



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 *	2017-01-27
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
	EYWY*7221AR6	A	ZS1A	2017-01-27
Amount	UoM	Unit type	ST ECOPACK Grade	
16.375	mg	Each	ECOPACK® 3	

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	
tin is used or other bulk terminati	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2.9x1.6x1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for TS7221AILT-TS7221BILT			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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-12th January 2017				
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						Mfr Item Name	EYWY*7221AR6					
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	0.657	mg	supplier	die	Silicon (Si)	7440-21-3		0.652	mg	992390	39817
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	3044	122
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3044	122
Leadframe	Copper & its alloys	7.091	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.001	mg	1522	61
				supplier	alloy	Copper (Cu)	7440-50-8		6.830	mg	963193	417099
				supplier	alloy	Iron (Fe)	7439-89-6		0.160	mg	22564	9771
				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		0.002	mg	282	122
				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1269	550
				supplier	metallization	Nickel (Ni)	7440-02-0		0.082	mg	11564	5008
	Precious metals			supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	987	427
	Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	141	61
Die attach	Other Organic Materials	0.077	mg	supplier	glue	Silver	7440-22-4		0.055	mg	714286	3359
				supplier	glue	methylene diacrylate	42594-17-2		0.013	mg	168831	794
				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.003	mg	38961	183
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.003	mg	38961	183
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12987	61
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.002	mg	25974	122
Bonding wires	Precious metals	0.148	mg	supplier	wire	Gold (Au)	7440-57-5		0.148	mg	1000000	9038
Encapsulation	Other Organic Materials	8.404	mg	supplier	mold compound	Epoxy Resin	25068-38-6		0.234	mg	27844	14290
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.127	mg	15112	7756
				supplier	mold compound	Phenolic resin	29690-82-2		0.352	mg	41885	21496
				supplier	mold compound	Silica	60676-86-0		6.816	mg	811042	416244
				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1904	977
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.157	mg	18682	9588
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.702	mg	83532	42870