

PART INFORMATION	
Mfg Item Number	MPC8248ZQTIEA
Mfg Item Name	FPBGA 516 27*27*1.25P1.0
SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-09-13
Response Document ID	5201K10774D035A1.37
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
Contact Phone	1-800-521-6274
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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	No
Pb Free	No
HalogenFree	Yes
Plating Indicator	e0
EU RoHS Exemption(s)	
MANUFACTURING	
Mfg Item Number	MPC8248ZQTIEA
Mfg Item Name	FPBGA 516 27*27*1.25P1.0
Version	ALL
Weight	4.634150
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	245 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	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%
Epoxy Die Attach	0.0267						g				
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		0.00022564	g	8451	0.8451	48	0.0048
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00345976	g	129579	12.9579	746	0.0746
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6		0.00022564	g	8451	0.8451	48	0.0048
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.02278896	g	853519	85.3519	4917	0.4917
Solder Balls - Low Lead	0.6876						g				
Solder Balls - Low Lead		Lead/Lead Compounds	Lead	7439-92-1		0.247536	g	360000	36	53415	5.3415
Solder Balls - Low Lead		Metals	Silver, metal	7440-22-4		0.013752	g	20000	2	2967	0.2967
Solder Balls - Low Lead		Metals	Tin, metal	7440-31-5		0.426312	g	620000	62	91993	9.1993
Die Encapsulant, Halogen-free	1.8181						g				
Die Encapsulant, Halogen-free		Plastics/polymers	Other Epoxy resins	-		0.109086	g	60000	6	23539	2.3539
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.018181	g	10000	1	3923	0.3923
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other inorganic compounds.	-		0.038362	g	20000	2	7846	0.7846
Die Encapsulant, Halogen-free		Plastics/polymers	Other phenolic resins	-		0.009905	g	50000	5	19616	1.9616
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		1.563566	g	860000	86	337413	33.7413
Bonding Wire, Copper	0.025						g				
Bonding Wire, Copper		Metals	Copper, metal	7440-50-8		0.02425	g	970000	97	5232	0.5232
Bonding Wire, Copper		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00075	g	30000	3	161	0.0161
Organic Substrate, Halogen-free	2.0417						g				
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.03926802	g	19233	1.9233	8473	0.8473
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		1.39044056	g	681021	68.1021	300042	30.0042
Organic Substrate, Halogen-free		Plastics/polymers	2,2'-(1-(1-methylethylidene)bis(4,1-phenyleneoxy)methylene)bisoxirane	1675-54-3		0.00487558	g	2388	0.2388	1052	0.1052
Organic Substrate, Halogen-free		Plastics/polymers	Poly[o-cresyl glycidyl ether]-co-formaldehyde	29690-82-2		0.13076272	g	64046	6.4046	28217	2.8217
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.002693	g	1319	0.1319	581	0.0581
Organic Substrate, Halogen-free		Solvents, additives, and other materials	1-cyanoguanidine	461-58-5		0.00053288	g	261	0.0261	114	0.0114
Organic Substrate, Halogen-free		Solvents, additives, and other materials	1,1'-(methylenedi-p-phenylene)bismaleimide	13676-54-5		0.03922922	g	19214	1.9214	8465	0.8465
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.01859785	g	9109	0.9109	4013	0.4013
Organic Substrate, Halogen-free		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.13076272	g	64046	6.4046	28217	2.8217
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.02922117	g	102474	10.2474	45147	4.5147
Organic Substrate, Halogen-free		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.01342622	g	6576	0.6576	2897	0.2897
Organic Substrate, Halogen-free		Metals	Copper phthalocyanine	147-14-8		0.00032055	g	157	0.0157	69	0.0069
Organic Substrate, Halogen-free		Plastics/polymers	Other Non-halogenated Epoxy resins	-		0.06156951	g	30156	3.0156	13286	1.3286
Silicon Semiconductor Die	0.03505						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000701	g	20000	2	151	0.0151
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.034349	g	980000	98	7412	0.7412

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/mcds/MPC8248ZQTIEA\\_IPC1752\\_v11.xml](http://www.freescale.com/mcds/MPC8248ZQTIEA_IPC1752_v11.xml)

[http://www.freescale.com/mcds/MPC8248ZQTIEA\\_IPC1752A.xml](http://www.freescale.com/mcds/MPC8248ZQTIEA_IPC1752A.xml)