcdfs/KMPC8250AZUPIBC\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/KMPC8250AZUPIBC_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/KMPC8250AZUPIBC\\_IPC1752A.xml](http://www.freescale.com/mcdfs/KMPC8250AZUPIBC_IPC1752A.xml)