Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MPC564MZP56
Mfg Item Name	PBGA 388 27*27*1.25P1.0

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2015-03-19
Response Document ID	5254K00033D033A1.35
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
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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	No
Pb Free	No
HalogenFree	No
Plating Indicator	e0
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	MPC564MZP56
Mfg Item Name	PBGA 388 27*27*1.25P1.0
Version	ALL
Weight	2.450850
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	240 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	0.0188						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		0.00015888	g	8451	0.8451		64	0.0064
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00243609	g	129579	12.9579		993	0.0993
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6		0.00015888	g	8451	0.8451		64	0.0064
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.01604615	g	853519	85.3519		6547	0.6547
Die Encapsulant	1.16025						g					
Die Encapsulant		Antimony/Antimony Compounds	Antimony trioxide	1309-64-4		0.00787694	g	6789	0.6789		3213	0.3213
Die Encapsulant		Lead/Lead Compounds	Lead	7439-92-1		0.0000116	g	10	0.001		4	0.0004
Die Encapsulant		Solvents, additives, and other materials	Other organic Silicon Compounds	-		0.01575503	g	13579	1.3579		6428	0.6428
Die Encapsulant		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.05626864	g	48497	4.8497		22958	2.2958
Die Encapsulant		Plastics/polymers	Proprietary Material-Other polymers	-		0.11253497	g	96992	9.6992		45916	4.5916
Die Encapsulant		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.95654839	g	824433	82.4433		390306	39.0306
Die Encapsulant		Plastics/polymers	Other brominated epoxy resins	-		0.01125443	g	9700	0.97		4592	0.4592
Solder Balls - Low Lead	0.3646						g					
Solder Balls - Low Lead		Lead/Lead Compounds	Lead	7439-92-1		0.131256	g	360000	36		53555	5.3555
Solder Balls - Low Lead		Metals	Silver, metal	7440-22-4		0.007292	g	20000	2		2975	0.2975
Solder Balls - Low Lead		Metals	Tin, metal	7440-31-5		0.226052	g	620000	62		92234	9.2234
Bonding Wire	0.0229						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0229	g	1000000	100		9343	0.9343
Organic Substrate	0.8333						g					
Organic Substrate		Flame Retardants	Bromine	7726-95-6		0.03580023	g	42962	4.2962		14607	1.4607
Organic Substrate		Flame Retardants	Bromophenol, formaldehyde, epichlorohydrin polymer	68541-56-0		0.11831027	g	141978	14.1978		48273	4.8273
Organic Substrate		Metals	Copper, metal	7440-50-8		0.18872745	g	226482	22.6482		77004	7.7004
Organic Substrate		Plastics/polymers	4,4'-dihydroxy-3,3',5,5'-tetramethylbiphenyl digycidyl ether	85954-11-6		0.00289238	g	3471	0.3471		1180	0.118
Organic Substrate		Plastics/polymers	Poly[(o-cresyl glycidyl ether)-co-formaldehyde]	29690-82-2		0.09710195	g	116527	11.6527		39619	3.9619
Organic Substrate		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.00788718	g	9465	0.9465		3218	0.3218
Organic Substrate		Metals	Gold, metal	7440-57-5		0.00280405	g	3365	0.3365		1144	0.1144
Organic Substrate		Solvents, additives, and other materials	1,1'-(methylenedi-p-phenylene)bismaleimide	13676-54-5		0.02050751	g	24610	2.461		8367	0.8367
Organic Substrate		Nickel (external applications only)	Nickel	7440-02-0		0.01367112	g	16406	1.6406		5578	0.5578
Organic Substrate		Glass	Fibrous-glass-wool	65997-17-3		0.27732809	g	332807	33.2807		113155	11.3155
Organic Substrate		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.0267731	g	32129	3.2129		10924	1.0924
Organic Substrate		Plastics/polymers	Other acrylic resins	-		0.04149667	g	49798	4.9798		16931	1.6931
Silicon Semiconductor Die	0.051						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00102	g	20000	2		416	0.0416
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.04998	g	980000	98		20392	2.0392

LINKS	
MCD LINK	
Freescale website	http://www.freescale.com
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
RoHS signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ROHS_Freescale_Response.pdf
China RoHS	http://www.freescale.com/chinarohs
REACH signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescale_Response.pdf
ELV signed letter	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescale_Reponse.pdf
Conflict Minerals statement	http://www.freescale.com/files/abstract/corporate/ehs_epp/ENV_CONFLICT_METAL_Freescale_Response.pdf
FREESCALE ENVIRONMENTAL INFORMATION	
EPP website	http://www.freescale.com/epp
FAQ	http://www.freescale.com/webapp/sps/site/overview.jsp?code=ENVIRON_FAQ
Technical Service Request	https://www.freescale.com/webapp/servicerequest.create_SR.framework?defaultCategory=Hardware Product Support&defaultTopic=Environmentally Preferred Prod
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcds/MPC564MZP56_IPC1752_v11.xml

http://www.freescale.com/mcds/MPC564MZP56_IPC1752A.xml