

<b>PART INFORMATION</b>	
Mfg Item Number	MPL115A2
Mfg Item Name	LGA 8 3*5*1.25P0.8
<b>SUPPLIER</b>	
Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-06-04
Response Document ID	6435K50008S007A1.9
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
<b>DECLARATION</b>	
EU RoHS	Yes
Pb Free	No
HalogenFree	Yes
Plating Indicator	
EU RoHS Exemption(s)	7c-I
<b>MANUFACTURING</b>	
Mfg Item Number	MPL115A2
Mfg Item Name	LGA 8 3*5*1.25P0.8
Version	ALL
Weight	0.031300
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	1
Peak Processing Temperature	245 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	<p>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.</p>
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. piezoelectric devices, or in a glass or ceramic matrix compound
List of Freescale Accepted Exemptions	<p>6(a) : Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0.35% lead by weight</p> <p>6(b) : Lead as an alloying element in aluminium containing up to 0.4% lead by weight</p> <p>6(c) : Copper alloy containing up to 4% lead by weight</p> <p>7(a) : Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)</p> <p>7(b) : Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications</p> <p>7(c)-I : Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound</p> <p>7(c)-II : Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher</p> <p>7(c)-III : Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC</p> <p>7(c)-IV : Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors</p> <p>15 : Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages</p>

## MATERIAL COMPOSITION

Homogeneous Material	Weight	SubstanceClass	Substance	CAS	Exemption	SubstanceWeight	UoM	SubPart PPM	SubPart%	ARTICLE EPPM	ARTICLE%
Epoxy Die Attach	0.0002	Cadmium/Cadmium Compounds	Cadmium	7440-43-9	0	g	3	0.0003		0	0
Epoxy Die Attach		Plastics/polymers	Phenolic Polymer Resin, Epikote 155	9003-36-5	0.00001319	g	65969	6.5969		421	0.0421
Epoxy Die Attach		Lead/Lead Compounds	Lead	7439-92-1	0.00000002	g	104	0.0104		0	0
Epoxy Die Attach		Plastics/polymers	4,4'-Dihydroxydiphenyl	92-88-6	0.0000022	g	10995	1.0995		70	0.007
Epoxy Die Attach		Plastics/polymers	Phenol p-xylylene dimethyl ether copolymer	26834-02-6	0.0000022	g	10995	1.0995		70	0.007
Epoxy Die Attach		Metals	Silver, metal	7440-22-4	0.00018239	g	911934	91.1934		5827	0.5827
Silicon Semiconductor Die	0.004	Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-	0.00008	g	20000	2		2555	0.2555
Silicon Semiconductor Die		Glass	Silicon, doped	-	0.00392	g	980000	98		125239	12.5239
Organic Substrate	0.0085	Metals	Barium sulfate	7727-43-7	0.00021326	g	25089	2.5089		6813	0.6813
Organic Substrate		Metals	Copper, metal	7440-50-8	0.00309594	g	364229	36.4229		98911	9.8911
Organic Substrate		Plastics/polymers	Epikote 862	28064-14-4	0.00059811	g	70366	7.0366		19108	1.9108
Organic Substrate		Metals	Gold, metal	7440-57-5	0.00009805	g	11535	1.1535		3132	0.3132
Organic Substrate		Nickel (external applications only)	Nickel	7440-02-0	0.00047702	g	56120	5.612		15240	1.524
Organic Substrate		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4	0.00032357	g	38067	3.8067		10337	1.0337
Organic Substrate		Glass	Fibrous-glass-wool	65997-17-3	0.00198164	g	233158	23.3158		63317	6.3317
Organic Substrate		Glass	Silicon dioxide	7631-86-9	0.00017037	g	20643	2.0043		5443	0.5443
Organic Substrate		Metals	Aluminum Hydroxide	21645-51-2	0.0009707	g	114200	11.42		31012	3.1012
Organic Substrate		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-	0.00057114	g	67193	6.7193		18247	1.8247
Bonding Agent	0.0006	Plastics/polymers	Plastic: Si - Silicone Rubber	-	0.00047984	g	799734	79.9734		15330	1.533
Bonding Agent		Glass	Dimethyl silicone polymer with silica	67762-90-7	0.00011996	g	199933	19.9933		3832	0.3832
Bonding Agent		Metals	Other platinum compounds	-	0.0000002	g	333	0.0333		6	0.0006
Bonding Wire, Other	0.0001	Metals	Gold, metal	7440-57-5	0.000099	g	990000	99		3162	0.3162
Bonding Wire, Other		Metals	Palladium, metal	7440-05-3	0.000001	g	10000	1		31	0.0031
Cap/Cover	0.0137	Metals	Chromium, metal	7440-47-3	0.002466	g	180000	18		78785	7.8785
Cap/Cover		Metals	Copper, metal	7440-50-8	0.000274	g	20000	2		8753	0.8753
Cap/Cover		Metals	Iron, metal	7439-89-6	0.0091105	g	655000	66.5		291092	29.1092
Cap/Cover		Metals	Manganese, metal	7439-96-5	0.000137	g	10000	1		4376	0.4376
Cap/Cover		Metals	Molybdenum, metal	7439-98-7	0.0002095	g	15000	1.5		6565	0.6565
Cap/Cover		Nickel (external applications only)	Nickel	7440-02-0	0.001507	g	110000	11		48146	4.8146
Gel Die Encapsulant	0.0002	Solvents, additives, and other materials	Siloxanes and Silicones, di-Me, mono(vinyl group)-terminated	68952-00-1	0.0001975	g	987500	98.75		6309	0.6309
Gel Die Encapsulant		Solvents, additives, and other materials	Other organic Silicon Compounds	-	0.000002	g	10000	1		63	0.0063
Gel Die Encapsulant		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-	0.0000005	g	2500	0.25		15	0.0015
Pb Glass Frit Semiconductor Di	0.004	Lead/Lead Compounds	Lead (II) titanate	12060-00-3	0.00004152	g	10381	1.0381		1326	0.1326
Pb Glass Frit Semiconductor Di		Glass	Fibrous-glass-wool	65997-17-3	0.00003977	g	9943	0.9943		1270	0.127
Pb Glass Frit Semiconductor Di		Solvents, additives, and other materials	2,2,4-trimethyl-1,3-pentanediol-1-monoisobutyrate	25265-77-4	0.00003977	g	9943	0.9943		1270	0.127
Pb Glass Frit Semiconductor Di		Glass	Silicon, doped	-	0.00367894	g	969733	96.9733		123927	12.3927

**LINKS**

MCD LINK	
NXP website	<a href="http://www.nxp.com">http://www.nxp.com</a>
<b>GENERAL ENVIRONMENTAL COMPLIANCE LINKS</b>	
RoHS signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-ROHS-DECLARATION.pdf</a>
China RoHS	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/china-rohs:ENV_CHINA_ROHS_STRATEGY</a>
REACH signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-REACH-STATEMENT.pdf</a>
ELV signed letter	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-ELV-STATEMENT.pdf</a>
Conflict Minerals statement	<a href="http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf">http://www.nxp.com/files/corporate/doc/support_info/NXP-STATEMENT-CONFLICT-MINERALS.pdf</a>
<b>NXP ENVIRONMENTAL INFORMATION</b>	
Environmental Compliance website	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization:ABUENVPRFPRDX</a>
FAQ	<a href="http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ">http://www.nxp.com/about/corporate-responsibility/environmental-compliance-organization/eco-product-faqs:ENVIRON_FAQ</a>
Technical Service Request	<a href="http://www.nxp.com/support/sales-and-support:SUPPORTHOME">http://www.nxp.com/support/sales-and-support:SUPPORTHOME</a>
LINKS TO BLANK IPC1752 FORMS	
Blank IPC1752 v1.1 Form	<a href="http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf">http://www.NXP.com/files/abstract/corporate/ehs_epp/IPC-1752-2_v1.1_MCD_Template.pdf</a>

IPC1752 XML LINKS

[http://www.freescale.com/mcds/MPL115A2\\_IPC1752\\_v11.xml](http://www.freescale.com/mcds/MPL115A2_IPC1752_v11.xml)

[http://www.freescale.com/mcds/MPL115A2\\_IPC1752A.xml](http://www.freescale.com/mcds/MPL115A2_IPC1752A.xml)