Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MPXV2050GP
Mfg Item Name	SENSOR 8PIN GP

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2010-10-19
Response Document ID	0848K50010S522M1.0
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	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e4
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	MPXV2050GP
Mfg Item Name	SENSOR 8PIN GP
Version	ALL
Weight	1.755100
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	
Peak Processing Temperature	245 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%
Cap/Cover	0.1958						g					
Cap/Cover		Metals	Chromium, metal and alloys	7440-47-3		0.03528629	g	180216	18.0216		20105	2.0105
Cap/Cover		Solvents, additives, and other materials	Sulfur	7704-34-9		0.00005874	g	300	0.03		33	0.0033
Cap/Cover		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00007832	g	400	0.04		44	0.0044
Cap/Cover		Solvents, additives, and other materials	Silicon	7440-21-3		0.00147026	g	7509	0.7509		837	0.0837
Cap/Cover		Metals	Iron, metal and alloys	7439-89-6		0.15694604	g	801563	80.1563		89422	8.9422
Cap/Cover		Metals	Manganese, metal and alloys	7439-96-5		0.00196035	g	10012	1.0012		1116	0.1116
Non-Conductive Epoxy/Adhesive	0.002						g					
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Silicone gum	67762-94-1		0.00002065	g	10324	1.0324		11	0.0011
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated	68083-18-1		0.00024582	g	122911	12.2911		140	0.014
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.00078662	g	393313	39.3313		448	0.0448
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.00044248	g	221239	22.1239		252	0.0252
Non-Conductive Epoxy/Adhesive		Glass	D4 and HMDZ treated Silicon Dioxide	68937-51-9		0.00029499	g	147493	14.7493		168	0.0168
Non-Conductive Epoxy/Adhesive		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.00018682	g	93412	9.3412		106	0.0106
Non-Conductive Epoxy/Adhesive		Metals	Titanium (IV) Oxide	13463-67-7		0.00002262	g	11308	1.1308		12	0.0012
Port	0.6882						g					
Port		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.41013967	g	595960	59.596		233684	23.3684
Port		Glass	Proprietary Material-Other glass compounds (without lead, chromium, cadmium or mercury)	-		0.27806033	g	404040	40.404		158429	15.8429
Bonding Wire	0.0011						g					
Bonding Wire		Metals	Gold, metal and alloys	7440-57-5		0.0011	g	1000000	100		626	0.0626
Gel Die Encapsulant	0.0368						g					
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.03499758	g	951021	95.1021		19940	1.994
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Cyclosiloxanes	70900-21-9		0.00011264	g	3061	0.3061		64	0.0064
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Siloxane	69430-24-6		0.00168978	g	45918	4.5918		962	0.0962
Copper Lead Frame	0.796						g					
Copper Lead Frame		Metals	Copper, metal and alloys	7440-50-8		0.44078739	g	553753	55.3753		251164	25.1164
Copper Lead Frame		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.01677331	g	21072	2.1072		9556	0.9556
Copper Lead Frame		Metals	Gold, metal and alloys	7440-57-5		0.00062645	g	787	0.0787		356	0.0356
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00036855	g	463	0.0463		209	0.0209
Copper Lead Frame		Metals	Iron, metal and alloys	7439-89-6		0.01053267	g	13232	1.3232		6001	0.6001
Copper Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.00659327	g	8283	0.8283		3756	0.3756
Copper Lead Frame		Metals	Palladium, metal and alloys	7440-05-3		0.00032318	g	406	0.0406		184	0.0184
Copper Lead Frame		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.10087469	g	126727	12.6727		57475	5.7475
Copper Lead Frame		Glass	Fibrous-glass-wool	65997-17-3		0.2185617	g	274575	27.4575		124529	12.4529
Copper Lead Frame		Metals	Zinc, metal and alloys	7440-66-6		0.00055879	g	702	0.0702		318	0.0318
Bonding Agent	0.0207						g					
Bonding Agent		Metals	Proprietary Material-Other aluminum compounds	-		0.009315	g	450000	45		5307	0.5307
Bonding Agent		Solvents, additives, and other materials	Other guanidine compounds	-		0.0005175	g	25000	2.5		294	0.0294
Bonding Agent		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.0005175	g	25000	2.5		294	0.0294
Bonding Agent		Plastics/polymers	Other phenolic resins	-		0.01035	g	500000	50		5897	0.5897
Silicon Semiconductor Die	0.0145						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.00029	g	20000	2		165	0.0165
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.01421	g	980000	98		8096	0.8096

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/MPXV2050GP_IPC1752_v11.xml

http://www.freescale.com/mcds/MPXV2050GP_IPC1752A.xml