Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MSC8122TMP6400
Mfg Item Name	FCPBGA 431 20*20*3.8P0.8

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2012-02-28
Response Document ID	5263K11033D014A1.26
Contact Name	Freescale Semiconductor Inc
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Representative Title	EPP Customer Response
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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)	15

MANUFACTURING	
Mfg Item Number	MSC8122TMP6400
Mfg Item Name	FCPBGA 431 20*20*3.8P0.8
Version	ALL
Weight	2.647600
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	250 C
Max Time at Peak Temperature	30 seconds
Number of Processing Cycles	3

RoHS	
RoHS Directive	2002/95/EC
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 2002/95/EC 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	2 - Item(s) contain RoHS restricted substances above the limits and is not under exemptions
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemptions in this part	
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

SubPart	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%		REACHPPM	REACH%
Underfill	0.0416						g					
Underfill		Solvents, additives, and other materials	Methylhexahydrophthalic anhydride	25550-51-0		0.006284	g	151065	15.1065		2373	0.2373
Underfill		Plastics/polymers	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	17557-23-2		0.002317	g	55695	5.5695		875	0.0875
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.002317	g	55695	5.5695		875	0.0875
Underfill		Plastics/polymers	Elastomer Modified Diglycidyl Ether	68909-14-8		0.002317	g	55695	5.5695		875	0.0875
Underfill		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.027156	g	652781	65.2781		10256	1.0256
Underfill		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.001209	g	29069	2.9069		456	0.0456
Solder Balls - Low Lead	0.255						g					
Solder Balls - Low Lead		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.0918	g	360000	36		34672	3.4672
Solder Balls - Low Lead		Metals	Silver, metal	7440-22-4		0.0051	g	20000	2		1926	0.1926
Solder Balls - Low Lead		Metals	Tin, metal	7440-31-5		0.1581	g	620000	62		59715	5.9715
Bonding Agent	0.0347						g					
Bonding Agent		Metals	Aluminum, metal	7429-90-5		0.029495	g	850000	85		11140	1.114
Bonding Agent		Solvents, additives, and other materials	Other organic Silicon Compounds	-		0.005205	g	150000	15		1965	0.1965
Cap/Cover	0.7471						g					
Cap/Cover		Metals	Cadmium, metal	7440-43-9		0.000002	g	3	0.0003		0	0
Cap/Cover		Metals	Chromium, metal	7440-47-3		0.000002	g	3	0.0003		0	0
Cap/Cover		Metals	Copper, metal	7440-50-8		0.7337	g	982063	98.2063		277129	27.7129
Cap/Cover		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.000002	g	3	0.0003		0	0
Cap/Cover		Metals	Magnesium, metal	7439-95-4		0.001027	g	1375	0.1375		387	0.0387
Cap/Cover		Metals	Mercury	7439-97-6		0.000002	g	3	0.0003		0	0
Cap/Cover		Metals	Nickel, metal	7440-02-0		0.012365	g	16550	1.655		4670	0.467
Capacitor, 0306	0.0408						g					
Capacitor, 0306		Metals	Copper, metal	7440-50-8		0.00563	g	138000	13.8		2126	0.2126
Capacitor, 0306		Metals	Nickel, metal	7440-02-0		0.007956	g	195000	19.5		3004	0.3004
Capacitor, 0306		Metals	Tin, metal	7440-31-5		0.00053	g	13000	1.3		200	0.02
Capacitor, 0306		Metals	Barium titanate	12047-27-7		0.026684	g	654000	65.4		10078	1.0078
High Pb Bumped Semiconductor D	0.225				15		g					
High Pb Bumped Semiconductor D		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.02119	g	94177	9.4177		8003	0.8003
High Pb Bumped Semiconductor D		Metals	Nickel, metal	7440-02-0		0.000186	g	825	0.0825		70	0.007
High Pb Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.001115	g	4956	0.4956		421	0.0421
High Pb Bumped Semiconductor D		Metals	Titanium, metal	7440-32-6		0.000009	g	42	0.0042		3	0.0003
High Pb Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.002025	g	9000	0.9		764	0.0764
High Pb Bumped Semiconductor D		Glass	Silicon, doped	-		0.200475	g	891000	89.1		75720	7.572
Capacitor Solder Paste	0.0128						g					
Capacitor Solder Paste		Metals	Copper, metal	7440-50-8		0.000064	g	5000	0.5		24	0.0024
Capacitor Solder Paste		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.000001	g	83	0.0083		0	0
Capacitor Solder Paste		Metals	Silver, metal	7440-22-4		0.000384	g	30000	3		145	0.0145
Capacitor Solder Paste		Metals	Tin, metal	7440-31-5		0.012351	g	964917	96.4917		4664	0.4664
Substrate Assembly, Halogen-fr	1.2906				15		g					
Substrate Assembly, Halogen-fr		Metals	Arsenic, metal	7440-38-2		0.000003	g	2	0.0002		1	0.0001
Substrate Assembly, Halogen-fr		Metals	Barium sulfate	7727-43-7		0.005968	g	4624	0.4624		2254	0.2254
Substrate Assembly, Halogen-fr		Metals	Copper, metal	7440-50-8		0.424338	g	328791	32.8791		160275	16.0275
Substrate Assembly, Halogen-fr		Metals	Gold, metal	7440-57-5		0.004551	g	3526	0.3526		1718	0.1718
Substrate Assembly, Halogen-fr		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.00132	g	1023	0.1023		498	0.0498
Substrate Assembly, Halogen-fr		Metals	Nickel, metal	7440-02-0		0.020077	g	15556	1.5556		7583	0.7583
Substrate Assembly, Halogen-fr		Glass	Fibrous-glass-wool	65997-17-3		0.34126	g	264420	26.442		128896	12.8896
Substrate Assembly, Halogen-fr		Glass	Silicon dioxide	7631-86-9		0.238767	g	185005	18.5005		90183	9.0183
Substrate Assembly, Halogen-fr		Metals	Tin, metal	7440-31-5		0.002248	g	1742	0.1742		849	0.0849
Substrate Assembly, Halogen-fr		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances	-		0.252068	g	195311	19.5311		95207	9.5207

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 v0.9 Form	http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v0.9_MCD_Template.pdf
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/MSC8122TMP6400_IPC1752_v09.xml

http://www.freescale.com/mcds/MSC8122TMP6400_IPC1752_v11.xml

http://www.freescale.com/mcds/MSC8122TMP6400_IPC1752A.xml