



# 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 *	Company Unique ID	Unique ID Authority	Response Date *	Response Document ID				
Mindspeed Technologies Inc	N/A	N/A	2012-06-18					
Contact Name *	Title - Contact	Phone - Contact *	Email - Contact *					
Cynthia Ong	Program Manager	949-579-5515	cynthia.ong@mindspeed.com					
Authorized Representative *	Title - Representative	Phone - Representative *	Email - Representative *	Supplier Comments or URL for Additional Information				
Amy Teng	Quality Engineer	604-6328114	amy.teng@mindspeed.com					
Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	Weight *	UOM	Unit Type
M21048G-11P	M21048G-11P	27HFBCGA 672	2011-07-22	A	ASE, Taiwan	5,356.45	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 305	N/A	3	245 C	40 seconds	3
Comments					
N/A					

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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
											-	+	
M21048G-11P	Solder Ball	590	mg	C	GROUP-C	Sn	7440-31-5		569.35	mg			964,99
				C	GROUP-C	Ag	7440-22-4		17.7	mg			29,999
				C	GROUP-C	Cu	7440-50-8		2.95	mg			5,000
Die		358	mg	C	GROUP-C	Silicon Die	7440-21-3		358	mg			999,99
Mold compound		24	mg	C	GROUP-C	Silicon dioxide	60676-86-0		11.04	mg			459,99
				C	GROUP-C	Additives	Trade Secret		1.2	mg			49,999
				C	GROUP-C	Phenolic resin	9003-35-4		4.8	mg			199,99
				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	Bisphenol A type liquid	25068-38-6		0.72	mg			29,999
				C	GROUP-C	Amine type accelerator	Trade Secret		1.2	mg			49,999
Heatslug		4,007.5	mg	C	GROUP-C	Copper	7440-50-8		3,981.45	mg			993,49
				C	GROUP-C	Chrome	Proprietary		2	mg			499.06
				B	Nickel/Nickel Compou	Nickel	7440-02-0		24.05	mg			4,489.9
Thermally condu		150	mg	C	GROUP-C	Others	Trade Secret		15	mg			99,999
				C	GROUP-C	Alumina	01344-28-1		135	mg			899,99
Substrate		226.42	mg	C	GROUP-C	Antifoamer Leveling ag	Trade secret		0.07	mg			309.15
				C	GROUP-C	other epoxy resin	Proprietary		0.19	mg			839.14
				C	GROUP-C	Amine compounds	Trade secret		0.03	mg			132.49
				C	GROUP-C	Toluene	108-88-3		0.1	mg			441.65
				C	GROUP-C	Silica	7631-86-9		10.67	mg			47,124
				C	GROUP-C	Cyclohexanone	108-94-1		1.61	mg			7,110.6
				C	GROUP-C	Aromatic carbonyl comp	Trade secret		0.2	mg			883.31

C	GROUP-C		Talc	14807-96-6	0.54	mg			2,384.9			
C	GROUP-C		Coal tar naphtha	64742-94-5	2.3	mg			10,158			
C	GROUP-C		organic material	Proprietary	0.38	mg			1,678.2			
C	GROUP-C		methyl octanoate	67762-90-7	1.28	mg			5,653.2			
C	GROUP-C		Glass Cloth	65997-17-3	29.16	mg			128,78			
C	GROUP-C		Barium sulfate	7727-43-7	0.54	mg			2,384.9			
C	GROUP-C		Acrylate resin	Trade secret	2.09	mg			9,230.6			
C	GROUP-C		Others	Proprietary	16.11	mg			71,150			
C	GROUP-C		Vehicle	Trade secret	0.04	mg			176.66			
C	GROUP-C		Organic pigment	Trade secret	0.01	mg			44.165			
C	GROUP-C		Diethylene glycol mono	112-15-2	0.54	mg			2,384.9			
C	GROUP-C		Dipropylene glycol mon	88917-22-0	0.07	mg			309.15			
C	GROUP-C		Thermosetting Resin an	Proprietary	34.99	mg			154,53			
C	GROUP-C		Dipropylene glycol mon	34590-94-8	0.39	mg			1,722.4			
C	GROUP-C		Tin	7440-31-5	0.34	mg			1,501.6			
C	GROUP-C		Phthalocyanine blue	147-14-8	0.01	mg			44.165			
C	GROUP-C		N,N-Dimethylformamide	68-12-2	0.32	mg			1,413.3			
C	GROUP-C		Cu	7440-50-8	120.93	mg			534,09			
C	GROUP-C		Bisphenol A epoxy resin	25068-38-6	3.51	mg			15,502			
Bump	0.53	mg		C	GROUP-C		Sn	7440-31-5	0.25	mg		471,69
				A	Lead/Lead Compound		Pb	7439-92-1	0.28	mg		528,30