

Materials Declaration Form

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

Supplier Information	upplier Information							
Company Name *	STMicroelectronics	Response Date *	2015-04-16					
Contact Name *	Refer to " Supplier Comment" section	Contact Title Refer to " Supplier Comment" section						
Contact Phone *	Refer to " Supplier Comment" section	er to "Supplier Comment" section Contact Email * Refer to "Supplier Comment" section						
Authorized Representative *	Ploriana SAN BIAGIO Representative Title AMS Materials Declaration		AMS Materials Declaration Champion					
Representative Phone *	Refer to " Supplier Comment" section	Representative Email *	Refer to "Supplier Comment" section					
Supplier Comment	Online Technical Support - STMicroele	line 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

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 omprehensive 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									
	IYWY*3021BTJ	А	ZS1A	2015-04-16					
	Amount	UoM	Unit type	ST ECOPACK Grade					
	16.37	mg	Each	ECOPACK® 2					

Manufacturing information								
J-STD-020 MSL Rating Classification Temp Nbr of Reflow Cycles								
1 260		3						
bulk Solder Termination Terminal Plating		Terminal Base Alloy	Comment	life.augmented				
Not Applicable; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		morady normed				

Package Designator	Package Designator Size		Shape	
DSO 2.9 - 1.6 - 1.05		5	gull wing	
Comment	Package: SOT 23-5; MDF valid for TS30	21ILT		

QueryList: ROHS directive 2011/65/EU _ July 2011							
	Response						
Product(s) meets EU RoHS requirement w	ithout any exemptions	true					
Product(s) meets EU RoHS requirements 6	false						
Product(s) meets EU RoHS requirements b	false						
Product(s) does not meet EU RoHS require	false						
Product(s) is obsolete, no information is a	false						
Product(s) is unknown, no information is a	false						
Exemption Id. Description							

QueryList: REACH-17th December 2014								
Query Response								
The product does not contain REACH Sub-	true							
CategoryLevel_Name	ppm in product							

Material Composition Declaration			Mfr Item Name	IYWY*	3021BTJ	1BTJ						
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	0.397	mg	supplier	die	Silicon (Si)	7440-21-3		0.385	mg	969773	23519
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	7557	183
Silicon die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.001	mg	2519	61
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.008	mg	20151	489
Leadframe	Copper & its alloys	6.901	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.618	mg	958991	404276
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.181	mg	26228	11057
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	290	122
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1304	550
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	12027	5070
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	1014	428
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	145	61
Die attach	Other inorganic materials	0.078	mg	supplier	glue	Silver (Ag)	7440-22-4		0.056	mg	717949	3421
Die attach				supplier	glue	methylene diacrylate	42594-17-2		0.013	mg	166667	794
Die attach				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.003	mg	38462	183
Die attach				supplier	glue	Bismaleimide resin	Proprietary		0.003	mg	38462	183
Die attach				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12821	61
Die attach				supplier	glue	Dicumlyl peroxide	80-43-3		0.002	mg	25641	122
Bonding wire	Precious metals	0.151	mg	supplier	wire	Gold (Au)	7440-57-5		0.151	mg	1000000	9224
encapsulation	Other inorganic materials	8.843	mg	supplier	mold compound	Epoxy Resin	Proprietary		0.392	mg	44329	23946
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.179	mg	20242	10935
encapsulation				supplier	mold compound	Phenol resin	Proprietary		0.357	mg	40371	21808
encapsulation				supplier	mold compound	Silica	60676-86-0		6.957	mg	786724	424985
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.036	mg	4071	2199
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.209	mg	23635	12767
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.713	mg	80629	43555