



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 *	2016-03-30
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
	BZZM*16VAYFL	A	BO2A	2016-03-30
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK® 1	
	Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	Package: 07 SO 08 .15 JEDEC; MDF valdi for STM813LM6F			

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	BZZM*16VAYFL										
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	1.329	mg	supplier	die	Silicon (Si)	7440-21-3		1.306	mg	982694	16325					
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	3762	63					
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	1505	25					
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	752	13					
				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	2257	38					
Leadframe	Copper & its alloys	31.810	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	9029	150					
				supplier	alloy	Copper (Cu)	7440-50-8		30.923	mg	972116	386538					
				supplier	alloy	Iron (Fe)	7439-89-6		0.727	mg	22854	9088					
	Nickel (Ni)	Precious metals			supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.044	mg	1383	550				
					supplier	alloy	Zinc (Zn)	7440-66-6		0.038	mg	1195	475				
					supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	2232	888				
					supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	157	63				
					supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	63	25				
					Die attach	Other Organic Materials	0.438	mg	supplier	glue	Silver (Ag)	7440-22-4		0.328	mg	748858	4100
									supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.108	mg	246575	1350
				supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.002	mg	4566	25					
Bonding wires	Precious metals	0.077	mg	supplier	wire	Gold (Au)	7440-57-5		0.077	mg	1000000	963					
Encapsulation	Other Organic Materials	46.346	mg	supplier	mold compound	Silica, vitreous	60676-86-0		37.076	mg	799983	463450					
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		4.635	mg	100009	57938					
				supplier	mold compound	phenol resin	9003-35-4		2.317	mg	49994	28963					
				supplier	mold compound	Brominated epoxy resin	40039-93-8		0.927	mg	20002	11588					
				supplier	mold compound	Antimony Trioxide	1309-64-4		0.927	mg	20002	11588					
				supplier	mold compound	Carbon Black	1333-86-4		0.464	mg	10012	5800					