




## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>29-11-2017</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>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
STM32L082KBU6	S5MG*447XXXZ	A	998Z	29-11-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	48.36	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5X5X0.55	32	No lead	
Comment	Package : A0B8 UFQFPN 5X5X0.55 32L 0.5 MM PITCH 8202208			

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	SSMG*447XXXZ				6000001.0	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	4.136	mg	supplier	die	Silicon (Si)	7440-21-3		3.831	mg	926257	79218				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	6528	558				
				supplier	metallization	Copper (Cu)	7440-50-8		0.088	mg	21277	1820				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	2418	207				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	3143	269				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	242	21				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.024	mg	5803	496				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.142	mg	34333	2936				
				Supplier	Plastics/polymers	Silver	7440-22-4		0.734	mg	704535	15172				
				Supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.050	mg	48437	1043				
Die Attach Epoxy _8290 _Henkel	M-011 Other inorganic materials	1.041	mg	Supplier	Plastics/polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.050	mg	48437	1043				
				Supplier	Plastics/polymers	Gamma Butyrolactone	96-48-0		0.050	mg	48437	1043				
				Supplier	Plastics/polymers	Epoxy Resin	Proprietary		0.050	mg	48437	1043				
				Supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.050	mg	48437	1043				
				Supplier	Metallic compounds	Copper Oxide	1317-38-0		0.050	mg	48437	1043				
				Supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.005	mg	4844	104				
				Mold Compound_EME-G770_Sumitor	M-011 Other inorganic materials	15.737	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		0.318	mg	19837	6580
								Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		0.318	mg	19837	6580
								Supplier	Plastics/polymers	Phenol Resin A	Proprietary		0.318	mg	19837	6580
								Supplier	Plastics/polymers	Phenol Resin B	Proprietary		0.318	mg	19837	6580
Supplier	Glass	Silica (Amorphous) A	60676-86-0						11.445	mg	732452	236659				
Supplier	Glass	Silica (Amorphous) B	7631-86-9						2.611	mg	162767	53991				
Supplier	Metallic compounds	Metal Hydroxide	Proprietary						0.318	mg	19837	6580				
Supplier	Additives	Carbon Black	1333-86-4						0.090	mg	5595	1856				
Supplier	Metals	Silver	7440-22-4						0.115	mg	960000	2368				
Supplier	Others	Others	Proprietary						0.005	mg	40000	99				
Anode Ball_Pure Tin_Nuonengda	M-011 Other inorganic materials	0.327	mg	Supplier	Metals	Tin	7440-31-5		0.327	mg	1000000	6757				
Lead frame_C7+Ag_MITSUI	Copper & its alloys	27.000	mg	Supplier	Metals	Copper	7440-50-8		25.607	mg	948400	529501				
				Supplier	Metals	Nickel	7440-02-0		0.799	mg	29600	16526				
				Supplier	Glass	Silicon	7440-21-3		0.173	mg	6400	3573				
				Supplier	Metals	Magnesium	7439-95-4		0.041	mg	1500	837				
				Supplier	Metals	Silver	7440-22-4		0.381	mg	14100	7872				