



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 *	2017-06-07
Company Unique ID	NL 008751171801		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	Representative Title	MDG 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
STM32L431CBT6	S35B*435XXXZ	A	998Z	18-07-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	196	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
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used or other bulk termination : add in comments	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7X1.4	48	L Bend	
Comment	Package : 5B LQFP 48 7x7x1.4 1 0110596			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	S35B*435XXXZ				4999999,0	1000000,0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	9,115	mg	supplier	die	Silicon (Si)	7440-21-3		8,775	mg	962699	44772
				supplier	metallization	Aluminium (Al)	7429-90-5		0,016	mg	1755	82
				supplier	metallization	Copper (Cu)	7440-50-8		0,144	mg	15798	735
				supplier	metallization	Tantalum (Ta)	7440-25-7		0,047	mg	5156	240
				supplier	metallization	Titanium (Ti)	7440-32-6		0,002	mg	219	10
				supplier	metallization	Tungsten (W)	7440-33-7		0,001	mg	110	5
				supplier	Passivation	Silicon Nitride	12033-89-5		0,037	mg	4059	189
				supplier	Passivation	Silicon Oxide	7631-86-9		0,093	mg	10203	475
				supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2,563	mg	22000	13076
Mold Compound_EME-G631SHQ_Sun	Other Organic Materials	117,344	mg	Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2,563	mg	22000	13076
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		6,523	mg	56000	33283
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		91,769	mg	780450	468222
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13,200	mg	113320	67351
				Supplier	Non-metals	Carbon Black	1333-86-4		0,726	mg	6230	3703
Wire_AG Si TYPE_MKE	Bonding Wire	0,380	mg	Supplier	Metals	Silver	7440-22-4		0,364	mg	960000	1859
				Supplier	Metals	Others	Proprietary		0,015	mg	40000	77
Plating anode_Pure Tin_Nuo Nengda	Other inorganic materials	1,078	mg	Supplier	Metals	Tin	7440-31-5		1,078	mg	1000000	5502
Leadframe_C9+Ag_HDS	Copper & its alloys	68,077	mg	Supplier	Metals	Iron	7439-89-6		1,489	mg	21865	7595
				Supplier	Non-metals	Phosphorus	7723-14-0		0,050	mg	730	254
				Supplier	Metals	Zinc	7440-66-6		0,077	mg	1125	391
				Supplier	Metals	Copper	7440-50-8		62,170	mg	913235	317206
				Supplier	Metals	Silver	7440-22-4		4,289	mg	63000	21883
				JIG-R	Metals	Lead	7439-92-1		0,003	mg	45	16