



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 *	2016-09-13
Contact Name *	Refer to Supplier Comment section	Representative Title	AMS MD CHAMPION
Authorized Representative *	Floriana SAN BIAGIO	Representative Email *	Refer to Supplier Comment section
Representative Phone *	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

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
	MABZ*VB48AAI	A	Z6RA	2016-09-13
Amount	UoM	Unit type	ST ECOPACK Grade	
0.51	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Tin/Silver/Copper (SAC405)	Not Applicable	N/A		

Package Designator	Size	Nbr of instances	Shape
BGA	1.8x1.8x0.221	4	No lead
Comment	A0SC CSPS0.35; MDF valid for LDLN025J18R		

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-27th June 2018				
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	MABZ*VB48AAI									
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	0.445	mg	supplier	die	Silicon (Si)	7440-21-3		0.222	mg	499101	478448				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	6745	6466				
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	4496	4310				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2248	2155				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	13489	12931				
				supplier	bump	Tin (Sn)	7440-31-5		0.195	mg	438399	420259				
				supplier	bump	Silver (Ag)	7440-22-4		0.008	mg	17536	16810				
				supplier	bump	Copper (Cu)	7440-50-8		0.008	mg	17986	17241				
				Underfill	Other Organic Materials	0.070	mg	supplier	resin	silica vitreous	60676-86-0		0.034	mg	485714	73276
								supplier	resin	Epoxy resin	Proprietary		0.012	mg	171429	25862
supplier	resin	Acrylic polymer	Proprietary						0.012	mg	171429	25862				
supplier	resin	Bis-phenol A diglycidyl ether	25036-25-3						0.004	mg	57143	8621				
supplier	resin	Iron compound	7439-89-6						0.004	mg	57143	8621				
supplier	resin	Zinc compound	7440-66-6						0.004	mg	57143	8621				