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 ***	19-09-2018
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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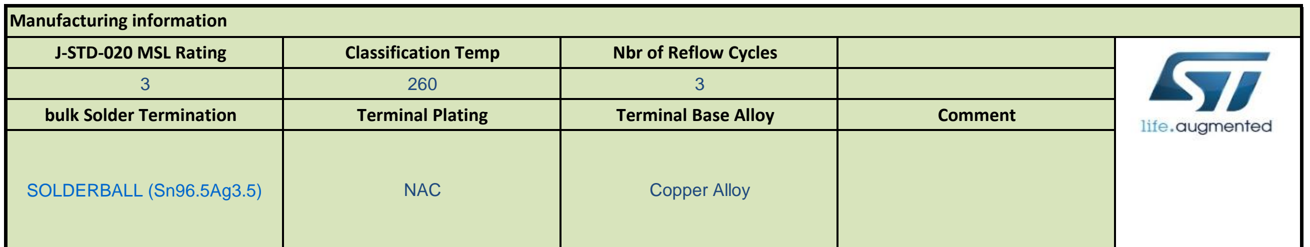
Legal Statement

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**
STM32L486QGI6 STM32L486QGI6TR	P1PG*415XXX4	A	9996	19-09-2018
	Amount	UoM	**Unit type**	**ST ECOPACK Grade**
	68.00	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**	
SOLDERBALL (Sn96.5Ag3.5)	NAC	Copper Alloy		

Package Designator	**Size**	**Nbr of instances**	**Shape**	
BGA	7x7x0.6	132	No lead	
Comment	Package : A0G8 UFBGA 7X7X0.6 132L P 0.5 R 12X12 8298393			

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**	**P1PG*415XXX4**				9999999.0	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	3.516	mg	supplier	die	Silicon (Si)	7440-21-3		2.946	mg	837884	43324
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	7679	397
				supplier	metallization	Copper (Cu)	7440-50-8		0.242	mg	68828	3559
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	284	15
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.078	mg	22184	1147
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	853	44
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	569	29
				supplier	Passivation	Silicon Nitride	12033-89-5		0.061	mg	17349	897
				supplier	Passivation	Silicon Oxide	7631-86-9		0.156	mg	44369	2294
SUBSTRATE (DS7409HGB) Core	M-011 Other inorganic materials	20.090	mg	supplier	CORE	Organic resin	Proprietary		4.621	mg	230000	67951
				supplier	CORE	Other inorganic filler	Proprietary		5.223	mg	260000	76815
				supplier	CORE	Glass fiber	65997-17-3		10.246	mg	510000	150675
SUBSTRATE (DS7409HGB) Cu Foil	M-011 Other inorganic materials	5.660	mg	supplier	CU FOIL	Copper (Cu)	7440-50-8		5.660	mg	1000000	83235
SUBSTRATE (DS7409HGB) Solder Mas	M-011 Other inorganic materials	4.900	mg	supplier	SOLDERMASK	Organic resin	Proprietary		3.185	mg	650000	46838
				supplier	SOLDERMASK	Inorganic filler	Proprietary		1.715	mg	350000	25221
SUBSTRATE (DS7409HGB) Ni	M-011 Other inorganic materials	2.700	mg	supplier	NI PLATING	Nickel (Ni)	7440-02-0		2.700	mg	1000000	39706
SUBSTRATE (DS7409HGB) Au	M-011 Other inorganic materials	0.400	mg	supplier	AU PLATING	Gold (Au)	7440-57-5		0.400	mg	1000000	5882
DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	0.946	mg	supplier	GLUE	Epoxy resin	Proprietary		0.927	mg	979915	13632
				supplier	GLUE	Filler	Proprietary		0.019	mg	20085	279
BONDING WIRE (MKE 4N)	M-011 Other inorganic materials	1.200	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.200	mg	1000000	17647
SOLDERBALL (Sn96.5Ag3.5)	M-011 Other inorganic materials	4.100	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		4.000	mg	975610	58824
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.100	mg	24390	1471
ENCAPSULATION (GE-100LFCS)	M-011 Other inorganic materials	24.488	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		21.588	mg	875446	317471
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		2.900	mg	124554	42647