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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 ***	2018-08-01
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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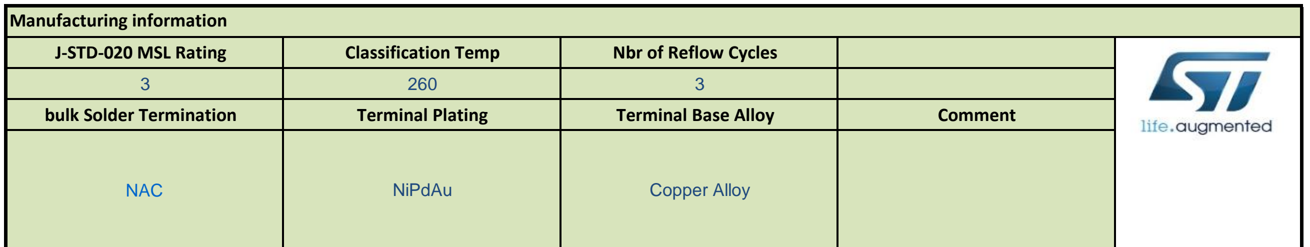
Legal Statement

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**
STM32F038C6T7	MB5B*444XXX1	A	959	2018-08-01
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	180.00	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**	
NAC	NiPdAu	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
QFP	7x7x1.4	48	L Bend	
Comment	Package : 5B LQFP 48 7x7x1.4 1 0110596			

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**	**MB5B*444XXX1**				8000001.0	999994.0
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	-0.001	mg	supplier	die	Silicon (Si)	7440-21-3		-0.286	mg	286000000	-1589
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	-19000000	106
				supplier	metallization	Copper (Cu)	7440-50-8		0.097	mg	-97000000	539
				supplier	metallization	Cobalt (Co)	7440-48-4		0.018	mg	-18000000	100
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	-5000000	28
				supplier	metallization	Tungsten (W)	7440-33-7		0.011	mg	-11000000	61
				supplier	Passivation	Silicon Nitride	12033-89-5		0.013	mg	-13000000	72
				supplier	Passivation	Silicon Oxide	7631-86-9		0.122	mg	-122000000	678
die	M-011 Other inorganic materials	6.910	mg	supplier	die	Silicon (Si)	7440-21-3		6.689	mg	968017	37161
				supplier	metallization	Aluminium (Al)	7429-90-5		0.019	mg	2750	106
				supplier	metallization	Copper (Cu)	7440-50-8		0.019	mg	2750	106
				supplier	metallization	Titanium (Ti)	7440-32-6		0.040	mg	5789	222
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	1158	44
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.013	mg	1881	72
				supplier	passivation	Indium Tin oxide (In203:SnO2)	50926-11-9		0.122	mg	17656	678
Lead-frame	M-011 Other inorganic materials	75.592	mg	supplier	alloy	Copper (Cu)	7440-50-8		72.936	mg	964855	405199
				supplier	alloy	Nickel (Ni)	7440-02-0		2.097	mg	27746	11652
				supplier	alloy	Silicium (Si)	7440-21-3		0.454	mg	6012	2525
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.105	mg	1387	583
Lead-frame Coating	M-011 Other inorganic materials	0.403	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.369	mg	914840	2048
				supplier	coating	Palladium (Pd)	7440-05-3		0.012	mg	29660	66
				supplier	coating	Gold (Au)	7440-57-5		0.011	mg	27750	62
				supplier	coating	Silver (Ag)	7440-22-4		0.011	mg	27750	62
Die Attach	M-011 Other inorganic materials	1.954	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		1.505	mg	770000	8359
				supplier	glue or soft solder	Epoxy Cresol Novolak	29690-82-2		0.442	mg	226000	2454
				supplier	glue or soft solder	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.008	mg	4000	43
Wires	M-011 Other inorganic materials	0.538	mg	supplier	Bonding wire	Silver (Ag)	7440-22-4		0.519	mg	965000	2884
				supplier	Bonding wire	Gold (Au)	7440-57-5		0.003	mg	5000	15
				supplier	Bonding wire	Palladium (Pd)	7440-05-3		0.016	mg	30000	90
Encapsulation	M-011 Other inorganic materials	94.600	mg	supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		6.786	mg	71735	37700
				supplier	Moulding Compound	Phenol Resin	Proprietary		4.847	mg	51239	26929
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		82.191	mg	868828	456617
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.485	mg	5124	2693
				supplier	Moulding Compound	Bismuth (Bi)	7440-69-9		0.145	mg	1537	808
				supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.145	mg	1537	808
Finishing	M-011 Other inorganic materials	0.003	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.002	mg	914840	13
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	29660	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	27750	0
				supplier	connections coating	Silver (Ag)	7440-22-4		0.000	mg	27750	0