PART INFORMATION

Mfg Item Number	MPC555LFMZP40
Mfg Item Name	PBGA 272 27*27*1.25P1.27

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2015-01-01
Response Document ID	5065K00021D008A1.32
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	No
Pb Free	No
HalogenFree	No
Plating Indicator	e0
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MPC555LFMZP40
Mfg Item Name	PBGA 272 27*27*1.25P1.27
Version	ALL
Weight	2.615100
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	3
Peak Processing Temperature	235 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	3 - Item(s) does not contain RoHS restricted substances per the definition above except for lead in solders and selected exemptions, if any
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%
Epoxy Die Attach	0.027						g					
Epoxy Die Attach		Solvents, additives, and other materials	1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]	38668-46-1		0.00022818	g	8451	0.8451		87	0.0087
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00349863	g	129579	12.9579		1337	0.1337
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6		0.00022818	g	8451	0.8451		87	0.0087
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.02304501	g	853519	85.3519		8812	0.8812
Die Encapsulant	1.1504						g					
Die Encapsulant		Antimony/Antimony Compounds	Antimony trioxide	1309-64-4		0.01160524	g	10088	1.0088		4437	0.4437
Die Encapsulant		Solvents, additives, and other materials	Tetraphenylphosphonium tetraphenylborate	15525-15-2		0.00290131	g	2522	0.2522		1109	0.1109
Die Encapsulant		Flame Retardants	Bromophenol, formaldehyde, epichlorohydrin polymer	68541-56-0		0.01276599	g	11097	1.1097		4881	0.4881
Die Encapsulant		Plastics/polymers	2,5-Di-tert-butyl-1,4-phenylenebis(oxymethyloxirane)	64777-22-6		0.02959404	g	25725	2.5725		11316	1.1316
Die Encapsulant		Plastics/polymers	Benzaldehyde, 2-hydroxy-, polymer with (chloromethyl)oxirane and phenol	120206-26-0		0.02959404	g	25725	2.5725		11316	1.1316
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00319121	g	2774	0.2774		1220	0.122
Die Encapsulant		Lead/Lead Compounds	Lead	7439-92-1		0.00001496	g	13	0.0013		5	0.0005
Die Encapsulant		Metals	Magnesium Aluminum Hydroxide Carbonate	11097-59-9		0.00116075	g	1009	0.1009		443	0.0443
Die Encapsulant		Solvents, additives, and other materials	(3,4-Epoxycyclohexyl)ethyltrimethoxysilane	3388-04-3		0.00232151	g	2018	0.2018		887	0.0887
Die Encapsulant		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.04758169	g	41361	4.1361		18194	1.8194
Die Encapsulant		Glass	Silicon dioxide	7631-86-9		0.50483463	g	438834	43.8834		193046	19.3046
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		0.50483463	g	438834	43.8834		193066	19.3066
Organic Substrate	0.7999						g					
Organic Substrate		Metals	Barium sulfate	7727-43-7		0.04569909	g	57131	5.7131		17475	1.7475
Organic Substrate		Metals	Copper, metal	7440-50-8		0.13345852	g	166844	16.6844		51033	5.1033
Organic Substrate		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.06147152	g	76849	7.6849		23506	2.3506
Organic Substrate		Metals	Gold, metal	7440-57-5		0.00173898	g	2174	0.2174		664	0.0664
Organic Substrate		Solvents, additives, and other materials	Other halogenated organic compounds	-		0.00032316	g	404	0.0404		123	0.0123
Organic Substrate		Nickel (external applications only)	Nickel	7440-02-0		0.00930124	g	11628	1.1628		3556	0.3556
Organic Substrate		Plastics/polymers	BT Resin (CAS# 13676-54-5/25722-66-1) [Brominated Compound]	-		0.23254133	g	290713	29.0713		88922	8.8922
Organic Substrate		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.30816786	g	385258	38.5258		117841	11.7841
Organic Substrate		Solvents, additives, and other materials	Proprietary Material-Other Aromatic carbonyl compounds	-		0.0071983	g	8999	0.8999		2752	0.2752
Bonding Wire	0.0167						g					
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0167	g	1000000	100		6385	0.6385
Solder Balls - Low Lead	0.5311						g					
Solder Balls - Low Lead		Metals	Aluminum, metal	7429-90-5		0.00000425	g	8	0.0008		1	0.0001
Solder Balls - Low Lead		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.00000372	g	7	0.0007		1	0.0001
Solder Balls - Low Lead		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00001062	g	20	0.002		4	0.0004
Solder Balls - Low Lead		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00000584	g	11	0.0011		2	0.0002
Solder Balls - Low Lead		Metals	Copper, metal	7440-50-8		0.00000531	g	10	0.001		2	0.0002
Solder Balls - Low Lead		Metals	Iron, metal	7439-89-6		0.00000903	g	17	0.0017		3	0.0003
Solder Balls - Low Lead		Lead/Lead Compounds	Lead	7439-92-1		0.19120556	g	360018	36.0018		73115	7.3115
Solder Balls - Low Lead		Nickel (external applications only)	Nickel	7440-02-0		0.00001965	g	37	0.0037		7	0.0007
Solder Balls - Low Lead		Metals	Silver, metal	7440-22-4		0.01057845	g	19918	1.9918		4045	0.4045
Solder Balls - Low Lead		Metals	Tin, metal	7440-31-5		0.32925385	g	619947	61.9947		125904	12.5904
Solder Balls - Low Lead		Metals	Zinc, metal	7440-66-6		0.00000372	g	7	0.0007		1	0.0001
Silicon Semiconductor Die	0.09						g					
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%).	-		0.0018	g	20000	2		688	0.0688
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.0882	g	980000	98		33727	3.3727

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/MPC555LFMZP40_IPC1752_v11.xml

http://www.freescale.com/mcds/MPC555LFMZP40_IPC1752A.xml