



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 *	2019-06-03
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
STM32G484QET6	P1TC*469XXXZ	A	9998	2019-06-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	670.00	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
LQFP	14X14X1.4	137		
Comment	Package : TC LQFP 128 14x14x1.4 1.0 7111275			

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 :						Mfr Item Name	P1TC*469XXXZ				7999999.0	1000000.0
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	15.779	mg	supplier	die	Silicon (Si)	7440-21-3		15.191	mg	962735	22673
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	1775	42
				supplier	metallization	Copper (Cu)	7440-50-8		0.249	mg	15780	372
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	63	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.081	mg	5133	121
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	190	4
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	127	3
				supplier	Passivation	Silicon Nitride	12033-89-5		0.063	mg	3993	94
				supplier	Passivation	Silicon Oxide	7631-86-9		0.161	mg	10203	240
				DIE OR DIES	M-011 Other inorganic materials	15.190	mg	supplier	DIE	Silicon (Si)	7440-21-3	
LEADFRAME (MHT - C194)	Copper and its alloy	142.230	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		138.674	mg	975000	206976
				supplier	ALLOY	Iron (Fe)	7439-89-6		3.342	mg	23500	4989
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.171	mg	1200	255
				supplier	ALLOY	Metallic Phosphorus (P)	7723-14-0		0.043	mg	300	64
LEADFRAME (MHT - Ag Plating)	M-011 Other inorganic materials	1.160	mg	supplier	COATING	Silver(Ag)	7440-22-4		1.160	mg	1000000	1731
DIE ATTACH (Evertech - AP4200)	M-011 Other inorganic materials	2.830	mg	supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-36-5		0.453	mg	1600000	676
				supplier	GLUE	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.042	mg	15000	63
				supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-35-4		0.042	mg	15000	63
				supplier	GLUE	2-butoxyethyl acetate	112-07-2		0.113	mg	40000	169
				supplier	GLUE	Silver	7440-22-4		2.179	mg	770000	3252
BONDING WIRE (MKE - Au HTS 2N)	M-011 Other inorganic materials	2.540	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		2.516	mg	990480	3755
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.024	mg	9500	36
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	20	0
ENCAPSULATION (Sumitomo - G631H)	M-011 Other inorganic materials	484.141	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	Proprietary		9.998	mg	20000	14923
				supplier	MOLDING COMPOUND	Epoxy Resin B	85954-11-6		19.997	mg	40000	29846
				supplier	MOLDING COMPOUND	Silica Amorphous A	60676-86-0		376.658	mg	785000	562177
				supplier	MOLDING COMPOUND	Silica Amorphous B	7631-86-9		42.493	mg	85000	63423
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.500	mg	5000	3731
FINISHING (Sytron - Pure Tin)	M-011 Other inorganic materials	6.130	mg	supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		32.495	mg	65000	48500
				supplier	COATING	Tin (Sn)	7440-31-5		6.130	mg	1000000	9149