



## Materials Declaration Form


<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D

*\* : Required Field*

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2019-09-07
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	MDG MD CHAMPION	<b>Representative Title</b>	MDG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

<b>Uncertainty Statement</b>	
<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>	
<b>Legal Statement</b>	
<b>Supplier Acceptance *</b>	true
<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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 comprehensive 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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L011F3U3TR	P4E4*457XXXZ	A	9996	2019-09-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	13.96	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
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3X3X0.6	20	No lead	
Comment	Package : A0A5 UFQFPN 3X3X0.6 20L 0.5 MM PITCH 8177031			

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-15th January 2019				
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 :						Mfr Item Name	P4E4*457XXXZ				7000000.0	999998.0
note : Substance present with less 0.001mg will not be declared in this document												
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	1.722	mg	supplier	die	Silicon (Si)	7440-21-3		1.595	mg	926249	114278
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	6388	788
				supplier	metallization	Copper (Cu)	7440-50-8		0.037	mg	21487	2651
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.004	mg	2323	287
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	3484	430
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	5807	716
LEADFRAME (C7025RuPPF)	Copper and its alloy	9.677	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		9.310	mg	962004	667018
				supplier	ALLOY	Nickel (Ni)	7440-02-0		0.290	mg	29998	20799
				supplier	ALLOY	Silicon (Si)	7440-21-3		0.063	mg	6500	4507
				supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.015	mg	1498	1039
LEADFRAME (C7025RuPPF) Coating	M-011 Other inorganic materials	0.209	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.204	mg	975551	14580
				supplier	COATING	Palladium (Pd)	7440-05-3		0.004	mg	20614	308
				supplier	COATING	Gold (Au)	7440-57-5		0.000	mg	2157	32
				supplier	COATING	Silver (Ag)	7440-22-4		0.000	mg	1678	25
DIE ATTACH (AT8-F125E)	M-011 Other inorganic materials	0.164	mg	supplier	GLUE	Silicon dioxide	7631-86-9		0.098	mg	600000	7029
				supplier	GLUE	Butadiene,acrylonitrile polymer,carboxy-termi	68610-41-3		0.041	mg	250000	2929
				supplier	GLUE	Poly[oxy[(2-oxiranyl)-1,2cyclohexanediy]] <sub>n</sub> -h	244772-00-7		0.008	mg	50000	586
				supplier	GLUE	Phenol-formaldehyde polymer	9003-35-4		0.008	mg	50000	586
				supplier	GLUE	Reaction product:bisphenol-A-(epichlorhydrin	25068-38-6		0.008	mg	50000	586
BONDING WIRE	M-011 Other inorganic materials	0.088	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.088	mg	1000000	6276
ENCAPSULATION (EME G700Y)	M-011 Other inorganic materials	2.018	mg	supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		-0.020	mg	50000	-1415
				supplier	MOLDING COMPOUND	Silica (Amorphous) A	60676-86-0		1.716	mg	800000	122942
				supplier	MOLDING COMPOUND	Silica (Amorphous) B	7631-86-9		0.214	mg	100000	15368
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		0.097	mg	45000	6915
EXTERNAL PLATING	M-011 Other inorganic materials	0.080	mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.011	mg	5000	768
				supplier	COATING	Nickel (Ni)	7440-02-0		0.071	mg	882610	5069
				supplier	COATING	Palladium (Pd)	7440-05-3		0.004	mg	52395	301
				supplier	COATING	Gold (Au)	7440-57-5		0.003	mg	36427	209
				supplier	COATING	Silver (Ag)	7440-22-4		0.002	mg	28568	164