PART INFORMATION

Mfg Item Number	MPXM2102GS
Mfg Item Name	SNSR M-PAK 05 PORTED

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2011-11-16
Response Document ID	0885K50010S207A1.18
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	e4
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MPXM2102GS
Mfg Item Name	SNSR M-PAK 05 PORTED
Version	ALL
Weight	0.527800
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	
Peak Processing Temperature	250 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	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%
Non-Conductive Epoxy/Adhesive	0.0041						g					
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Silicone gum	67762-94-1		0.00004233	g	10324	1.0324		80	0.008
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated	68083-18-1		0.00050394	g	122911	12.2911		954	0.0954
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.00161258	g	393313	39.3313		3055	0.3055
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.00090708	g	221239	22.1239		1718	0.1718
Non-Conductive Epoxy/Adhesive		Glass	D4 and HMDZ treated Silicon Dioxide	68937-51-9		0.00060472	g	147493	14.7493		1145	0.1145
Non-Conductive Epoxy/Adhesive		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.00038299	g	93412	9.3412		725	0.0725
Non-Conductive Epoxy/Adhesive		Metals	Titanium (IV) Oxide	13463-67-7		0.00004636	g	11308	1.1308		87	0.0087
Cap/Cover	0.0766						g					
Cap/Cover		Metals	Aluminum, metal and alloys	7429-90-5		0.00020445	g	2669	0.2669		387	0.0387
Cap/Cover		Metals	Chromium, metal and alloys	7440-47-3		0.013113	g	171188	17.1188		24844	2.4844
Cap/Cover		Metals	Copper, metal and alloys	7440-50-8		0.00000483	g	63	0.0063		9	0.0009
Cap/Cover		Solvents, additives, and other materials	Sulfur	7704-34-9		0.0000154	g	201	0.0201		29	0.0029
Cap/Cover		Solvents, additives, and other materials	Nitrogen peroxide	10102-44-0		0.00023141	g	3021	0.3021		438	0.0438
Cap/Cover		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00017358	g	2266	0.2266		328	0.0328
Cap/Cover		Solvents, additives, and other materials	Silicon	7440-21-3		0.00034707	g	4531	0.4531		657	0.0657
Cap/Cover		Metals	Iron, metal and alloys	7439-89-6		0.05592288	g	730064	73.0064		105954	10.5954
Cap/Cover		Metals	Manganese, metal and alloys	7439-96-5		0.00173553	g	22657	2.2657		3288	0.3288
Cap/Cover		Nickel (external applications only)	Nickel	7440-02-0		0.00327825	g	42797	4.2797		6211	0.6211
Cap/Cover		Metals	Titanium (IV) Oxide	13463-67-7		0.00131132	g	17119	1.7119		2484	0.2484
Cap/Cover		Solvents, additives, and other materials	Carbon	7440-44-0		0.00026228	g	3424	0.3424		496	0.0496
Port	0.141						g					
Port		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.08403036	g	595960	59.596		159208	15.9208
Port		Glass	Proprietary Material-Other glass compounds (without lead, chromium, cadmium or mercury)	-		0.05696964	g	404040	40.404		107937	10.7937
Bonding Wire	0.0005						g					
Bonding Wire		Metals	Gold, metal and alloys	7440-57-5		0.0005	g	1000000	100		947	0.0947
Gel Die Encapsulant	0.0155						g					
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.01474082	g	951021	95.1021		27928	2.7928
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Cyclosiloxanes	70900-21-9		0.00004745	g	3061	0.3061		89	0.0089
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Siloxane	69430-24-6		0.00071173	g	45918	4.5918		1348	0.1348
Copper Lead Frame	0.2731						g					
Copper Lead Frame		Metals	Copper, metal and alloys	7440-50-8		0.1232462	g	451286	45.1286		233530	23.353
Copper Lead Frame		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.00712818	g	26101	2.6101		13505	1.3505
Copper Lead Frame		Metals	Gold, metal and alloys	7440-57-5		0.00031161	g	1141	0.1141		590	0.059
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00010378	g	380	0.038		196	0.0196
Copper Lead Frame		Metals	Iron, metal and alloys	7439-89-6		0.00297051	g	10877	1.0877		5628	0.5628
Copper Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.00356778	g	13064	1.3064		6759	0.6759
Copper Lead Frame		Metals	Palladium, metal and alloys	7440-05-3		0.00017315	g	634	0.0634		328	0.0328
Copper Lead Frame		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.04277101	g	156613	15.6613		81036	8.1036
Copper Lead Frame		Glass	Fibrous-glass-wool	65997-17-3		0.0926702	g	339327	33.9327		175578	17.5578
Copper Lead Frame		Metals	Zinc, metal and alloys	7440-66-6		0.00015758	g	577	0.0577		298	0.0298
Bonding Agent	0.0118						g					
Bonding Agent		Metals	Proprietary Material-Other aluminum compounds	-		0.00531	g	450000	45		10060	1.006
Bonding Agent		Solvents, additives, and other materials	Other guanidine compounds	-		0.000295	g	25000	2.5		558	0.0558
Bonding Agent		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.000295	g	25000	2.5		558	0.0558
Bonding Agent		Plastics/polymers	Other phenolic resins	-		0.0059	g	500000	50		11178	1.1178
Silicon Semiconductor Die	0.0052						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000104	g	20000	2		197	0.0197
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.005096	g	980000	98		9655	0.9655

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/MPXM2102GS_IPC1752_v11.xml

http://www.freescale.com/mcds/MPXM2102GS_IPC1752A.xml