

PART INFORMATION

Mfg Item Number	MRFE6P3300HR3
Mfg Item Name	NI-860C3

SUPPLIER

Company Name	Freescale Semiconductor Inc
Company Unique ID	14-141-7928
Response Date	2017-05-23
Response Document ID	7526A1.19
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	e4
EU RoHS Exemption(s)	

MANUFACTURING

Mfg Item Number	MRFE6P3300HR3
Mfg Item Name	NI-860C3
Version	ALL
Weight	6.324400
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%
Cap/Cover	0.8947						g				
Cap/Cover		Metals	Aluminum Oxides (Al2O3)	1344-28-1		0.8445968	g	944000	94.4	133545	13.3545
Cap/Cover		Solvents, additives, and other materials	Calcium monoxide	1305-78-8		0.0044735	g	5000	0.5	707	0.0707
Cap/Cover		Metals	Magnesium-oxide	1309-48-4		0.008947	g	10000	1	1414	0.1414
Cap/Cover		Glass	Silica, crystalline - quartz (SiO2)	14808-60-7		0.035788	g	40000	4	5658	0.5658
Cap/Cover		Metals	Titanium (IV) Oxide	13463-67-7		0.0008947	g	1000	0.1	141	0.0141
Bonding Wire, Aluminum	0.0012						g				
Bonding Wire, Aluminum		Metals	Aluminum, metal	7429-90-5		0.0012	g	1000000	100	189	0.0189
Solder Attach	0.028						g				
Solder Attach		Metals	Gold, metal	7440-57-5		0.02226	g	795000	79.5	3519	0.3519
Solder Attach		Metals	Tin, metal	7440-31-5		0.00574	g	205000	20.5	907	0.0907
Heat Sink	4.7245						g				
Heat Sink		Metals	Cobalt, metal	7440-48-4		0.00141735	g	300	0.03	224	0.0224
Heat Sink		Metals	Copper, metal	7440-50-8		1.5354625	g	325000	32.5	242783	24.2783
Heat Sink		Metals	Gold, metal	7440-57-5		0.037796	g	8000	0.8	5976	0.5976
Heat Sink		Metals	Molybdenum, metal	7439-98-7		3.14628077	g	665950	66.595	497496	49.7496
Heat Sink		Nickel (external applications only)	Nickel	7440-02-0		0.00354338	g	750	0.075	560	0.056
Lead Frame Assembly	0.6532						g				
Lead Frame Assembly		Metals	Aluminum Oxides (Al2O3)	1344-28-1		0.34566951	g	529194	52.9194	54656	5.4656
Lead Frame Assembly		Metals	Chromium, metal	7440-47-3		0.00567892	g	8694	0.8694	897	0.0897
Lead Frame Assembly		Metals	Cobalt, metal	7440-48-4		0.00422033	g	6461	0.6461	667	0.0667
Lead Frame Assembly		Metals	Copper, metal	7440-50-8		0.00378072	g	5788	0.5788	597	0.0597
Lead Frame Assembly		Metals	Gold, metal	7440-57-5		0.00982609	g	15043	1.5043	1553	0.1553
Lead Frame Assembly		Metals	Iron, metal	7439-89-6		0.09937795	g	152140	15.214	15713	1.5713
Lead Frame Assembly		Lead/Lead Compounds	Lead	7439-92-1		0.0000131	g	2	0.0002	0	0
Lead Frame Assembly		Metals	Molybdenum, metal	7439-98-7		0.00314385	g	4813	0.4813	497	0.0497
Lead Frame Assembly		Nickel (external applications only)	Nickel	7440-02-0		0.08347439	g	127793	12.7793	13198	1.3198
Lead Frame Assembly		Glass	Proprietary Material-Other glass compounds (without lead, chromium, cadmium or mercury)	-		0.02915558	g	44635	4.4635	4610	0.461
Lead Frame Assembly		Metals	Silver, metal	7440-22-4		0.00972092	g	14882	1.4882	1537	0.1537
Lead Frame Assembly		Metals	Tungsten, metal	7440-33-7		0.00915053	g	90555	9.0555	9352	0.9352
Silicon Semiconductor Die	0.0114						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000228	g	20000	2	36	0.0036
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.011172	g	980000	98	1766	0.1766
Silicon Semiconductor Die	0.0114						g				
Silicon Semiconductor Die		Solvents, additives, and other materials	Other miscellaneous substances (less than 5%)	-		0.000228	g	20000	2	36	0.0036
Silicon Semiconductor Die		Glass	Silicon, doped	-		0.011172	g	980000	98	1766	0.1766

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/MRFE6P3300HR3_IPC1752_v11.xml

http://www.freescale.com/mcdfs/MRFE6P3300HR3_IPC1752A.xml