Freescale Semiconductor Inc

PART INFORMATION	
Mfg Item Number	MPX2202DP
Mfg Item Name	4 PIN UNIBODY DUAL PORT

SUPPLIER	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2013-06-19
Response Document ID	0874K50010S187A1.21
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	No
Plating Indicator	e4
EU RoHS Exemption(s)	

MANUFACTURING	
Mfg Item Number	MPX2202DP
Mfg Item Name	4 PIN UNIBODY DUAL PORT
Version	ALL
Weight	5.057850
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	
Peak Processing Temperature	
Max Time at Peak Temperature	
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
Exemptions in this part	
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

SubPart	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%		REACHPPM	REACH%
Die Encapsulant	1.01915						g					
Die Encapsulant		Flame Retardants	Antimony trioxide	1309-64-4		0.024549	g	24088	2.4088		4853	0.4853
Die Encapsulant		Flame Retardants	Bromophenol, formaldehyde, epichlorohydrin polymer	68541-56-0		0.032732	g	32117	3.2117		6471	0.6471
Die Encapsulant		Plastics/polymers	Formaldehyde, polymer with 2-methylphenol, glycidyl ether	64425-89-4		0.163659	g	160584	16.0584		32357	3.2357
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.002813	g	2760	0.276		556	0.0556
Die Encapsulant		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.000013	g	13	0.0013		2	0.0002
Die Encapsulant		Solvents, additives, and other materials	(3,4-Epoxycyclohexyl)ethyltrimethoxysilane	3388-04-3		0.003682	g	3613	0.3613		727	0.0727
Die Encapsulant		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.09615	g	94343	9.4343		19010	1.901
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		0.695552	g	682482	68.2482		137521	13.7521
Non-Conductive Epoxy/Adhesive	0.0082						g					
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Silicone gum	67762-94-1		0.000085	g	10324	1.0324		16	0.0016
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and Silicones, di-Me, Me vinyl, vinyl group-terminated	68083-18-1		0.001008	g	122911	12.2911		199	0.0199
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Siloxanes and silicones, di-Me, vinyl group-terminated	68083-19-2		0.003225	g	393313	39.3313		637	0.0637
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.001814	g	221239	22.1239		358	0.0358
Non-Conductive Epoxy/Adhesive		Glass	D4 and HMDZ treated Silicon Dioxide	68937-51-9		0.001209	g	147493	14.7493		239	0.0239
Non-Conductive Epoxy/Adhesive		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.000766	g	93412	9.3412		151	0.0151
Non-Conductive Epoxy/Adhesive		Metals	Titanium (IV) Oxide	13463-67-7		0.000093	g	11308	1.1308		18	0.0018
Port	3.4436						g					
Port		Metals	Antimony, metal	7440-36-0		0.103308	g	30000	3		20425	2.0425
Port		Flame Retardants	Antimony trioxide	1309-64-4		0.103308	g	30000	3		20425	2.0425
Port		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.01894	g	5500	0.55		3744	0.3744
Port		Plastics/polymers	Polybutylene terephthalate (PBT)	30965-26-5		2.529324	g	734500	73.45		500092	50.0092
Port		Glass	Fibrous-glass-wool	65997-17-3		0.68872	g	200000	20		136170	13.617
Bonding Wire	0.0005						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0005	g	1000000	100		98	0.0098
Gel Die Encapsulant	0.1136						g					
Gel Die Encapsulant		Solvents, additives, and other materials	Proprietary Material-Other siloxanes and silicones	-		0.108036	g	951021	95.1021		21360	2.136
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Cyclosiloxanes	70900-21-9		0.000348	g	3061	0.3061		68	0.0068
Gel Die Encapsulant		Solvents, additives, and other materials	Dimethyl Siloxane	69430-24-6		0.005216	g	45918	4.5918		1031	0.1031
Copper Lead Frame	0.161						g					
Copper Lead Frame		Metals	Copper, metal	7440-50-8		0.155901	g	968328	96.8328		30823	3.0823
Copper Lead Frame		Metals	Gold, metal	7440-57-5		0.000016	g	100	0.01		3	0.0003
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.003488	g	21663	2.1663		689	0.0689
Copper Lead Frame		Metals	Lead, metallic lead and lead alloys	7439-92-1		0.000003	g	16	0.0016		0	0
Copper Lead Frame		Metals	Nickel, metal	7440-02-0		0.001342	g	8336	0.8336		265	0.0265
Copper Lead Frame		Metals	Palladium, metal	7440-05-3		0.000068	g	424	0.0424		13	0.0013
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.000182	g	1133	0.1133		35	0.0035
Bonding Agent	0.3073						g					
Bonding Agent		Metals	Proprietary Material-Other aluminum compounds	-		0.138285	g	450000	45		27340	2.734
Bonding Agent		Solvents, additives, and other materials	Other guanidine compounds	-		0.007683	g	25000	2.5		1519	0.1519
Bonding Agent		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.007683	g	25000	2.5		1519	0.1519
Bonding Agent		Plastics/polymers	Other phenolic resins	-		0.153649	g	500000	50		30378	3.0378
Silicon Semiconductor Die	0.0045						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.00009	g	20000	2		17	0.0017
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.00441	g	980000	98		871	0.0871

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 v0.9 Form	http://www.freescale.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v0.9_MCD_Template.pdf
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/MPX2202DP_IPC1752_v09.xml

http://www.freescale.com/mcds/MPX2202DP_IPC1752_v11.xml

http://www.freescale.com/mcds/MPX2202DP_IPC1752A.xml