



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-05-16
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG MD 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/web/en/support/support.html		

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
	CUWY*0321AD6	A	Z8GA	2016-05-16
Amount	UoM	Unit type	ST ECOPACK Grade	
16.37	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.9x1.6.1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for TS321AILT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	true
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
Query				Response
1 - Product(s) 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	CUWY*0321AD6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	0.651	mg	supplier	die	Silicon (Si)	7440-21-3		0.640	mg	983103	39096
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	7680	305
				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	4608	183
				supplier	Passivation	Silicon Oxide	7631-86-9		0.003	mg	4608	183
Leadframe	Copper & its alloys	6.269	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.110	mg	974637	373244
				supplier	alloy	Iron (Fe)	7439-89-6		0.144	mg	22970	8797
				supplier	alloy	Phosphorus (P)	12185-10-3		0.008	mg	1276	489
				supplier	alloy	Nickel (Ni)	7440-02-0		0.007	mg	1117	428
Bonding wires	Precious metals	0.116	mg	supplier	wire	Gold (Au)	7440-57-5		0.116	mg	1000000	7086
Encapsulation	Other Organic Materials	8.888	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.743	mg	83596	45388
				supplier	mold compound	Phenol Resin	26834-02-6		0.372	mg	41854	22724
				supplier	mold compound	Silica, vitreous	60676-86-0		7.671	mg	863074	468601
				supplier	mold compound	Carbon black	1333-86-4		0.046	mg	5176	2810
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.056	mg	6301	3421
connections coating	Solder	0.351	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.351	mg	1000000	21442