



# 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.

1752-2 1.1	IPC Web Site for Information on IPC-1752 Standard <a href="http://www.ipc.org/IPC-175x">http://www.ipc.org/IPC-175x</a>	Form Type * Distribute	Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Informat
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## Supplier Information

Company Name * Mindspeed Technologies, Inc	Company Unique ID	Unique ID Authority	Response Date * 2012-12-13	Response Document ID				
Contact Name * Cynthia Ong	Title - Contact Program Manager	Phone - Contact * 949-579-5515	Email - Contact * cynthia.ong@mindspeed.com					
Authorized Representative * Amy Teng	Title - Representative Quality Engineer	Phone - Representative * 604-6328114	Email - Representative * amy.teng@mindspeed.com	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
M21036G-12	M21036G-12	23 HFCBGA 480	2012-05-07	A	ASEK	7,232.509	mg	EACH
Alternate Recommendation		NA		Alternate Item Comments	NA			

## 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
SAC	NA	3	245 C	40 seconds	3
Comments NA					

Save the fields in this form to a file

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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 \*** 4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions

**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 choose all applicable exemptions.

Exemption List Version EL-2006/690/EC

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

## 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:** +I Inserts a New Item /SubItem +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		PPM
											-	+	
M21036G-12	Bump	5.15	mg	C	GROUP-C	Pb	7440-31-5		1.905602	mg			370,01
				A	Lead/Lead Compound	Sn	7439-92-1		3.244674	mg			630,03
	Solder ball	422	mg	C	GROUP-C	Ag	7440-22-4		12.66	mg			29,999
				C	GROUP-C	Cu	7440-50-8		2.11	mg			5,000
				C	GROUP-C	Sn	7440-31-5		407.23	mg			964,99
	Underfill	24	mg	C	GROUP-C	Additives	Trade Secret		1.2	mg			49,999
				C	GROUP-C	Silicon dioxide	60676-86-0		11.04	mg			459,99
				C	GROUP-C	Carbon black	1333-86-4		0.24	mg			9,999.9
				C	GROUP-C	Bisphenol F type liquid	9003-36-5		4.8	mg			199,99
				C	GROUP-C	Amine type accelerator	Trade Secret		1.2	mg			49,999
				C	GROUP-C	Phenolic resin	9003-35-4		4.8	mg			199,99
				C	GROUP-C	Bisphenol A type liquid	25068-38-6		0.72	mg			29,999
	Die	358	mg	C	GROUP-C	Silicon	7440-21-3		358	mg			999,99
	Heatslug	4,934	mg	C	GROUP-C	Chrome	Trade Secret		2.467	mg			500
				C	GROUP-C	Copper	7440-50-8		4,901.929	mg			993,49
				B	Nickel/Nickel Compound	Nickel	7440-02-0		29.604	mg			4,093.1
	Thermally conductive	95	mg	C	GROUP-C	Alumina	01344-28-1		85.5	mg			899,99
				C	GROUP-C	Others	Trade Secret		9.5	mg			99,999
	Substrate	1,394.34	mg	C	GROUP-C	Others	Proprietary		76.62682	mg			54,955
				C	GROUP-C	others	Proprietary		19.49192	mg			13,979
				C	GROUP-C	organic material	Proprietary		2.887459	mg			2,070.8
				C	GROUP-C	Tin	7440-31-5		0.313003	mg			224.48
				C	GROUP-C	Bisphenol A epoxy resin	25068-38-6		8.301000	mg			5,953.3

C	GROUP-C		Dipropylene glycol mon	34590-94-8		3.389899	mg			2,431.1
C	GROUP-C		Barium Sulfate	7727-43-7		10.16969	mg			7,293.5
C	GROUP-C		Solvent naphtha(petrole	64742-94-5		4.661111	mg			3,342.8
C	GROUP-C		Continuous Filament Fib	65997-17-3		380.0142	mg			272,53
C	GROUP-C		N,N-Dimethylformamide	68-12-2		0.858724	mg			615.85
C	GROUP-C		Toluene	108-88-3		4.675276	mg			3,353.0
C	GROUP-C		Silica,amorphous	7631-86-9		0.423737	mg			303.89
C	GROUP-C		Bisphenol A epoxy resin	25068-38-6		5.389924	mg			3,865.5
C	GROUP-C		Naphthalene	91-20-3		0.847474	mg			607.79
C	GROUP-C		Copper foil	7440-50-8		138.1869	mg			99,104
C	GROUP-C		other epoxy resin	Proprietary		1.347481	mg			966.38
C	GROUP-C		copper	7440-50-8		373.3401	mg			267,75
C	GROUP-C		Moroholine derivative	Trade secret		1.694949	mg			1,215.5
C	GROUP-C		Talc containing no asbe	14807-96-6		1.694949	mg			1,215.5
C	GROUP-C		Coal tar naphtha	64742-94-5		0.276700	mg			198.44
C	GROUP-C		Inorganic filler	Proprietary		198.6437	mg			142,46
C	GROUP-C		methyl octanoate	67762-90-7		9.624864	mg			6,902.7
C	GROUP-C		Cyclohexanone	108-94-1		4.675276	mg			3,353.0
C	GROUP-C		Epoxy Resin	Proprietary		146.8236	mg			105,29