Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	SPC5517GAVMG80
Mfg Item Name	MAPBGA 208 17*17*0.8P1.0

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-06-08
Response Document ID	5253K00090D217A1.35
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
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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	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e2
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	SPC5517GAVMG80
Mfg Item Name	MAPBGA 208 17*17*0.8P1.0
Version	ALL
Weight	0.828900
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	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%
Die Encapsulant	0.4784						g					
Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.01478065	g	30896	3.0896		17831	1.7831
Die Encapsulant		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.01478065	g	30896	3.0896		17831	1.7831
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00147826	g	3090	0.309		1783	0.1783
Die Encapsulant		Solvents, additives, and other materials	Other organic phosphorous compounds	-		0.00147826	g	3090	0.309		1783	0.1783
Die Encapsulant		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.02709753	g	56642	5.6642		32690	3.269
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		0.41878465	g	875386	87.5386		505242	50.5242
Non-Conductive Epoxy/Adhesive	0.0027						g					
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0002025	g	75000	7.5		244	0.0244
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.00054	g	200000	20		651	0.0651
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.0002025	g	75000	7.5		244	0.0244
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.00054	g	200000	20		651	0.0651
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.001215	g	450000	45		1465	0.1465
Solder Balls - Pb Free, Sn/Ag	0.1703						g					
Solder Balls - Pb Free, Sn/Ag		Metals	Silver, metal	7440-22-4		0.0059605	g	35000	3.5		7190	0.719
Solder Balls - Pb Free, Sn/Ag		Metals	Tin, metal	7440-31-5		0.1643395	g	965000	96.5		198262	19.8262
Organic Substrate, Halogen-fre	0.1313						g					
Organic Substrate, Halogen-fre		Metals	Barium sulfate	7727-43-7		0.00273248	g	20811	2.0811		3296	0.3296
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.05823288	g	443510	44.351		70253	7.0253
Organic Substrate, Halogen-fre		Plastics/polymers	Epikote 862	28064-14-4		0.00998405	g	76040	7.604		12044	1.2044
Organic Substrate, Halogen-fre		Metals	Gold, metal	7440-57-5		0.00042147	g	3210	0.321		508	0.0508
Organic Substrate, Halogen-fre		Nickel (external applications only)	Nickel	7440-02-0		0.00245308	g	18683	1.8683		2959	0.2959
Organic Substrate, Halogen-fre		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.00539682	g	41103	4.1103		6510	0.651
Organic Substrate, Halogen-fre		Glass	Fibrous-glass-wool	65997-17-3		0.03305543	g	251755	25.1755		39878	3.9878
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.00283332	g	21579	2.1579		3418	0.3418
Organic Substrate, Halogen-fre		Metals	Aluminum Hydroxide	21645-51-2		0.01619047	g	123309	12.3309		19532	1.9532
Bonding Wire	0.0062						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0062	g	1000000	100		7479	0.7479
Silicon Semiconductor Die	0.04						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0008	g	20000	2		965	0.0965
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.0392	g	980000	98		47291	4.7291

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/mcds/SPC5517GAVMG80_IPC1752_v11.xml

http://www.freescale.com/mcds/SPC5517GAVMG80_IPC1752A.xml