



Materials Declaration Form


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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	30-08-2018
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	<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
STM32F417IET6	Y81T*413XXX4	B	9991	30-08-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	1650.00	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	24x24x1.4	176	L Bend	
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	Y81T*413XXX4				5999997.0	1000001.0
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	13.728	mg	supplier	die	Silicon (Si)	7440-21-3		12.939	mg	942526	7842
				supplier	metallization	Aluminium (Al)	7429-90-5		0.055	mg	4006	33
				supplier	metallization	Copper (Cu)	7440-50-8		0.359	mg	26151	218
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	73	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.050	mg	3642	30
				supplier	metallization	Tungsten (W)	7440-33-7		0.161	mg	11728	98
				supplier	Passivation	Silicon Nitride	12033-89-5		0.042	mg	3059	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.121	mg	8814	73
Encapsulation	M-011 Other inorganic materials	946.000	mg	supplier	Molding Compound	Epoxy Resin A	Proprietary		41.840	mg	44228	25358
				supplier	Molding Compound	Epoxy Resin B	Proprietary		41.840	mg	44228	25358
				supplier	Molding Compound	Phenol Resin	Proprietary		62.760	mg	66342	38036
				supplier	Molding Compound	Carbon Black	1333-86-4		4.184	mg	4423	2536
				supplier	Molding Compound	Silica Fused	60676-86-0		795.376	mg	840778	482046
Leadframe	M-011 Other inorganic materials	666.052	mg	supplier	Alloy	Copper (CU)	7440-50-8		626.402	mg	940470	379638
				supplier	Alloy	Nickel (Ni)	7440-02-0		24.780	mg	37204	15018
				supplier	Alloy	Silicon (Si)	7440-21-3		5.370	mg	8062	3255
				supplier	Alloy	Silver (Ag)	7440-22-4		8.260	mg	12401	5006
				supplier	Alloy	Magnesium (Mg)	7439-95-4		1.240	mg	1862	752
Die Attach	M-011 Other inorganic materials	3.010	mg	supplier	Glue	Silver Flake	7440-22-4		2.330	mg	774086	1412
				supplier	Glue	Epoxy Acylate	15625-89-5		0.150	mg	49834	91
				supplier	Glue	Substituted Polyamine	68490-66-4		0.050	mg	16611	30
				supplier	Glue	Bisphenol F	28064-14-4		0.300	mg	99668	182
Bonding wire	M-011 Other inorganic materials	2.510	mg	supplier	Glue	2-Ethylhexyl glycidyl ether	2461-15-6		0.180	mg	59801	109
				supplier	Bonding wire	Au	7440-57-5		2.480	mg	988048	1503
				supplier	Bonding wire	Pd	7440-05-3		0.030	mg	11952	18
Finishing	M-011 Other inorganic materials	18.700	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		18.700	mg	1000000	11333