



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

*: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	20/05/2013
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 *	Arcidiacono Salvatore	Representative Title	APM & IPD 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
L4981AD013TR	B5Z7*U509CB6	A	ZY1A	20/05/2013
Amount		UoM	Unit type	ST ECOPACK Grade
534.52		mg	Each	ECOPACK® 2

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

Package Designator	Size	Nbr of instances	Shape
SOJ	12.80 X 7.50 X 2.50	20	gull wing
Comment			

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-19 December 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	BSZ7*U509CB6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	8.294	mg	supplier	die	Silicon (Si)	7440-21-3		8.067	mg	972631	15092
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.046	mg	5546	86
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.026	mg	3135	49
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.109	mg	13142	204
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.005	mg	603	9
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.041	mg	4943	77
Leadframe	Copper & its alloys	272.428	mg	supplier	alloy	Copper (Cu)	7440-50-8		264.416	mg	970590	494679
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		6.219	mg	22828	11635
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.374	mg	1373	700
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.326	mg	1197	610
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		1.093	mg	4012	2045
Die attach	Other inorganic materials	1.845	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		1.477	mg	800542	2763
Die attach				supplier	glue or tape	Bisphenol F type epoxy resin	9003-36-5		0.148	mg	80217	277
Die attach				supplier	glue or tape	Epoxy resin	68475-94-5		0.055	mg	29810	103
Die attach				supplier	glue or tape	2,6-Diglycidyl phenyl allyl ether	EC 417-470-1		0.055	mg	29810	103
Die attach				supplier	glue or tape	Gamma Butyrolactone	96-48-0		0.055	mg	29810	103
Die attach				supplier	glue or tape	Polyoxypropylenediamine	9046-10-0		0.055	mg	29810	103
Bonding wire	Precious metal	0.489	mg	supplier	wire	Gold (Au)	7440-57-5		0.489	mg	1000000	915
encapsulation	Other organic materials	248.013	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		19.841	mg	80000	37119
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		9.921	mg	40002	18561
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		215.523	mg	868999	403208
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.24	mg	5000	2320
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		1.488	mg	6000	2784
connections coating	Solder	2.951	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.951	mg	1000000	5521