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 *	23-03-2018
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		

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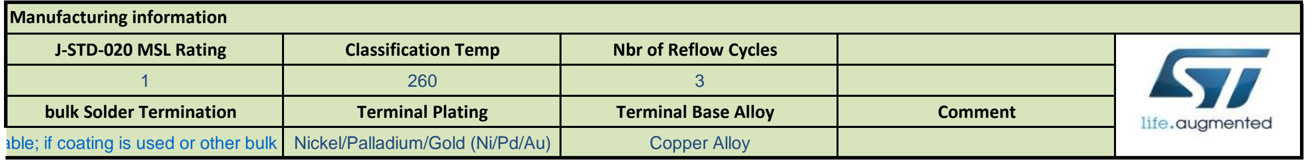
Legal Statement

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
STM32L031F6P7	P0YA*425XXXX	A	9998	23-03-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.000	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
able; if coating is used or other bulk	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
TSSOP	4.4x6.5x0.9	20	L Bend	
Comment	Package : YA TSSOP 20 BODY 4.4 PITCH 0.65 0087225			

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**	**P0YA*425XXXX**				6000000.0	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	3.604	mg	supplier	die	Silicon (Si)	7440-21-3		3.453	mg	958102	47958
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	3607	181
				supplier	metallization	Copper (Cu)	7440-50-8		0.044	mg	12209	611
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.005	mg	1387	69
				supplier	metallization	Titanium (Ti)	7440-32-6		0.007	mg	1942	97
				supplier	Passivation	Silicon Nitride	12033-89-5		0.012	mg	3330	167
				supplier	Passivation	Silicon Oxide	7631-86-9		0.070	mg	19423	972
LEADFRAME (MSHE - C7025)	Copper and its alloy	32.442	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		31.209	mg	962000	433461
			mg	supplier	ALLOY	Nickel (Ni)	7440-02-0		0.973	mg	30000	13518
			mg	supplier	ALLOY	Silicon (Si)	7440-21-3		0.211	mg	6500	2929
			mg	supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.049	mg	1500	676
LEADFRAME (MSHE - PPF Plating)	M-011 Other inorganic materials	0.839	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.814	mg	970000	11303
			mg	supplier	COATING	Palladium (Pd)	7440-05-3		0.013	mg	15000	175
			mg	supplier	COATING	Gold (Au)	7440-57-5		0.013	mg	15000	175
DIE ATTACH (Henkel - 8290)	M-011 Other inorganic materials	0.978	mg	supplier	GLUE	Silver(Ag)	7440-22-4		0.743	mg	760000	10323
			mg	supplier	GLUE	Reaction product: bisphenol-F-(epichlorhydrin	9003-36-5		0.068	mg	70000	951
			mg	supplier	GLUE	Fatty acids, C18-unsatd., dimers, polymers wit	68475-94-5		0.039	mg	40000	543
			mg	supplier	GLUE	.gamma. Butyrolactone	96-48-0		0.039	mg	40000	543
			mg	supplier	GLUE	Polyoxyalkylene amine	9046-10-0		0.039	mg	40000	543
			mg	supplier	GLUE	Epoxy Resin	Proprietary		0.039	mg	40000	543
			mg	supplier	GLUE	Epoxy Resin Modifier	Proprietary		0.005	mg	5000	68
			mg	supplier	GLUE	Substituted Silane	Proprietary		0.005	mg	5000	68
BONDING WIRE (Heesung - Au HTS)	M-011 Other inorganic materials	0.270	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.267	mg	990050	3713
			mg	supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.003	mg	9900	37
			mg	supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	50	0
ENCAPSULATION (Sumitomo - G700K	M-011 Other inorganic materials	33.867	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		2.698	mg	80000	37473
			mg	supplier	MOLDING COMPOUND	Silica Amorphous A (SiO2)	60676-86-0		23.749	mg	700000	329851
			mg	supplier	MOLDING COMPOUND	Silica Amorphous B (SiO2)	7631-86-9		5.059	mg	150000	70263
			mg	supplier	MOLDING COMPOUND	Phenol Resin	205830-20-2		2.175	mg	64500	30213
			mg	supplier	MOLDING COMPOUND	Other Bismuth Compounds	Proprietary		0.017	mg	500	234
			mg	supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.169	mg	5000	2342