



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 *	2014-05-28
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 *	Giovanni Giacopello	Representative Title	AMS & 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


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard

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
	A527*U018ECZ	A	MU1A	2014-05-28
Amount	UoM	Unit type	ST ECOPACK Grade	
534.52	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	250	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	12.8X7.5X2.5	20	gull wing	
Comment	Package: SO 20 .30 TO JEDEC MS-013; MDF valid for L4972AD; L4972AD013TR			

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)	true
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-16th December 2013				
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	ASZ7*U018ECZ					
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	13.972	mg	supplier	die	Silicon (Si)	7440-21-3		13.685	mg	979459	25602
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.084	mg	6012	157
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.076	mg	5439	142
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.117	mg	8374	219
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	72	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	143	4
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	501	13
Leadframe	Copper & its alloys	173.625	mg	supplier	alloy	Copper (Cu)	7440-50-8		173.321	mg	998249	324255
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.08	mg	461	150
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.146	mg	841	273
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	409	133
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	29	9
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	12	4
Die attach	Other Organic Materials	2.375	mg	supplier	glue	Silver (Ag)	7440-22-4		1.781	mg	749895	3332
Die attach				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.587	mg	247158	1098
Die attach				supplier	glue	tert-butanol	75-65-0		0.002	mg	842	4
Die attach				supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.005	mg	2105	9
Bonding wire	Other inorganic materials	0.439	mg	supplier	wire	Gold (Au)	7440-57-5		0.439	mg	1000000	821
encapsulation	Other Organic Materials	344.109	mg	supplier	mold compound	Silica, vitreous	60676-86-0		275.287	mg	799999	515017
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		24.088	mg	70001	45065
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		13.764	mg	39999	25750
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		20.647	mg	60001	38627
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		4.129	mg	11999	7725
encapsulation				JIG J	mold compound	Brominated Epoxy Resin	40039-93-8		5.162	mg	15001	9657
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.032	mg	2999	1931