PART INFORMATION

Mfg Item Number	MPXY8500DK016T1
Mfg Item Name	QFN-EP 32 9SQ*2.3P0.65

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2014-01-20
Response Document ID	6311K11243D044A1.11
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	No
HalogenFree	No
Plating Indicator	e4
EU RoHS Exemption(s)	7c-I

MANUFACTURING

Mfg Item Number	MPXY8500DK016T1
Mfg Item Name	QFN-EP 32 9SQ*2.3P0.65
Version	ALL
Weight	0.007200
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	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	4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions
Supplier Acceptance	Accepted
Signature	Daniel Binyon
Exemption List Version	2012/51/EU
Exemptions in this part	7c-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
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%
Epoxy Die Attach	0.0008						g					
Epoxy Die Attach		Plastics/polymers	Plastic: SI - Silicone Rubber	-		0.000632	g	790000	79		87777	8.7777
Epoxy Die Attach		Glass	Dimethyl silicone polymer with silica	67762-90-7		0.00016	g	200000	20		22222	2.2222
Epoxy Die Attach		Metals	Other platinum compounds	-		0.000008	g	10000	1		1111	0.1111
Bonding Agent	0.0008						g					
Bonding Agent		Solvents, additives, and other materials	Fluorosilicone	67923-24-4		0.00072	g	900000	90		100000	10
Bonding Agent		Plastics/polymers	Perfluoropolyethers	-		0.00008	g	100000	10		11111	1.1111
Non-Conductive Epoxy/Adhesive	0.0001						g					
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Polytetrafluoroethylene	9002-84-0		0.000095	g	950000	95		13194	1.3194
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000005	g	50000	5		694	0.0694
Non-conductive Epoxy	0.0001						g					
Non-conductive Epoxy		Plastics/polymers	Polytetrafluoroethylene	9002-84-0		0.00007	g	700000	70		9722	0.9722
Non-conductive Epoxy		Solvents, additives, and other materials	Fluorosilicone monomer (fluorosilicone rubber)	2374-14-3		0.00003	g	300000	30		4166	0.4166
Bonding Wire	0.0001						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0001	g	1000000	100		13888	1.3888
Gel Die Encapsulant	0.0047						g					
Gel Die Encapsulant		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.00282	g	600000	60		391683	39.1683
Gel Die Encapsulant		Solvents, additives, and other materials	Ethylbenzene	100-41-4		0.000047	g	10000	1		6527	0.6527
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6		0.001692	g	360000	36		235000	23.5
Gel Die Encapsulant		Solvents, additives, and other materials	Tetra (trimethylsiloxy) silane	3555-47-3		0.000141	g	30000	3		19583	1.9583
Lid	0.0002						g					
Lid		Metals	Chromium, metal	7440-47-3		0.00003322	g	166103	16.6103		4613	0.4613
Lid		Solvents, additives, and other materials	Sulfur	7704-34-9		0.00000001	g	32	0.0032		1	0.0001
Lid		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00000005	g	229	0.0229		6	0.0006
Lid		Solvents, additives, and other materials	Silicon	7440-21-3		0.000001	g	5004	0.5004		138	0.0138
Lid		Metals	Iron, metal	7439-89-6		0.00016427	g	821398	82.1398		22815	2.2815
Lid		Metals	Manganese, metal	7439-96-5		0.00000134	g	6696	0.6696		186	0.0186
Lid		Solvents, additives, and other materials	Carbon	7440-44-0		0.00000011	g	538	0.0538		15	0.0015
Silicon Semiconductor Die	0.0001						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000002	g	20000	2		277	0.0277
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.000098	g	980000	98		13611	1.3611
Copper Lead Frame	0.0001						g					
Copper Lead Frame		Metals	Copper, metal	7440-50-8		0.0000791	g	790891	79.0891		10986	1.0986
Copper Lead Frame		Metals	Gold, metal	7440-57-5		0.00000001	g	123	0.0123		1	0.0001
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00000002	g	197	0.0197		2	0.0002
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.00000185	g	18540	1.854		256	0.0256
Copper Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.00000094	g	9443	0.9443		130	0.013
Copper Lead Frame		Metals	Palladium, metal	7440-05-3		0.00000008	g	821	0.0821		11	0.0011
Copper Lead Frame		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.00001799	g	179882	17.9882		2498	0.2498
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.00000001	g	103	0.0103		1	0.0001
Pb Glass Frit Semiconductor Di	0.0001				7c-I		g					
Pb Glass Frit Semiconductor Di		Lead/Lead Compounds	Lead (II) titanate	12060-00-3		0.00000104	g	10381	1.0381		144	0.0144
Pb Glass Frit Semiconductor Di		Glass	Fibrous-glass-wool	65997-17-3		0.00000099	g	9943	0.9943		137	0.0137
Pb Glass Frit Semiconductor Di		Solvents, additives, and other materials	2,2,4-trimethyl-1,3-pentanediol-1-monoisobutyrate	25265-77-4		0.00000099	g	9943	0.9943		137	0.0137
Pb Glass Frit Semiconductor Di		Glass	Silicon, doped	-		0.00009698	g	969733	96.9733		13469	1.3469
Silicon Semiconductor Die	0.0001						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000002	g	20000	2		277	0.0277
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.000098	g	980000	98		13611	1.3611

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/MPXY8500DK016T1_IPC1752_v11.xml

http://www.freescale.com/mcds/MPXY8500DK016T1_IPC1752A.xml