

PART INFORMATION		
Mfg Item Number		MPXV8500DK016T1
Mfg Item Name		32_QFN-EP MAP_9X9_0.65P
SUPPLIER		
Company Name		Freescale Semiconductor Inc
Company Unique ID		14-141-7928
Response Date		2014-01-20
Response Document ID		00BHK11243D044A1.8
Contact Name		Freescale Semiconductor Inc
Contact Title		Product Technical Support
Contact Phone		1-800-521-6274
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Authorized Representative		Daniel Binyon
Representative Title		EPP Customer Response
Representative Phone		512-895-3406
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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		MPXV8500DK016T1
Mfg Item Name		32_QFN-EP MAP_9X9_0.65P
Version		ALL
Weight		0.395000
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	0.002						g					
Epoxy Die Attach		Plastics/polymers	Plastic: SI - Silicone Rubber	-		0.00158	g	790000	79		4000	0.4
Epoxy Die Attach		Glass	Dimethyl silicone polymer with silica	67762-90-7		0.0004	g	200000	20		1012	0.1012
Epoxy Die Attach		Metals	Other platinum compounds	-		0.00002	g	10000	1		50	0.005
Bonding Agent	0.007						g					
Bonding Agent		Solvents, additives, and other materials	Fluorosilicone	67923-24-4		0.0063	g	900000	90		15949	1.5949
Bonding Agent		Plastics/polymers	Perfluoropolyethers	-		0.0007	g	100000	10		1772	0.1772
Non-Conductive Epoxy/Adhesive	0.0003						g					
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Polytetrafluoroethylene	9002-84-0		0.000285	g	950000	95		721	0.0721
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.000015	g	50000	5		37	0.0037
Non-conductive Epoxy	0.0003						g					
Non-conductive Epoxy		Plastics/polymers	Polytetrafluoroethylene	9002-84-0		0.00021	g	700000	70		531	0.0531
Non-conductive Epoxy		Solvents, additives, and other materials	Fluorosilicone monomer (fluorosilicone rubber)	2374-14-3		0.00009	g	300000	30		227	0.0227
Bonding Wire	0.0224						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0224	g	1000000	100		56708	5.6708
Gel Die Encapsulant	0.047						g					
Gel Die Encapsulant		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.0282	g	600000	60		71392	7.1392
Gel Die Encapsulant		Solvents, additives, and other materials	Ethylbenzene	100-41-4		0.00047	g	10000	1		1189	0.1189
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethylvinylated and trimethylated silica	68988-89-6		0.01692	g	360000	36		42835	4.2835
Gel Die Encapsulant		Solvents, additives, and other materials	Tetra (trimethylsiloxy) silane	3555-47-3		0.00141	g	30000	3		3569	0.3569
Lid	0.13						g					
Lid		Metals	Chromium, metal	7440-47-3		0.02159339	g	166103	16.6103		54666	5.4666
Lid		Solvents, additives, and other materials	Sulfur	7704-34-9		0.00000416	g	32	0.0032		10	0.001
Lid		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00002977	g	229	0.0229		75	0.0075
Lid		Solvents, additives, and other materials	Silicon	7440-21-3		0.00065052	g	5004	0.5004		1646	0.1646
Lid		Metals	Iron, metal	7439-89-6		0.10678174	g	821398	82.1398		270333	27.0333
Lid		Metals	Manganese, metal	7439-96-5		0.00087048	g	6696	0.6696		2203	0.2203
Lid		Solvents, additives, and other materials	Carbon	7440-44-0		0.00006994	g	538	0.0538		177	0.0177
Silicon Semiconductor Die	0.004						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00008	g	20000	2		202	0.0202
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.00392	g	980000	98		9924	0.9924
Copper Lead Frame	0.1708						g					
Copper Lead Frame		Metals	Copper, metal	7440-50-8		0.13508418	g	790891	79.0891		342002	34.2002
Copper Lead Frame		Metals	Gold, metal	7440-57-5		0.00002101	g	123	0.0123		53	0.0053
Copper Lead Frame		Solvents, additives, and other materials	Phosphorus	7723-14-0		0.00003365	g	197	0.0197		85	0.0085
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.00316663	g	18540	1.854		8016	0.8016
Copper Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.00161286	g	9443	0.9443		4083	0.4083
Copper Lead Frame		Metals	Palladium, metal	7440-05-3		0.00014023	g	821	0.0821		355	0.0355
Copper Lead Frame		Plastics/polymers	Polyphenylene Sulfide (PPS)	26125-40-6		0.03072385	g	179882	17.9882		77781	7.7781
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.00001759	g	103	0.0103		44	0.0044
Pb Glass Frit Semiconductor Di	0.0072				7c-1		g					
Pb Glass Frit Semiconductor Di		Lead/Lead Compounds	Lead (II) titanate	12060-00-3		0.00007474	g	10381	1.0381		189	0.0189
Pb Glass Frit Semiconductor Di		Glass	Fibrous-glass-wool	65997-17-3		0.00007159	g	9943	0.9943		181	0.0181
Pb Glass Frit Semiconductor Di		Solvents, additives, and other materials	2,2,4-trimethyl-1,3-pentanediol-1-monoisobutyrate	25265-77-4		0.00007159	g	9943	0.9943		181	0.0181
Pb Glass Frit Semiconductor Di		Glass	Silicon, doped	-		0.00698208	g	969733	96.9733		17676	1.7676
Silicon Semiconductor Die	0.004						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00008	g	20000	2		202	0.0202
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.00392	g	980000	98		9924	0.9924

LINKS	
MCD LINK	
Freescal website	http://www.freescal.com
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
RoHS signed letter	http://www.freescal.com/files/abstract/corporate/ehs_epp/ENV_ROHS_Freescal_Response.pdf
China RoHS	http://www.freescal.com/chinarohs
REACH signed letter	http://www.freescal.com/files/abstract/corporate/ehs_epp/ENV_REACH_Freescal_Response.pdf
ELV signed letter	http://www.freescal.com/files/abstract/corporate/ehs_epp/ENV_ELV_Freescal_Reponse.pdf
Conflict Minerals statement	http://www.freescal.com/files/abstract/corporate/ehs_epp/ENV_CONFLICT_METAL_Freescal_Response.pdf
FREESCALE ENVIRONMENTAL INFORMATION	
EPP website	http://www.freescal.com/epp
FAQ	http://www.freescal.com/webapp/sps/site/overview.jsp?code=ENVIRON_FAQ
Technical Service Request	https://www.freescal.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.freescal.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf

IPC1752 XML LINKS

http://www.freescale.com/mcds/MPXV8500DK016T1_IPC1752_v11.xml

http://www.freescale.com/mcds/MPXV8500DK016T1_IPC1752A.xml