Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MC7448HX1250ND
Mfg Item Name	FCCBGA 360 25SQ*2.8P1.27

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-06-07
Response Document ID	8424K11079D003A1.42
Contact Name	Freescale Semiconductor Inc
Contact Title	Product Technical Support
Contact Phone	1-800-521-6274
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	Yes
Plating Indicator	e0
EU RoHS Exemption(s)	15

MANUFACTURING	
Mfg Item Number	MC7448HX1250ND
Mfg Item Name	FCCBGA 360 25SQ*2.8P1.27
Version	ALL
Weight	2.668700
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	1
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	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
	15:Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
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%
Underfill	0.0303						g					
Underfill		Solvents, additives, and other materials	Methylhexahydrophthalic anhydride	25550-51-0		0.00457727	g	151065	15.1065		1715	0.1715
Underfill		Plastics/polymers	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane	17557-23-2		0.00168756	g	55695	5.5695		632	0.0632
Underfill		Plastics/polymers	1,6-Bis(2,3-epoxypropoxy) naphthalene	27610-48-6		0.00168756	g	55695	5.5695		632	0.0632
Underfill		Plastics/polymers	Elastomer Modified Diglycidyl Ether	68909-14-8		0.00168756	g	55695	5.5695		632	0.0632
Underfill		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.01977926	g	652781	65.2781		7411	0.7411
Underfill		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00088079	g	29069	2.9069		330	0.033
Solder Balls - High Lead	0.8966						g					
Solder Balls - High Lead		Lead/Lead Compounds	Lead	7439-92-1		0.802457	g	895000	89.5		300692	30.0692
Solder Balls - High Lead		Metals	Tin, metal	7440-31-5		0.094143	g	105000	10.5		35276	3.5276
Capacitor, 0306	0.0816						g					
Capacitor, 0306		Metals	Copper, metal	7440-50-8		0.0112608	g	138000	13.8		4219	0.4219
Capacitor, 0306		Nickel (external applications only)	Nickel	7440-02-0		0.015912	g	195000	19.5		5962	0.5962
Capacitor, 0306		Metals	Tin, metal	7440-31-5		0.0010608	g	13000	1.3		397	0.0397
Capacitor, 0306		Metals	Barium titanate	12047-27-7		0.0533664	g	654000	65.4		19997	1.9997
Solder Paste	0.0126						g					
Solder Paste		Lead/Lead Compounds	Lead	7439-92-1		0.004662	g	370000	37		1746	0.1746
Solder Paste		Metals	Tin, metal	7440-31-5		0.007938	g	630000	63		2974	0.2974
Capacitor Solder Paste	0.0303						g					
Capacitor Solder Paste		Metals	Copper, metal	7440-50-8		0.0001515	g	5000	0.5		56	0.0056
Capacitor Solder Paste		Lead/Lead Compounds	Lead	7439-92-1		0.00000251	g	83	0.0083		0	0
Capacitor Solder Paste		Metals	Silver, metal	7440-22-4		0.000909	g	30000	3		340	0.034
Capacitor Solder Paste		Metals	Tin, metal	7440-31-5		0.02923699	g	964917	96.4917		10955	1.0955
Organic Substrate, Halogen-fre	1.5052						g					
Organic Substrate, Halogen-fre		Metals	Aluminum Oxides (Al2O3)	1344-28-1		0.03667269	g	24364	2.4364		13741	1.3741
Organic Substrate, Halogen-fre		Metals	Barium oxide	1304-28-5		0.21858063	g	145217	14.5217		81905	8.1905
Organic Substrate, Halogen-fre		Metals	Boron oxide	1303-86-2		0.04816038	g	31996	3.1996		18046	1.8046
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Calcium monoxide	1305-78-8		0.02663903	g	17698	1.7698		9982	0.9982
Organic Substrate, Halogen-fre		Metals	Chromium oxide	1308-38-9		0.00465257	g	3091	0.3091		1743	0.1743
Organic Substrate, Halogen-fre		Metals	Copper, metal	7440-50-8		0.21481311	g	142714	14.2714		80493	8.0493
Organic Substrate, Halogen-fre		Metals	Cuprous oxide	1317-39-1		0.00116352	g	773	0.0773		435	0.0435
Organic Substrate, Halogen-fre		Metals	Gold, metal	7440-57-5		0.00136973	g	910	0.091		513	0.0513
Organic Substrate, Halogen-fre		Solvents, additives, and other materials	Phosphorus, elemental (not containing red allotrope)	7723-14-0		0.00094226	g	626	0.0626		353	0.0353
Organic Substrate, Halogen-fre		Lead/Lead Compounds	Lead	7439-92-1		0.00001054	g	7	0.0007		3	0.0003
Organic Substrate, Halogen-fre		Nickel (external applications only)	Nickel	7440-02-0		0.01853804	g	12316	1.2316		6946	0.6946
Organic Substrate, Halogen-fre		Metals	Palladium, metal	7440-05-3		0.00011891	g	79	0.0079		44	0.0044
Organic Substrate, Halogen-fre		Glass	Silicon dioxide	7631-86-9		0.81235644	g	539700	53.97		304422	30.4422
Organic Substrate, Halogen-fre		Metals	Silver, metal	7440-22-4		0.00038834	g	258	0.0258		145	0.0145
Organic Substrate, Halogen-fre		Metals	Strontium Oxide	1314-11-0		0.00290805	g	1932	0.1932		1089	0.1089
Organic Substrate, Halogen-fre		Metals	Tin, metal	7440-31-5		0.01402696	g	9319	0.9319		5256	0.5256
Organic Substrate, Halogen-fre		Metals	Zirconium oxide	1314-23-4		0.02314998	g	15380	1.538		8674	0.8674
Organic Substrate, Halogen-fre		Metals	Barium titanate	12047-27-7		0.08070882	g	53620	5.362		30242	3.0242
High Pb Bumped Semiconductor D	0.1121				15		g					
High Pb Bumped Semiconductor D		Lead/Lead Compounds	Lead	7439-92-1		0.01055724	g	94177	9.4177		3955	0.3955
High Pb Bumped Semiconductor D		Nickel (external applications only)	Nickel	7440-02-0		0.00009248	g	825	0.0825		34	0.0034
High Pb Bumped Semiconductor D		Metals	Tin, metal	7440-31-5		0.00055557	g	4956	0.4956		208	0.0208
High Pb Bumped Semiconductor D		Metals	Titanium, metal	7440-32-6		0.00000471	g	42	0.0042		1	0.0001
High Pb Bumped Semiconductor D		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0010089	g	9000	0.9		378	0.0378
High Pb Bumped Semiconductor D		Glass	Silicon, doped	-		0.0998811	g	891000	89.1		37426	3.7426

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/MC7448HX1250ND_IPC1752_v11.xml

http://www.freescale.com/mcds/MC7448HX1250ND_IPC1752A.xml