




## 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>
<b>* : Required Field</b>			

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>21-12-2017</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>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
STM32F217IEH6	P7MR*411XXXV	A	9996	21-12-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	111.00	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	
NAC	Tin/Silver	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	10x10x0.6	176+25	No lead	
Comment	Package : A0E7 UFBGA 10X10X0.6 176+25 P0.65 8249558			

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	P7MR*411XXXV				4999999.0	999998.0
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	5.431	mg	supplier	die	Silicon (Si)	7440-21-3		4.931	mg	907936	44423
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	4419	216
				supplier	metallization	Copper (Cu)	7440-50-8		0.211	mg	38851	1901
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	184	9
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.068	mg	12521	613
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	552	27
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	368	18
				supplier	Passivation	Silicon Nitride	12033-89-5		0.054	mg	9943	486
				supplier	Passivation	Silicon Oxide	7631-86-9		0.137	mg	25226	1234
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Encapsulation	M-011 Other inorganic materials	58.469	mg	supplier	Mold compound	Silica, vitreous [ Fused Silica ]	60676-86-0		51.730	mg	884742	466036
				supplier	Mold compound	Epoxy resins	Proprietary		2.344	mg	40090	21117
				supplier	Mold compound	Phenolic resins	Proprietary		1.758	mg	30067	15838
				supplier	Mold compound	Carbon black	1333-86-4		0.293	mg	5011	2640
				supplier	Mold compound	Metal Hydroxide	Proprietary		1.758	mg	30067	15838
				supplier	Mold compound	Other miscellaneous substances	Proprietary		0.586	mg	10022	5279
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Substrate	M-011 Other inorganic materials	40.200	mg	supplier	Core	organic resin	Proprietary		2.829	mg	70373	25486
				supplier	Core	Silicon dioxide	7631-86-9		1.599	mg	39776	14405
				supplier	Core	Other inorganic filler	Proprietary		1.599	mg	39776	14405
				supplier	Core	Glass fiber	65997-17-3		6.273	mg	156045	56514
				supplier	Solder mask	Organic resin	Proprietary		3.705	mg	92164	33378
				supplier	Solder mask	Inorganic filler	Proprietary		1.995	mg	49627	17973
				supplier	Cu Coil	Copper	7440-50-8		15.100	mg	375622	136036
				supplier	Ni Plating	Nickel	7440-02-0		5.800	mg	144279	52252
				supplier	Au Plating	Gold	7440-57-5		1.300	mg	32338	11712
				supplier	Bonding wire	Gold	7440-57-5		0.700	mg	1000000	6306
Bonding wire	M-011 Other inorganic materials	0.700	mg	supplier	Bonding wire	Gold	7440-57-5		0.700	mg	1000000	6306
				supplier	Bonding wire	Gold	7440-57-5		0.700	mg	1000000	6306
Solderball	M-011 Other inorganic materials	6.200	mg	supplier	Solder	Tin	7440-31-5		5.983	mg	965000	53901
				supplier	Solder	Silver	7440-22-4		0.217	mg	35000	1955