




## Materials Declaration Form

<b>IPC Form Type *</b>	<b>1752</b> Distribute	<b>Version</b>	<b>2</b>
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2018-09-04</b>
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>MDG MD CHAMPION</b>	<b>Representative Title</b>	<b>MDG MD CHAMPION</b>
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

Uncertainty Statement			
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Legal Statement			
<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L051C8T6 STM32L051C8T6TR	S15B*417XXXX	A	998Z	2018-09-04
Amount	UoM	Unit type	ST ECOPACK Grade	
190.98	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	
able; if coating is used or other bulk	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 :						Mfr Item Name	S15B*417XXX				5999999.0	0.0
note : Substance present with less 0.001mg will not be declared in this document												
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	4.860	mg	supplier	die	Silicon (Si)	7440-21-3		4.709	mg	968930	24657
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	2675	68
				supplier	metallization	Copper (Cu)	7440-50-8		0.044	mg	9053	230
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	1029	26
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	1440	37
				supplier	Passivation	Silicon Nitride	12033-89-5		0.012	mg	2469	63
				supplier	Passivation	Silicon Oxide	7631-86-9		0.070	mg	14403	367
Die Attach Epoxy_ABLEBOND 3230_H	M-011 Other inorganic materials	1.278	mg	Supplier	Metals	Silver	7440-22-4		1.151	mg	901000	6028
				Supplier	Plastics/polymers	Highly cross-linked polymer	Proprietary		0.126	mg	99000	662
Mold Compound_EME-G631SHQ_Surf	M-011 Other inorganic materials	120.458	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2.434	mg	21000	13406
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2.434	mg	21000	13406
				Supplier	Plastics/polymers	Phenol Resin	Proprietary		6.492	mg	56000	35750
				Supplier	Glass	Silica(Amorphous)A	60676-86-0		95.006	mg	780450	-526870
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.369	mg	115320	73619
				Supplier	Non-metals	Carbon Black	1333-86-4		0.722	mg	6230	3977
Wire_Ag Si Type_MKE	Bonding Wire	0.309	mg	Supplier	Metals	Silver	7440-22-4		0.297	mg	960000	1634
				Supplier	Others	Others	Proprietary		0.012	mg	40000	68
Plating anode_Pure Tin_Nuo Nengda	M-011 Other inorganic materials	1.078	mg	Supplier	Metals	Tin	7440-31-5		1.078	mg	1000000	5939
Leadframe_C194+Ag_HDS	Copper & its alloys	63.000	mg	Supplier	Metals	Iron	7439-89-6		1.377	mg	21865	7586
				Supplier	Non-metals	Phosphorus	7723-14-0		0.046	mg	730	253
				Supplier	Metals	Zinc	7440-66-6		0.071	mg	1125	390
				Supplier	Metals	Copper	7440-50-8		57.534	mg	913235	316831
				Supplier	Metals	Silver	7440-22-4		3.969	mg	63000	21857
				JIG-R	Metals	Lead	7439-92-1		0.003	mg	45	16