Material Composition Declaration

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This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

Adobe Reader version 7.0.5 is required to complete this declaration.

IPC-1752-2 v1.02 **1752-2**	IPC Web Site for Information on IPC-1752 Standard **http://www.ipc.org/IPC-175x**	**Form Type *** **Distribute**	**Declaration Class *** **Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat**

Supplier Information

Company Name * **Mindspeed Technologies**	Company Unique ID	Unique ID Authority	**Response Date *** **2009-10-29**	Response Document ID	
Contact Name * **Cynthia Ong**	Title - Contact Program Manager	**Phone - Contact *** **949-579-5515**	**Email - Contact *** **cynthia.ong@mindspeed.con**		
Authorized Representative * **Cynthia Ong**	Title - Representative Program Manager	**Phone - Representative *** **949-579-5515**	**Email - Representative** * **cynthia.ong@mindspeed.con**	Supplier Comments or URL for Additional Information	

Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight	UOM	Unit Type
M21451G-13	M21451G-13	6MLF 40	2009-01-09	A	Amkor, Korea	100.5	mg	Each

Alternate Recommendation		Alternate Item Comments	
	N/A		

Manufacturing Process Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	Number of Reflow Cycles
Sn	**Cu**	**3**	**260** C	**40** seconds	**3**

Comments

*** Required Field**

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Save the fields in this form to a file | Export Data | Import fields from a file into this form | Import Data | Locked

RoHS Material Composition Declaration

Declaration Type * **Simplified**

RoHS Directive 2002/95/EC

RoHS Definition: Quantity limit of 0.1% by mass (1000 PPM) in 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 for Cadmium

Supplier certifies that it gathered the information it provides in this form concerning RoHS restrictive substances 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, 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,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 Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

RoHS Declaration *	1 - Item(s) does not contain RoHS restricted substances per the definition above	Supplier Acceptance	**Accepted**

Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and checkboxes will appear below. Check all applicable exemptions.

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.

2a. Mercury in straight fluorescent lamps for general purposes not exceeding 10 mg in halophosphate lamps

2b. Mercury in straight fluorescent lamps for general purposes not exceeding 5 mg in triphosphate lamps with a normal lifetime

2c. Mercury in straight fluorescent lamps for general purposes not exceeding 8 mg in triphosphate lamps with long lifetime

3. Mercury in straight fluorescent lamps for special purposes.

4. Mercury in other lamps not specifically mentioned in this list.

5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

6a. Lead as an alloying element in steel containing up to 0.35% lead by weight.

6b. Lead as an alloying element in aluminum containing up to 0.4% lead by weight.

6c. Lead as an alloying element in copper containing up to 4% lead by weight.

7a. Lead in high melting temperature type solders (i.e. lead based solder alloys containing 85% by weight or more lead).

7b. Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications.

7c. Lead in electronic ceramic parts (e.g. piezoelectronic devices).

8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations piezoelectronic devices).

9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators

10a. Deca BDEin polymeric applications

10b. Lead in lead-bronze bearing shells

11. Lead used in compliant pin connector systems.

12. Lead as a coating material for a thermal conduction module c-ring.

13a. Lead in optical and filter glass.

13b. Cadmium in optical and filter glass.

14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight .

15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

Declaration Signature

Instructions: Complete all of the required fields on all pages of this form. Select the "Accepted" on the Supplier Acceptance drop-down. This will display the signature area. Digitally sign the declaration (if required by the Requester) and click on Submit Form to have the form returned to the Requester.

Supplier Digital Signature	Cynthia Ong - Mindspeed Technologies Inc.	Digitally signed by Cynthia Ong - Mindspeed Technologies Inc. DN: cn=Cynthia Ong - Mindspeed Technologies Inc. Date: 2009.10.28 19:15:30 -07'00'	

*** Required Field**

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Homogeneous Material Composition Declaration for Electronic Products

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

Line Functions: +P Inserts a New Part +M Inserts a new Material +C Inserts a new Substance Category +S Inserts a new Substance - Deletes the element line

Item/SubItem Name	Homogeneous Material	Weight	Unit of Measure	Level	Substance Category	Substance	CAS	Exempt	Weight	Unit of Measure	Tolerance -	Tolerance +	PPM
M21451G-13	Mold Compound	37.1	mg	C	GROUP-C	Epoxy Resin	Proprietary		5.9	mg			159,02
				C	GROUP-C	Silica Vitrous	60676-86		31.161	mg			839,91
				C	GROUP-C	Bismuth			0.0371	mg			1,000
	Leadframe	53.64	mg	C	GROUP-C	Copper	7440-50-8		51.591	mg			961,80
				C	GROUP-C	Iron	7439-89-6		1.244	mg			23,191
				C	GROUP-C	Phosphorous	7723-14-0		0.044	mg			820.28
				C	GROUP-C	Zinc	7440-66-6		0.088	mg			1,640.5
				C	GROUP-C	Silver	7440-22-4		0.69	mg			12,863
	Die	4.46	mg	C	GROUP-C	Silicon	7440-21-3		4.46	mg			999,99
	Die Attach	1.01	mg	C	GROUP-C	Epoxy Resin	Proprietary		0.211	mg			208,91
				C	GROUP-C	Amines	Proprietary		0.03	mg			29,702
				C	GROUP-C	Silver	7440-22-4		0.704	mg			697,02
				C	GROUP-C	Gamma-Butyrolactone	96-48-0		0.03	mg			29,702
				C	GROUP-C	Metal Oxide	Proprietary		0.03	mg			29,702
	Wire	2.45	mg	C	GROUP-C	Gold	7440-57-5		2.45	mg			999,99
	Leadfinish	1.85	mg	C	GROUP-C	Tin	7440-31-5		1.85	mg			999,99

Homogeneous Material Composition Declaration for Electronic Products

Requester Instructions: The requester can optionally include additional substance categories and substances that must be declared for the item on this form. This is in addtion to JIG Level A and JIG Level B substances already included for the JIG section. The requester should enter additional substance categories and then enter name of the substance and the CAS number. These entries will be accessible to the supplier via Level drop-down by selecting "Requester". Use the Load "Requester" and Test button to view the entries, just select "Requester" in the Level drop-down list in the previous section.

*** Required Field**

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	Substance Category		Substance	CAS
+C -C		+S -S		
Update Level "Requester" and Test		Clear Level "Requester" values		

*** Required Field**

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