



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 http://www.ipc.org/IPC-175x	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-12	M21048G-12	27HFBCGA 672	2012-05-07	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					

* Required Field

CAS Registry Number(R) is a Registered Trademark of the American Chemical Society

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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-12	Thermally conductive	150	mg	C	GROUP-C	Others	Trade Secret		15	mg			99,999
				C	GROUP-C	Alumina	01344-28-1		135	mg			899,99
	Mold compound	24	mg	C	GROUP-C	Amine type accelerator	Trade Secret		1.2	mg			49,999
				C	GROUP-C	Carbon black	1333-86-4		0.24	mg			9,999.9
				C	GROUP-C	Additives	Trade Secret		1.2	mg			49,999
				C	GROUP-C	Bisphenol F type liquid	99003-36-5		4.8	mg			199,99
				C	GROUP-C	Phenolic resin	9003-35-4		4.8	mg			199,99
				C	GROUP-C	Silicon dioxide	60676-86-0		11.04	mg			459,99
				C	GROUP-C	Bisphenol A type liquid	25068-38-6		0.72	mg			29,999
	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
	Heatslug	4,007.5	mg	B	Nickel/Nickel Compound	Nickel	7440-02-0		24.05	mg			4,489.9
				C	GROUP-C	Copper	7440-50-8		3,981.45	mg			993,49
				C	GROUP-C	Chrome	Proprietary		2	mg			499.06
	Substrate	226.42	mg	C	GROUP-C	Amine compounds	Trade secret		0.03	mg			132.49
				C	GROUP-C	Dipropylene glycol mon	34590-94-8		0.39	mg			1,722.4
				C	GROUP-C	Glass Cloth	65997-17-3		29.16	mg			128,78
				C	GROUP-C	Antifoamer Leveling ag	Trade secret		0.07	mg			309.15
				C	GROUP-C	Coal tar naphtha	64742-94-5		2.3	mg			10,158
				C	GROUP-C	Thermosetting Resin an	Proprietary		34.99	mg			154,53
				C	GROUP-C	Silica	7631-86-9		10.67	mg			47,124
				C	GROUP-C	Dipropylene glycol mon	88917-22-0		0.07	mg			309.15

C	GROUP-C		other epoxy resin	Proprietary		0.19	mg			839.14				
C	GROUP-C		Vehicle	Trade secret		0.04	mg			176.66				
C	GROUP-C		N,N-Dimethylformamide	68-12-2		0.32	mg			1,413.3				
C	GROUP-C		Organic pigment	Trade secret		0.01	mg			44.165				
C	GROUP-C		Diethylene glycol monoel	112-15-2		0.54	mg			2,384.9				
C	GROUP-C		organic material	Proprietary		0.38	mg			1,678.2				
C	GROUP-C		Cyclohexanone	108-94-1		1.61	mg			7,110.6				
C	GROUP-C		Acrylate resin	Trade secret		2.09	mg			9,230.6				
C	GROUP-C		Cu	7440-50-8		120.93	mg			534,09				
C	GROUP-C		Talc	14807-96-6		0.54	mg			2,384.9				
C	GROUP-C		methyl octanoate	67762-90-7		1.28	mg			5,653.2				
C	GROUP-C		Barium sulfate	7727-43-7		0.54	mg			2,384.9				
C	GROUP-C		Phthalocyanine blue	147-14-8		0.01	mg			44.165				
C	GROUP-C		Toluene	108-88-3		0.1	mg			441.65				
C	GROUP-C		Others	Proprietary		16.11	mg			71,150				
C	GROUP-C		Tin	7440-31-5		0.34	mg			1,501.6				
C	GROUP-C		Bisphenol A epoxy resin	25068-38-6		3.51	mg			15,502				
C	GROUP-C		Aromatic carbonyl comp	Trade secret		0.2	mg			883.31				
Die	358	mg		C	GROUP-C		Silicon Die	7440-21-3		358	mg			999,99
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