



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2013-07-02
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Giuseppe Vitali Palma	Representative Title	Group MD CHAMPION (CSD Materials Declaration Champion)
Representative Phone *	Refer to "Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/internet/com/support/online_tech_support.jsp		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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Legal Statement

Supplier certifies that it gathered the provided information and 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. 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(s), 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(s), 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	HVW8*UL45AB5	A	ZS1A	2013-07-02
	Amount	UoM	Unit type	ST ECOPACK Grade
	5.40	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used	ium/Gold (Ni/Pd/Au) Tin/Bismuth (S	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2X1.26X0.93	4	gull wing	
Comment	Package: SOT 323 5LDS			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList :REACH-18 June 2012				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	HVW8*UL45AB5							
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)		
Silicon die	Other inorganic materials	0.272	mg		Silicon die	Silicon (Si)	7440-21-3		0.266	mg	981550	49259		
					Passivation	Gamma-butyrolactone	96-48-0		0.002	mg	7380	370		
						Polyhydroxyamide	55295-98-2		0.001	mg	3690	185		
						Back side metallization	Nickel (Ni)	7440-02-0		0.002	mg	7380	370	
Die Attach	Other Organic Materials					Gold (Au)	7440-57-5		0.001	mg	19231	185		
Leadframe	Copper & its alloys	2.643	mg		Alloy	Copper	7440-50-8		2.546	mg	963299	471481		
						Iron	7439-89-6		0.06	mg	22701	11111		
						Iron Phosphide(FeP)	26508-33-8		0.001	mg	378	185		
							Zinc	7440-66-0		0.003	mg	1135	556	
							Coating	Nickel	7440-02-0		0.03	mg	11351	5556
								Palladium	7440-05-3		0.003	mg	1135	556
Die attach	Other Organic Materials	0.051	mg		Glue	Silver	7440-22-4		0.04	mg	769231	7407		
						Carbocyclic Acrylates	proprietary		0.005	mg	96154	926		
						Bismaleimide resin	proprietary		0.002	mg	38462	370		
						2-preponoic acid, 2-methyl	68586-19-6		0.002	mg	38462	370		
						Additive	proprietary		0.002	mg	38462	370		
Bonding wire	Other inorganic materials	0.05	mg		Bonding wire	Gold (Au)	7440-57-5		0.05	mg	1000000	9259		
Encapsulation	Other Organic Materials	2.384	mg		Molding compound MP8000C	Epoxy resin-1	Proprietary		0.072	mg	30201	13333		
						Epoxy resin-2	Proprietary		0.072	mg	30201	13333		
						Phenol resin	Proprietary		0.108	mg	45302	20000		
						Silica	60676-86-0		2.127	mg	892198	393889		
						Carbon Black	1333-86-4		0.005	mg	2097	926		