



## 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>

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2017-04-10</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
STM32F427AGH6	P5OQ*419XXB	A	9996	2017-04-10
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.16	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	
SOLDERBALL (Sn96.5Ag3.5)	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	7x7x0.6	169	No lead	
Comment	Package : A0YV UFBGA 7X7X0.6 169L P 0.5 MM 8502430			

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- 7th July 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	P5OQ*419XXXB				10000000.0	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	5.624	mg	supplier	die	Silicon (Si)	7440-21-3		4.444	mg	790185	61585
				supplier	metallization	Aluminium (Al)	7429-90-5		0.082	mg	14580	1136
				supplier	metallization	Copper (Cu)	7440-50-8		0.536	mg	95306	7428
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	356	28
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.075	mg	13336	1039
				supplier	metallization	Tungsten (W)	7440-33-7		0.241	mg	42852	3340
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	11202	873
				supplier	Passivation	Silicon Oxide	7631-86-9		0.181	mg	32183	2508
SUBSTRATE (DS7409HGB) Core	M-011 Other inorganic materials	20.090	mg	supplier	CORE	Organic resin	Proprietary		4.621	mg	230000	64034
				supplier	CORE	Other inorganic filler	Proprietary		5.223	mg	260000	72386
				supplier	CORE	Glass fiber	65997-17-3		10.246	mg	510000	141989
SUBSTRATE (DS7409HGB) Cu Foil	M-011 Other inorganic materials	5.660	mg	supplier	CU FOIL	Copper (Cu)	7440-50-8		5.660	mg	1000000	78437
SUBSTRATE (DS7409HGB) Solder Mask	M-011 Other inorganic materials	4.900	mg	supplier	SOLDERMASK	Organic resin	Proprietary		3.185	mg	650000	44138
				supplier	SOLDERMASK	Inorganic filler	Proprietary		1.715	mg	350000	23767
SUBSTRATE (DS7409HGB) Ni	M-011 Other inorganic materials	3.020	mg	supplier	NI PLATING	Nickel (Ni)	7440-02-0		3.020	mg	1000000	41851
SUBSTRATE (DS7409HGB) Au	M-011 Other inorganic materials	0.430	mg	supplier	AU PLATING	Gold (Au)	7440-57-5		0.430	mg	1000000	5959
DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	1.381	mg	supplier	GLUE	Epoxy resin	Proprietary		1.353	mg	979725	18750
				supplier	GLUE	Filler	Proprietary		0.028	mg	20275	388
BONDING WIRE (MKE 4N)	M-011 Other inorganic materials	0.670	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.670	mg	1000000	9285
SOLDERBALL (Sn96.5Ag3.5)	M-011 Other inorganic materials	5.248	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		5.064	mg	964939	70177
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.184	mg	35061	2550
ENCAPSULATION (GE-100LFC5)	M-011 Other inorganic materials	25.137	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		22.105	mg	867668	-693666
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		3.032	mg	132332	42018