

**PART INFORMATION**

Mfg Item Number	MMA9553LR1
Mfg Item Name	SENWBMAPLGA 16 3*3*1 P.5

**SUPPLIER**

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-06-02
Response Document ID	004HK50010S317A1.12
Contact Name	Freescale Semiconductor Inc
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**DECLARATION**

EU RoHS	Yes
Pb Free	No
HalogenFree	Yes
Plating Indicator	
EU RoHS Exemption(s)	7c-I

**MANUFACTURING**

Mfg Item Number	MMA9553LR1
Mfg Item Name	SENWBMAPLGA 16 3*3*1 P.5
Version	ALL
Weight	0.019700
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	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	<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. piezoelectronic 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%	ARTICLEPPM	ARTICLE%
Non-Conductive Epoxy/Adhesive	0.0001						g				
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Epoxy resins	-		0.0000075	g	75000	7.5	380	0.038
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Crosslinked acrylate polymer	25767-43-5		0.00002	g	200000	20	1015	0.1015
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Other polymers	-		0.0000075	g	75000	7.5	380	0.038
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other polymers	-		0.00002	g	200000	20	1015	0.1015
Non-Conductive Epoxy/Adhesive		Glass	Silica, vitreous	60676-86-0		0.000045	g	450000	45	2284	0.2284
Bonding Wire	0.0001						g				
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0001	g	1000000	100	5076	0.5076
Non-conductive Epoxy	0.0001						g				
Non-conductive Epoxy		Solvents, additives, and other materials	Other acrylates	-		0.0000023	g	23012	2.3012	116	0.0116
Non-conductive Epoxy		Antimony/Antimony Compounds	Antimony trioxide	1309-64-4		0.00000001	g	100	0.01	0	0
Non-conductive Epoxy		Metals	Barium	7440-39-3		0.00000013	g	1301	0.1301	6	0.0006
Non-conductive Epoxy		Solvents, additives, and other materials	Other phthalates	-		0.00000008	g	800	0.08	4	0.0004
Non-conductive Epoxy		Glass	Other silica compounds	-		0.00000005	g	500	0.05	2	0.0002
Non-conductive Epoxy		Metals	Zinc, metal	7440-66-6		0.00000005	g	500	0.05	2	0.0002
Non-conductive Epoxy		Plastics/polymers	Proprietary Material-Other acrylic/epoxy resin mixture	-		0.00001401	g	140070	14.007	711	0.0711
Non-conductive Epoxy		Plastics/polymers	Polyethylene terephthalate	25038-59-9		0.00002934	g	293447	29.3447	1489	0.1489
Non-conductive Epoxy		Plastics/polymers	Polypropylene	9003-07-0		0.00005403	g	540270	54.027	2742	0.2742
Silicon Semiconductor Die	0.0028						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000056	g	20000	2	2842	0.2842
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.002744	g	980000	98	13289	13.289
Die Encapsulant, Halogen-free	0.0089						g				
Die Encapsulant, Halogen-free		Metals	Aluminum, metal	7429-90-5		0.00044522	g	50025	5.0025	22600	2.26
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.00002672	g	3002	0.3002	1356	0.1356
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other inorganic silicon compounds	-		0.00007569	g	8504	0.8504	3842	0.3842
Die Encapsulant, Halogen-free		Solvents, additives, and other materials	Other organic phosphorous compounds	-		0.00007569	g	8504	0.8504	3842	0.3842
Die Encapsulant, Halogen-free		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.00026713	g	30015	3.0015	13559	1.3559
Die Encapsulant, Halogen-free		Plastics/polymers	Other polymers	-		0.00044522	g	50025	5.0025	22600	2.26
Die Encapsulant, Halogen-free		Glass	Silicon dioxide	7631-86-9		0.00133567	g	150075	15.0075	67800	6.78
Die Encapsulant, Halogen-free		Glass	Silica, vitreous	60676-86-0		0.00622866	g	699850	69.985	316194	31.6194
Pb Glass Frit Semiconductor Di	0.0035				7c-1		g				
Pb Glass Frit Semiconductor Di		Lead/Lead Compounds	Lead (II) titanate	12060-00-3		0.00003633	g	10381	1.0381	1844	0.1844
Pb Glass Frit Semiconductor Di		Glass	Fibrous-glass-wool	65997-17-3		0.0000348	g	9943	0.9943	1766	0.1766
Pb Glass Frit Semiconductor Di		Solvents, additives, and other materials	2,2,4-trimethyl-1,3-pentanediol-1-monoisobutyrate	25265-77-4		0.0000348	g	9943	0.9943	1766	0.1766
Pb Glass Frit Semiconductor Di		Glass	Silicon, doped	-		0.00339407	g	969733	96.9733	172287	17.2287
Organic Substrate, Halogen-free	0.0042						g				
Organic Substrate, Halogen-free		Metals	Barium sulfate	7727-43-7		0.00000086	g	205	0.0205	43	0.0043
Organic Substrate, Halogen-free		Metals	Copper, metal	7440-50-8		0.00228382	g	543770	54.377	115929	11.5929
Organic Substrate, Halogen-free		Plastics/polymers	Other Epoxy resins	-		0.00021477	g	51135	5.1135	10902	1.0902
Organic Substrate, Halogen-free		Metals	Gold, metal	7440-57-5		0.00001203	g	2864	0.2864	610	0.061
Organic Substrate, Halogen-free		Metals	Talc	14807-96-6		0.00010481	g	24954	2.4954	5320	0.532
Organic Substrate, Halogen-free		Nickel (external applications only)	Nickel	7440-02-0		0.00007474	g	17795	1.7795	3793	0.3793
Organic Substrate, Halogen-free		Glass	Fibrous-glass-wool	65997-17-3		0.00134015	g	319084	31.9084	68027	6.8027
Organic Substrate, Halogen-free		Glass	Silicon dioxide	7631-86-9		0.00012629	g	30068	3.0068	6410	0.641
Organic Substrate, Halogen-free		Metals	Copper phthalocyanine	147-14-8		0.00000258	g	614	0.0614	130	0.013
Organic Substrate, Halogen-free		Solvents, additives, and other materials	3-methoxy-3-methyl-1-butyl acetate	103429-90-9		0.00003995	g	9511	0.9511	2027	0.2027

## LINKS

MCD LINK	
NXP website	<a href="http://www.nxp.com">http://www.nxp.com</a>
GENERAL ENVIRONMENTAL COMPLIANCE LINKS	
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>
NXP ENVIRONMENTAL INFORMATION	
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/mcdfs/MMA9553LR1\\_IPC1752\\_v11.xml](http://www.freescale.com/mcdfs/MMA9553LR1_IPC1752_v11.xml)

[http://www.freescale.com/mcdfs/MMA9553LR1\\_IPC1752A.xml](http://www.freescale.com/mcdfs/MMA9553LR1_IPC1752A.xml)