

PART INFORMATION

Mfg Item Number	MAG3110FCR1
Mfg Item Name	DFN 10LD 2*2*0.85 P0.4

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-05-07
Response Document ID	008RA1.12
Contact Name	Freescale Semiconductor Inc
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URL for Additional Information	www.freescale.com

DECLARATION

EU RoHS	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e3
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MAG3110FCR1
Mfg Item Name	DFN 10LD 2*2*0.85 P0.4
Version	ALL
Weight	0.006700
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	1
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	<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%
Lead Frame Plating	0.0001						g				
Lead Frame Plating		Lead/Lead Compounds	Lead	7439-92-1		0.0000002	g	200	0.02	2	0.0002
Lead Frame Plating		Metals	Tin, metal	7440-31-5		0.0000998	g	999800	99.98	14922	1.4922
Bonding Wire	0.0001						g				
Bonding Wire		Metals	Gold, metal	7440-57-5		0.0001	g	1000000	100	14925	1.4925
Non-conductive Epoxy	0.0003						g				
Non-conductive Epoxy		Solvents, additives, and other materials	Bisphenol A	80-05-7		0.0000015	g	4996	0.4996	223	0.0223
Non-conductive Epoxy		Plastics/polymers	Epikote 862	28064-14-4		0.0002997	g	99915	9.9915	4473	0.4473
Non-conductive Epoxy		Plastics/polymers	4,4'-isopropylidenediphenol-1-chloro-2,3-epoxypropane bisacrylate	25068-38-6		0.0000015	g	4996	0.4996	223	0.0223
Non-conductive Epoxy		Plastics/polymers	Phenol, polymer with formaldehyde	9003-35-4		0.0002997	g	99915	9.9915	4473	0.4473
Non-conductive Epoxy		Glass	Proprietary Material-Other silica compounds	-		0.0000559	g	10983	1.0983	594	0.0594
Non-conductive Epoxy		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.0002011	g	670280	67.028	30014	3.0014
Non-conductive Epoxy		Solvents, additives, and other materials	4,4'-Diaminodiphenylsulfone	80-08-0		0.0002997	g	99915	9.9915	4473	0.4473
Die Encapsulant	0.0044						g				
Die Encapsulant		Metals	Other bismuth compounds	-		0.000044	g	10000	1	5567	0.5567
Die Encapsulant		Solvents, additives, and other materials	Carbon Black	1333-86-4		0.000044	g	10000	1	5567	0.5567
Die Encapsulant		Plastics/polymers	Other phenolic resins	-		0.000176	g	40000	4	26268	2.6268
Die Encapsulant		Glass	Silica, vitreous	60676-86-0		0.003828	g	870000	87	571358	57.1358
Die Encapsulant		Plastics/polymers	Other Non-halogenated Epoxy resins	-		0.000308	g	70000	7	45970	4.597
Non-Conductive Epoxy/Adhesive	0.0003						g				
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Polytetrafluoroethylene	9002-84-0		0.000102	g	340000	34	15223	1.5223
Non-Conductive Epoxy/Adhesive		Solvents, additives, and other materials	Proprietary Material-Other miscellaneous substances	-		0.000012	g	40000	4	1791	0.1791
Non-Conductive Epoxy/Adhesive		Plastics/polymers	Proprietary Material-Other Non-halogenated Epoxy resins	-		0.000186	g	620000	62	27761	2.7761
Silicon Semiconductor Die	0.0003						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000006	g	20000	2	895	0.0895
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.000294	g	980000	98	43880	4.388
Silicon Semiconductor Die	0.0003						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000006	g	20000	2	895	0.0895
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.000294	g	980000	98	43880	4.388
Copper Lead Frame	0.0009						g				
Copper Lead Frame		Metals	Copper, metal	7440-50-8		0.00084649	g	940562	94.0562	126341	12.6341
Copper Lead Frame		Solvents, additives, and other materials	Silicon	7440-21-3		0.00005353	g	7250	0.725	974	0.0974
Copper Lead Frame		Metals	Iron, metal	7439-89-6		0.00000113	g	1250	0.125	168	0.0168
Copper Lead Frame		Lead/Lead Compounds	Lead	7439-92-1		0.00000028	g	313	0.0313	41	0.0041
Copper Lead Frame		Metals	Magnesium, metal	7439-95-4		0.00000158	g	1750	0.175	235	0.0235
Copper Lead Frame		Metals	Manganese, metal	7439-96-5		0.00000056	g	625	0.0625	83	0.0083
Copper Lead Frame		Nickel (external applications only)	Nickel	7440-02-0		0.00000288	g	32000	3.2	4298	0.4298
Copper Lead Frame		Metals	Silver, metal	7440-22-4		0.0000009	g	10000	1	1343	0.1343
Copper Lead Frame		Metals	Zinc, metal	7440-66-6		0.00000563	g	6250	0.625	840	0.084

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/mcdfs/MAG3110FCR1_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MAG3110FCR1_IPC1752A.xml