



# 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 * 2010-11-23	Response Document ID				
Contact Name * Cynthia Ong	Title - Contact Program Manager	Phone - Contact * 949-579-5515	Email - Contact * cynthia.ong@mindspeed.com					
Authorized Representative * CH Choong	Title - Representative Senior Quality Engineer	Phone - Representative * +6(04)-632 8036	Email - Representative * ch.choong@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
M21151G-23	M21151G-23	35HFBCGA 1156		A	ASE, Taiwan	13,756.4	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	N/A	5	245 C	40 seconds	3
Comments NA					

Save the fields in this form to a file

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## 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
											-	+	
M21151G-23	Substrate	2,422.1	mg	C	GROUP-C	BaSO4	7727-43-7		12	mg			4,954.3
				C	GROUP-C	Sn	7440-31-5		56	mg			23,120
				B	Bismuth/Bismuth Com	Bi	7440-69-9		5	mg			363.46
				C	GROUP-C	Ag	7440-22-4		2	mg			825.72
				C	GROUP-C	CaO	1305-78-8		151	mg			62,342
				C	GROUP-C	Brome compounds			72	mg			29,726
				C	GROUP-C	Talc	14807-96-6		10	mg			4,128.6
				C	GROUP-C	Polyphenylene ether (PP			382	mg			157,71
				C	GROUP-C	MgO	1309-48-4		38	mg			15,688
				B	Antimony/Antimony C	Sb2O3	1309-64-4		22	mg			1,599.2
				C	GROUP-C	Epoxy resin			51	mg			21,056
				B	Arsenic/Arsenic Comp	As	7440-38-2		0.1	mg			7.2693
				C	GROUP-C	SiO2	7631-86-9		352	mg			145,32
				C	GROUP-C	Cu	7440-50-8		1,171	mg			483,46
				C	GROUP-C	Al2O3	1344-28-1		95	mg			39,222
				A	Lead/Lead Compound	Pb	7439-92-1		3	mg			1,238.5
	Solder ball	1,018.09	mg		C	GROUP-C	Sn	7440-31-5		982.4568	mg		964,99
					C	GROUP-C	Cu	7440-50-8		5.09045	mg		5,000
					C	GROUP-C	Ag	7440-22-4		30.5427	mg		30,000
	Underfill	42	mg		C	GROUP-C	Bisphenol F type liquid	9003-36-5		8.4	mg		199,99
					C	GROUP-C	Amine type accelerator	Trade Secret		2.1	mg		49,999
					C	GROUP-C	Additives	Trade Secret		2.1	mg		49,999
					C	GROUP-C	Bisphenol A type liquid	25068-38-6		1.26	mg		29,999

				C	GROUP-C		Carbon black	1333-86-4		0.42	mg			9,999.9
				C	GROUP-C		Phenolic resin	9003-35-4		8.4	mg			199,99
				C	GROUP-C		Silicon dioxide	60676-86-0		19.32	mg			459,99
Bump	10.42	mg		A	Lead/Lead Compound		Pb	7439-92-1		3.8554	mg			369,99
				C	GROUP-C		Sn	7440-31-5		6.5646	mg			629,99
Heatslug	9,697	mg		B	Nickel/Nickel Compou		Nickel	7440-02-0		58.182	mg			4,229.4
				C	GROUP-C		Copper	7440-50-8		9,633.969	mg			993,49
				C	GROUP-C		Chrome	-		4.8485	mg			500
Adhesive/ TIM	180	mg		C	GROUP-C		Others	Trade Secret		18	mg			99,999
				C	GROUP-C		Alumina	01344-28-1		162	mg			899,99
Die	386.83	mg		C	GROUP-C		Silicon	7440-21-3		386.83	mg			999,99