PART INFORMATION	
Mfg Item Number	MRFX1K80GNR5
Mfg Item Name	OM-1230G-4L

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-05-17
Response Document ID	00LAK00220D020A1.6
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	e3
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	MRFX1K80GNR5
Mfg Item Name	OM-1230G-4L
Version	ALL
Weight	5.281400
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%
Bonding Wire, Aluminum	0.0044						g					
Bonding Wire, Aluminum		Metals	Aluminum, metal	7429-90-5		0.0044	g	1000000	100		833	0.0833
Lead Frame Plating	0.0385						g					
Lead Frame Plating		Lead/Lead Compounds	Lead	7439-92-1		0.0000077	g	200	0.02		1	0.0001
Lead Frame Plating		Metals	Tin, metal	7440-31-5		0.0384923	g	999800	99.98		7288	0.7288
Die Encapsulant	1.5083						g					
Die Encapsulant		Solvents, additives, and other materials	Benzophenonetetracarboxylic Acid Dianhydride	2421-28-5		0.11287816	g	74838	7.4838		21372	2.1372
Die Encapsulant		Plastics/polymers	Poly[(o-cresyl glycidyl ether)-co-formaldehyde]	29690-82-2		0.04515096	g	29935	2.9935		8549	0.8549
Die Encapsulant		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.04515096	g	29935	2.9935		8549	0.8549
Die Encapsulant		Metals	Magnesium, metal	7439-95-4		0.00269232	g	1785	0.1785		509	0.0509
Die Encapsulant		Solvents, additives, and other materials	Other organic Silicon Compounds	-		0.008086	g	5361	0.5361		1531	0.1531
Die Encapsulant		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.04515096	g	29935	2.9935		8549	0.8549
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		1.20403968	g	798276	79.8276		227977	22.7977
Die Encapsulant		Plastics/polymers	Poly[(phenyl glycidyl ether)-co-dicyclopentadiene]	119345-05-0		0.04515096	g	29935	2.9935		8549	0.8549
Copper Lead Frame	0.606						g					
Copper Lead Frame		Metals	Copper, metal	7440-50-8		0.58415673	g	963955	96.3955		110606	11.0606
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus, elemental (not containing red allotrope)	7723-14-0		0.00049995	g	825	0.0825		94	0.0094
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.014241	g	23500	2.35		2696	0.2696
Copper Lead Frame		Lead/Lead Compounds	Lead	7439-92-1		0.00010302	g	170	0.017		19	0.0019
Copper Lead Frame		Metals	Silver, metal	7440-22-4		0.00606	g	10000	1		1147	0.1147
Copper Lead Frame		Metals	Tin, metal	7440-31-5		0.0001818	g	300	0.03		34	0.0034
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.0007575	g	1250	0.125		143	0.0143
Heat Sink	3.1205						g					
Heat Sink		Metals	Cobalt, metal	7440-48-4		0.01403601	g	4498	0.4498		2657	0.2657
Heat Sink		Metals	Copper, metal	7440-50-8		3.06654031	g	982708	98.2708		580640	58.064
Heat Sink		Metals	Gold, metal	7440-57-5		0.01205449	g	3863	0.3863		2282	0.2282
Heat Sink		Nickel (external applications only)	Nickel	7440-02-0		0.0248267	g	7956	0.7956		4700	0.47
Heat Sink		Metals	Zirconium, metal	7440-67-7		0.00304249	g	975	0.0975		576	0.0576
Silicon Semiconductor Die	0.0037						g					
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00003774	g	10200	1.02		7	0.0007
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00007325	g	19796	1.9796		13	0.0013
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.00358901	g	970004	97.0004		679	0.0679

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/MRFX1K80GNR5_IPC1752_v11.xml

http://www.freescale.com/mcds/MRFX1K80GNR5_IPC1752A.xml