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 ***	2017-11-10
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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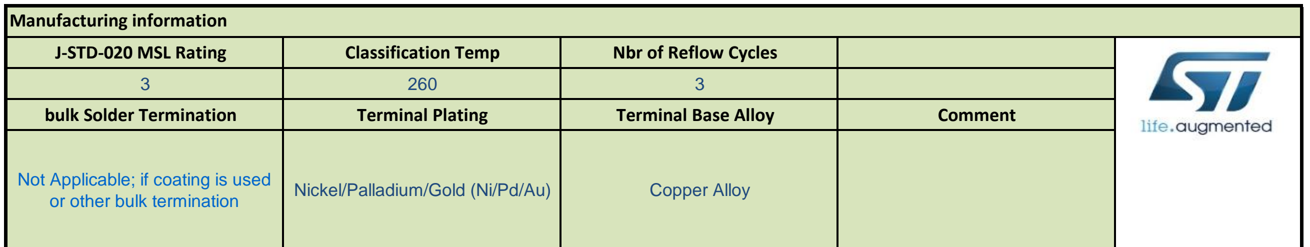
Legal Statement

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**
STM32L4S9ZIT6	P41A*470XXXY	A	998Z	2017-11-10
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	1315.00	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**	
Not Applicable; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
LQFP	20x20x1.4mm	144		
Comment	Package : 1A LQFP 144 20X20X1.4 2 0099183			

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 : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**P41A*470XXXY**				6999999.0	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	25.122	mg	supplier	die	Silicon (Si)	7440-21-3		24.184	mg	962662	18391
				supplier	metallization	Aluminium (Al)	7429-90-5		0.045	mg	1791	34
				supplier	metallization	Copper (Cu)	7440-50-8		0.397	mg	15803	302
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	40	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.129	mg	5135	98
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	199	4
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	119	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.101	mg	4020	77
				supplier	Passivation	Silicon Oxide	7631-86-9		0.257	mg	10230	195
LEADFRAME (MHT - C194)	Copper and its alloy	240.000	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		233.880	mg	974500	177856
				supplier	ALLOY	Iron (Fe)	7439-89-6		5.760	mg	24000	4380
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.288	mg	1200	219
				supplier	ALLOY	Metallic Phosphorous (P)	7723-14-0		0.072	mg	300	55
LEADFRAME (MHT - Top PPF Plating)	M-011 Other inorganic materials	9.300	mg	supplier	COATING	Nickel (Ni)	7440-02-0		9.021	mg	970000	6860
				supplier	COATING	Palladium (Pd)	7440-05-3		0.140	mg	15000	106
				supplier	COATING	Gold (Au)	7440-57-5		0.140	mg	15000	106
DIE ATTACH (Sumitomo - CRM-1076Y	M-011 Other inorganic materials	3.100	mg	supplier	GLUE	Silver(Ag)	7440-22-4		2.170	mg	700000	1650
				supplier	GLUE	Epoxy Resin A	9003-36-5		0.155	mg	50000	118
				supplier	GLUE	Silica fused (SiO2)	7631-86-9		0.310	mg	100000	236
				supplier	GLUE	Dicyandiamide	461-58-5		0.016	mg	5000	12
				supplier	GLUE	Diluent	3101-60-8		0.155	mg	50000	118
				supplier	GLUE	Allyl Compound	Proprietary		0.155	mg	50000	118
				supplier	GLUE	Hardener	Proprietary		0.140	mg	45000	106
BONDING WIRE (IMS Daewon - Au H	M-011 Other inorganic materials	2.400	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		2.376	mg	990050	1807
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.024	mg	9930	18
				supplier	BONDING WIRE	Silver (Ag)	7440-22-4		0.000	mg	15	0
				supplier	BONDING WIRE	Copper (Cu)	7440-50-8		0.000	mg	5	0
ENCAPSULATION (Sumitomo - G631H	M-011 Other inorganic materials	1034.378	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	Proprietary		20.706	mg	20000	15746
				supplier	MOLDING COMPOUND	Epoxy Resin B	85954-11-6		41.412	mg	40000	31492
				supplier	MOLDING COMPOUND	Silica Amorphous A	60676-86-0		811.789	mg	785000	617330
				supplier	MOLDING COMPOUND	Silica Amorphous B	7631-86-9		88.001	mg	85000	66921
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		5.177	mg	5000	3937
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		67.295	mg	65000	51175
FINISHING - (MHT - Bottom PPF Platir	M-011 Other inorganic materials	0.700	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.679	mg	970000	516
				supplier	COATING	Palladium (Pd)	7440-05-3		0.011	mg	15000	8
				supplier	COATING	Gold (Au)	7440-57-5		0.011	mg	15000	8