PART INFORMATION

Mfg Item Number	MPC5200VR400B
Mfg Item Name	PBGAPGE 272 27SQ1.2P1.27

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-03-16
Response Document ID	5192K11015D015A1.40
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	Yes
Plating Indicator	e1
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MPC5200VR400B
Mfg Item Name	PBGAPGE 272 27SQ1.2P1.27
Version	ALL
Weight	2.545200
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%
Die Encapsulant	1.1504						g					
Die Encapsulant		Metals	Aluminum, metal	7429-90-5		0.03554276	g	30896	3.0896		13964	1.3964
Die Encapsulant		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00000115	g	1	0.0001		0	0
Die Encapsulant		Cadmium/Cadmium Compounds	Cadmium	7440-43-9		0.00000115	g	1	0.0001		0	0
Die Encapsulant		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.03554276	g	30896	3.0896		13964	1.3964
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00355474	g	3090	0.309		1396	0.1396
Die Encapsulant		Lead/Lead Compounds	Lead	7439-92-1		0.00000115	g	1	0.0001		0	0
Die Encapsulant		Solvents, additives, and other materials	Other organic phosphorous compounds	-		0.00355474	g	3090	0.309		1396	0.1396
Die Encapsulant		Plastics/polymers	Proprietary Material-Other phenolic resins	-		0.06516096	g	56642	5.6642		25601	2.5601
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		1.00704059	g	875383	87.5383		395679	39.5679
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		89	0.0089
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5		0.00349863	g	129579	12.9579		1374	0.1374
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6		0.00022818	g	8451	0.8451		89	0.0089
Epoxy Die Attach		Metals	Silver, metal	7440-22-4		0.02304501	g	853519	85.3519		9054	0.9054
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		707	0.0707
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.0882	g	980000	98		34653	3.4653
Solder Balls - Lead Free	0.4612						g					
Solder Balls - Lead Free		Antimony/Antimony Compounds	Antimony (metallic)	7440-36-0		0.00000323	g	7	0.0007		1	0.0001
Solder Balls - Lead Free		Arsenic/Arsenic Compounds	Arsenic	7440-38-2		0.00000323	g	7	0.0007		1	0.0001
Solder Balls - Lead Free		Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.00000231	g	5	0.0005		0	0
Solder Balls - Lead Free		Metals	Copper, metal	7440-50-8		0.0032284	g	7000	0.7		1268	0.1268
Solder Balls - Lead Free		Metals	Iron, metal	7439-89-6		0.0000083	g	18	0.0018		3	0.0003
Solder Balls - Lead Free		Lead/Lead Compounds	Lead	7439-92-1		0.00002583	g	56	0.0056		10	0.001
Solder Balls - Lead Free		Metals	Silver, metal	7440-22-4		0.01734112	g	37600	3.76		6813	0.6813
Solder Balls - Lead Free		Metals	Tin, metal	7440-31-5		0.44058758	g	955307	95.5307		173105	17.3105
Organic Substrate	0.7999						g					
Organic Substrate		Metals	Barium sulfate	7727-43-7		0.01785057	g	22316	2.2316		7013	0.7013
Organic Substrate		Metals	Copper, metal	7440-50-8		0.53284058	g	666134	66.6134		209351	20.9351
Organic Substrate		Plastics/polymers	2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane	1675-54-3		0.00124544	g	1557	0.1557		489	0.0489
Organic Substrate		Plastics/polymers	Poly[(o-cresyl glycidyl ether)-co-formaldehyde]	29690-82-2		0.05319495	g	66502	6.6502		20900	2.09
Organic Substrate		Metals	Gold, metal	7440-57-5		0.00097348	g	1217	0.1217		382	0.0382
Organic Substrate		Solvents, additives, and other materials	1-cyanoguanidine	461-58-5		0.00024237	g	303	0.0303		95	0.0095
Organic Substrate		Solvents, additives, and other materials	1,1'-(methylenedi-p-phenylene)bismaleimide	13676-54-5		0.01595801	g	19950	1.995		6269	0.6269
Organic Substrate		Nickel (external applications only)	Nickel	7440-02-0		0.00672716	g	8410	0.841		2643	0.2643
Organic Substrate		Plastics/polymers	4,4'-Isopropylidenediphenol-1-chloro-2,3-epoxypropane concentrate	25068-38-6		0.05319495	g	66502	6.6502		20900	2.09
Organic Substrate		Glass	Fibrous-glass-wool	65997-17-3		0.08511096	g	106402	10.6402		33439	3.3439
Organic Substrate		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances.	-		0.00442745	g	5535	0.5535		1739	0.1739
Organic Substrate		Metals	Copper phthalocyanine	147-14-8		0.00014558	g	182	0.0182		57	0.0057
Organic Substrate		Plastics/polymers	Other Non-halogenated Epoxy resins	-		0.0279885	g	34990	3.499		10996	1.0996
Bonding Wire, PdCu	0.0167						g					
Bonding Wire, PdCu		Metals	Copper, metal	7440-50-8		0.0163827	g	981000	98.1		6436	0.6436
Bonding Wire, PdCu		Metals	Gold, metal	7440-57-5		0.0000167	g	1000	0.1		6	0.0006
Bonding Wire, PdCu		Metals	Palladium, metal	7440-05-3		0.0003006	g	18000	1.8		118	0.0118

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/MPC5200VR400B_IPC1752_v11.xml

http://www.freescale.com/mcds/MPC5200VR400B_IPC1752A.xml