

PART INFORMATION

Mfg Item Number	A2T18H450W19SR6
Mfg Item Name	NI-1230S-4S4S

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2018-03-17
Response Document ID	00KBK01826D007A1.2
Contact Name	Freescale Semiconductor Inc
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DECLARATION

EU RoHS	Yes
Pb Free	Yes
HalogenFree	Yes
Plating Indicator	e4
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	A2T18H450W19SR6
Mfg Item Name	NI-1230S-4S4S
Version	ALL
Weight	5.076100
UoM	g
Unit Volume	EACH
J-STD-020 MSL Rating	
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%
Bonding Wire, Aluminum	0.0123						g				
Bonding Wire, Aluminum		Metals	Aluminum, metal	7429-90-5		0.0123	g	1000000	100	2423	0.2423
Cap/Cover	1.771						g				
Cap/Cover		Metals	Aluminum Oxides (Al2O3)	1344-28-1		1.671824	g	944000	94.4	329352	32.9352
Cap/Cover		Solvents, additives, and other materials	Calcium monoxide	1305-78-8		0.008855	g	5000	0.5	1744	0.1744
Cap/Cover		Metals	Magnesium-oxide	1309-48-4		0.01771	g	10000	1	3488	0.3488
Cap/Cover		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.07084	g	40000	4	13955	1.3955
Cap/Cover		Metals	Titanium (IV) Oxide	13463-67-7		0.001771	g	1000	0.1	348	0.0348
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000422	g	20000	2	83	0.0083
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.020678	g	980000	98	4073	0.4073
Capacitor, 0201	0.0051						g				
Capacitor, 0201		Metals	Aluminum Oxides (Al2O3)	1344-28-1		0.00015842	g	31063	3.1063	31	0.0031
Capacitor, 0201		Metals	Copper, metal	7440-50-8		0.00031457	g	61680	6.168	61	0.0061
Capacitor, 0201		Metals	Gold, metal	7440-57-5		0.00032715	g	64148	6.4148	64	0.0064
Capacitor, 0201		Metals	Manganese dioxide	1313-13-9		0.00000516	g	1011	0.1011	1	0.0001
Capacitor, 0201		Nickel (external applications only)	Nickel	7440-02-0		0.00016987	g	33308	3.3308	33	0.0033
Capacitor, 0201		Metals	Tin, metal	7440-31-5		0.00005033	g	9869	0.9869	9	0.0009
Capacitor, 0201		Metals	Barium titanate	12047-27-7		0.004745	g	798921	79.8921	802	0.0802
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000422	g	20000	2	83	0.0083
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.020678	g	980000	98	4073	0.4073
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Silicon Semiconductor Die	0.0211						g				
Silicon Semiconductor Die		Metals	Gold, metal	7440-57-5		0.00021522	g	10200	1.02	42	0.0042
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.0004177	g	19796	1.9796	82	0.0082
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.02046708	g	970004	97.0004	4032	0.4032
Header Assembly	3.14						g				
Header Assembly		Metals	Aluminum Oxides (Al2O3)	1344-28-1		0.00003454	g	11	0.0011	6	0.0006
Header Assembly		Metals	Chromium, metal	7440-47-3		0.00023236	g	74	0.0074	45	0.0045
Header Assembly		Metals	Cobalt, metal	7440-48-4		0.0077558	g	2470	0.247	1527	0.1527
Header Assembly		Metals	Copper, metal	7440-50-8		0.95481748	g	304082	30.4082	188100	18.81
Header Assembly		Metals	Gold, metal	7440-57-5		0.0287624	g	916	0.0916	566	0.0566
Header Assembly		Metals	Iron, metal	7439-89-6		0.0528619	g	16835	1.6835	10413	1.0413
Header Assembly		Metals	Manganese, metal	7439-96-5		0.0105504	g	336	0.0336	207	0.0207
Header Assembly		Metals	Molybdenum, metal	7439-96-7		1.90209268	g	605762	60.5762	374736	37.4736
Header Assembly		Nickel (external applications only)	Nickel	7440-02-0		0.05467996	g	17414	1.7414	10772	1.0772
Header Assembly		Metals	Palladium, metal	7440-05-3		0.02424708	g	7722	0.7722	4776	0.4776
Header Assembly		Metals	Silver, metal	7440-22-4		0.01869556	g	5954	0.5954	3683	0.3683
Header Assembly		Metals	Titanium (III, IV) oxide (Ti3O5)	12065-65-5		0.0009734	g	31	0.0031	19	0.0019
Header Assembly		Plastics/polymers	Ethyl cellulose	9004-57-3		0.00022608	g	72	0.0072	44	0.0044
Header Assembly		Solvents, additives, and other materials	Silicon monoxide	10097-28-6		0.0044588	g	142	0.0142	87	0.0087
Header Assembly		Metals	Copper zinc iron oxide	86402-68-4		0.11988206	g	38179	3.8179	23616	2.3616

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/A2T18H450W19SR6_IPC1752_v11.xml

http://www.freescale.com/mcdfs/A2T18H450W19SR6_IPC1752A.xml