



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2014-08-06
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Antonella Lanzafame	<b>Representative Title</b>	AMS & IPD Materials Declaration Champion
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	BTDP*A4FAT2H	A	Z8GA	2014-08-06
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.5,6.1,2.3	3	gull wing	
Comment	TO 252DPAK; MD valid for CP:ACST210-8B, ACST210-8BTR.			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	<b>false</b>
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-16th June 2014				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	BTDP*A4FAT2H					
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	1.767	mg	supplier	Silicon die	Silicon (Si)	7440-21-3		1.674	mg	947368	5231
Silicon die				supplier	Silicon die	Aluminium (Al)	7429-90-5		0.055	mg	31126	172
Silicon die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.013	mg	7357	41
Silicon die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.006	mg	3396	19
Silicon die				supplier	backside metallization	Titanium (Ti)	7440-32-6		0.001	mg	566	3
Silicon die				supplier	backside metallization	Gold (Au)	7440-57-5		0.003	mg	1698	9
Silicon die				supplier	backside metallization	Nickel (Ni)	7440-02-0		0.015	mg	8489	47
Leadframe	Copper and its alloy	160.073	mg	supplier	Alloy	Copper(CU)	7440-50-8		159.865	mg	998701	499578
Leadframe				supplier	Alloy	Iron(Fe)	7439-89-6		0.16	mg	1000	500
Leadframe				supplier	Alloy	Iron Phosphide (FeP)	26508-33-8		0.048	mg	300	150
Die Attach	Other Organic Material	1.028	mg	supplier	Soft Solder	Tin(Sn)	7440-31-5		0.021	mg	20428	66
Die Attach				supplier	Soft Solder	Silver(Ag)	7440-22-4		0.026	mg	25292	81
Die Attach				JIG - R	Soft Solder	Lead	7439-92-1	7a-Lead in high me	0.981	mg	954280	3066
Bonding wire	Other Inorganic Material	0.195	mg	supplier	Bonding wire	Copper(CU)	7440-50-8		0.195	mg	1000000	609
Encapsulation	Other Organic Material	154.247	mg	supplier	Molding compound	Silica fused	60676-86-0		135.737	mg	879998	424178
Encapsulation				supplier	Molding compound	Epoxy resin	proprietary		13.111	mg	85000	40972
Encapsulation				supplier	Molding compound	Phenolic resin	proprietary		4.628	mg	30004	14463
Encapsulation				supplier	Molding compound	Mixed siloxanes	proprietary		0.54	mg	3501	1688
Encapsulation				supplier	Molding compound	Pigment	proprietary		0.231	mg	1498	722
Finishing	Other Inorganic Material	2.69	mg	supplier	Connection Coating	Tin(Sn)	7440-31-5		2.69	mg	1000000	8406