Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D *** : Required Field**

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	22-10-2018
Company Unique ID	NL 008751171B01		
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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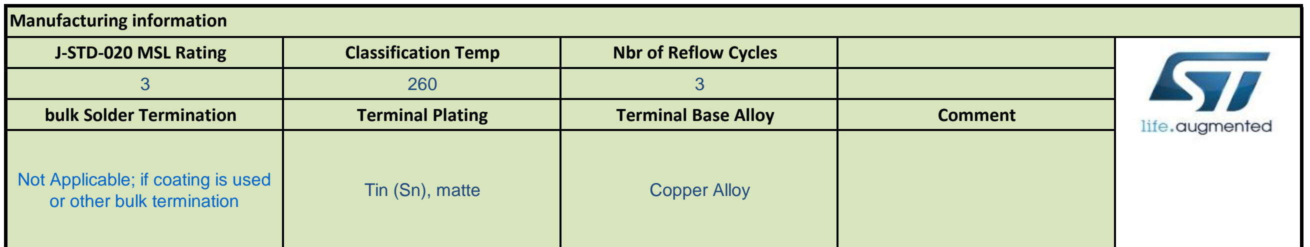
Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard

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 omprehensive 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**
STM32F423VHH6	P2MJ*463XXXA	A	9996	22-10-2018
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	64.00	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**		
3	260	3		
bulk Solder Termination	**Terminal Plating**	**Terminal Base Alloy**	**Comment**	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	7x7x0.6	100	No lead	
Comment	Package : A0C2 UFBGA 7x7x0.60 100L R12sq P0.5 8219030			

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-27th June 2018	
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	P2MJ*463XXXA				6000000.0	999999.0
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	3.592	mg	supplier	die	Silicon (Si)	7440-21-3		2.838	mg	790089	44344
				supplier	metallization	Aluminium (Al)	7429-90-5		0.053	mg	14755	828
				supplier	metallization	Copper (Cu)	7440-50-8		0.342	mg	95212	5344
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	278	16
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.048	mg	13363	750
				supplier	metallization	Tungsten (W)	7440-33-7		0.154	mg	42873	2406
				supplier	Passivation	Silicon Nitride	12033-89-5		0.040	mg	11136	625
				supplier	Passivation	Silicon Oxide	7631-86-9		0.116	mg	32294	1813
SUBSTRATE	M-011 Other inorganic materials	24.361	mg	supplier	CORE	Organic resin	Proprietary		1.654	mg	67895	25844
				supplier	CORE	Other inorganic filler	Proprietary		1.869	mg	76721	29203
				supplier	CORE	Glass fiber	65997-17-3		3.667	mg	150527	57297
				supplier	SOLDERMASK	Organic resin	Proprietary		3.802	mg	156069	59406
				supplier	SOLDERMASK	Inorganic filler	Proprietary		2.047	mg	84028	31984
				supplier	CU FOIL	Copper (Cu)	7440-50-8		8.098	mg	332417	126531
				supplier	PLATING	Nickel (Ni)	7440-02-0		2.796	mg	114774	43688
				supplier	PLATING	Gold (Au)	7440-57-5		0.428	mg	17569	6688
DIE ATTACH	M-011 Other inorganic materials	0.551	mg	supplier	GLUE	Butadiene, acrylonitrile polymer, carboxy-term	68610-41-3		0.330	mg	598911	5156
				supplier	GLUE	Phenol polymer with formaldehyde, glycidyl et	9003-35-4		0.055	mg	99819	859
				supplier	GLUE	Phenol-formaldehyde polymer	28064-14-4		0.055	mg	99819	859
				supplier	GLUE	Dapsone	80-08-0		0.055	mg	99819	859
				supplier	GLUE	Reaction product: bisphenol-A- (epichlohydrin	25068-38-6		0.006	mg	10889	94
				supplier	GLUE	Other Substances	Proprietary		0.050	mg	90744	781
BONDING WIRE	M-011 Other inorganic materials	1.047	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.047	mg	1000000	16359
SOLDERBALL	M-011 Other inorganic materials	3.109	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		3.000	mg	964940	46875
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.109	mg	35060	1703
ENCAPSULATION	M-011 Other inorganic materials	31.340	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		27.519	mg	878040	429984
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		2.824	mg	90137	44125
				supplier	MOLDING COMPOUND	Phenolic Resins	Proprietary		0.831	mg	26524	12984
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.166	mg	5298	2594