



## Materials Declaration Form


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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>18-04-2018</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>	<b>MDG MD CHAMPION</b>	<b>Representative Title</b>	<b>MDG MD CHAMPION</b>
<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>		

Uncertainty Statement	
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Legal Statement	
<b>Supplier Acceptance *</b>	<b>true</b>
<b>Legal Declaration *</b>	<b>Standard</b>
<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
STM32F405RG16 STM32F405RGT6TR	P15W*413XXX2	A	9998	18-04-2018
Amount	UoM	Unit type	ST ECOPACK Grade	
344.69	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	
able; if coating is used or other bulk	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	10x10x1.4	64	L Bend	
Comment	Package : 5W LQFP 64 10x10x1.4 1 0051434			

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 :						Mfr Item Name	P15W*413XXX2				7000001.0	1000001.0
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	12.097	mg	supplier	die	Silicon (Si)	7440-21-3		11.520	mg	952302	33421
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	2315	81
				supplier	metallization	Copper (Cu)	7440-50-8		0.244	mg	20170	708
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	83	3
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.079	mg	6531	229
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	248	9
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	165	6
				supplier	Passivation	Silicon Nitride	12033-89-5		0.062	mg	5125	180
LEADFRAME (MHT- C194)	M-011 Other inorganic materials	84.283	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.158	mg	13061	458
				supplier	ALLOY	Copper (Cu)	7440-50-8		82.134	mg	974503	238284
				supplier	ALLOY	Iron (Fe)	7439-89-6		2.023	mg	24002	5869
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.101	mg	1198	293
LEADFRAME (MHT- Ag)	M-011 Other inorganic materials	1.960	mg	supplier	ALLOY	Phosphorus (P)	7723-14-0		0.025	mg	297	73
				supplier	COATING	Silver(Ag)	7440-22-4		1.960	mg	1000000	5686
DIE ATTACH (Evertech -AP4200)	M-011 Other inorganic materials	0.009	mg	supplier	GLUE	Epoxy	9003-36-5		0.002	mg	222222	6
				supplier	GLUE	Silver(Ag)	7440-22-4		0.007	mg	777778	20
BONDING WIRE (MKE - Au wire)	M-011 Other inorganic materials	1.085	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.084	mg	999078	3145
				supplier	BONDING WIRE	Palladium (Pd)	7440-41-7		0.001	mg	922	3
ENCAPSULATION (Sumitomo -G631H)	M-011 Other inorganic materials	241.764	mg	supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		25.384	mg	105534	73643
				supplier	MOLDING COMPOUND	Silica fused (SiO3)	60676-86-0		201.150	mg	831148	583568
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		13.961	mg	58043	40503
FINISHING - (ST380 -Sn)	M-011 Other inorganic materials	3.492	mg	supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		1.269	mg	5276	3682
				supplier	EXTERNAL PLATING	Tin (Sn)	7440-31-5		3.492	mg	1000000	10131