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 *	14-03-2019
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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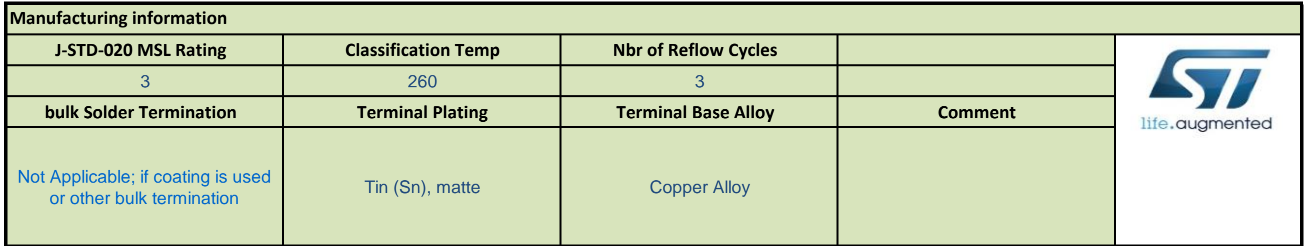
Legal Statement

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**
STM32F745IET6	Y51T*449XXXZ	A	9991	14-03-2019
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	1649.99	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**	
LQFP	24x24x1.4	176		
Comment	Package : 1T LQFP 176 24x24x1.4 0110489			

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	Y51T*449XXXZ				5999999.0	1000001.7
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	18.813	mg	supplier	die	Silicon (Si)	7440-21-3		17.565	mg	933663	10646
				supplier	metallization	Aluminium (Al)	7429-90-5		0.087	mg	4624	53
				supplier	metallization	Copper (Cu)	7440-50-8		0.567	mg	30139	344
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	106	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.079	mg	4199	48
				supplier	metallization	Tungsten (W)	7440-33-7		0.255	mg	13554	155
				supplier	Passivation	Silicon Nitride	12033-89-5		0.066	mg	3508	40
				supplier	Passivation	Silicon Oxide	7631-86-9		0.192	mg	10206	116
Leadframe	M-011 Other inorganic materials	563.525	mg	supplier	Leadframe	Copper (Cu)	7440-50-8		531.404	mg	943000	322066
					Leadframe	Nickel (Ni)	7440-02-0		18.033	mg	32000	10929
					Leadframe	Silicon (Si)	7440-21-3		4.086	mg	7250	2476
					Leadframe	Magnesium (Mg)	7439-95-4		0.986	mg	1750	598
					Leadframe	Siliver (Ag)	7440-22-4		9.016	mg	16000	5465
Glue (YIZTECH 8143)	M-011 Other inorganic materials	4.700	mg	supplier	Glue or tape	Silver Flake	7440-22-4		3.643	mg	775000	2208
					Glue or tape	Epoxy Acylate	15625-89-5		0.235	mg	50000	142
					Glue or tape	Substiyuted Polyamine	68490-66-4		0.071	mg	15000	43
					Glue or tape	Bisphenol F	28064-14-4		0.470	mg	100000	285
					Glue or tape	2-Ethylhexyl glycidyl ether	2461-15-6		0.282	mg	60000	171
Bonding wire (GPG-3, Tanaka)	Precious metals	4.050	mg	supplier	Bonding wire	Au	7440-57-5		4.010	mg	990000	2430
					Bonding wire	Pd	7440-05-3		0.041	mg	10000	25
Encapsulation (SUMITOMO EME-G63	M-011 Other inorganic materials	1040.200	mg	supplier	Molding Compound	Epoxy Resin A	Proprietary		26.005	mg	25000	15761
					Molding Compound	Epoxy Resin B	Proprietary		26.005	mg	25000	15761
					Molding Compound	Phenol Resin	Proprietary		41.608	mg	40000	25217
					Molding Compound	Carbon Black	1333-86-4		3.121	mg	3000	1891
					Molding Compound	Silica(Amorphous) A	60676-86-0		822.278	mg	790500	498354
					Molding Compound	Silica(Amorphous) B	7631-86-9		121.183	mg	116500	73445
External Plating	Matte Sn	18.700	mg	supplier	Matte Sn	Tin (Sn)	7440-31-5		18.698	mg	999900	11332
					Solder	Impurities	Proprietary		0.002	mg	100	1