

## **Materials Declaration Form**

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

Supplier Information								
Company Name *	STMicroelectronics	Response Date *	2017-07-11					
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	MDG MD CHAMPION Representative Title MDG MD CHAMPION						
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section					
Supplier Comment	* * * * * * * * * * * * * * * * * * * *	ine Technical Support - STMicroelectronics : p://www.st.com/web/en/support/support.html						

## **Uncertainty Statement**

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Legal Statemen	it
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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					
STM32F407VGT7 STM32F407VGT7TR	PA1L*413XXXY	А	9998	2017-07-11					
	Amount	UoM	Unit type	ST ECOPACK Grade					
	681.44	mg	Each	ECOPACK® 2					
			OPACK® 2 is STMicroelectronics trade name for ROHS compliant device without minated and Chlorinated compound (900ppm) and without Antimony oxide flame releach organic material)						

Manufacturing information							
J-STD-020 MSL Rating Classification Temp		Nbr of Reflow Cycles					
3	260	3					
bulk Solder Termination	bulk Solder Termination Terminal Plating		Comment	life.augmented			
Not Applicable; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		meradgillerilled			

Package Designator Size		Nbr of instances	Shape	
QFP	14x14x1.4	100	L Bend	
Comment	Package: 1L LQFP 100 14x14x1.4 1 00	86901		

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							
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							
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								
CategoryLevel_Name CategoryLevel_Threshold amount in product (mg) Application								

Material Composition Declarate note: Substance present with	tion: less 0.001mg will not be declared in this o	document				Mfr Item Name	PA1L*4	13XXXY			6000000.0	0.0
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	12.097	mg	supplier	die	Silicon (Si)	7440-21-3		11.520	mg	952302	16905
				supplier	metallization	Aluminium (AI)	7429-90-5		0.028	mg	2315	41
				supplier	metallization	Copper (Cu)	7440-50-8		0.244	mg	20170	358
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	83	1
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.079	mg	6531	116
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	248	4
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	165	3
				supplier	Passivation	Silicon Nitride	12033-89-5		0.062	mg	5125	91
				supplier	Passivation	Silicon Oxide	7631-86-9		0.158	mg	13061	232
LEADFRAME	M-011 Other inorganic materials	132.746	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		127.215	mg	958334	186686
				supplier	ALLOY	Chromium (Cr)	7440-47-3		0.385	mg	2900	565
				supplier	ALLOY	Tin (Sn)	7440-31-5		0.320	mg	2411	470
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.256	mg	1928	376
				supplier	COATING	Nickel (Ni)	7440-02-0		4.431	mg	33380	6502
				supplier	COATING	Palladium (Pd)	7440-05-3		0.094	mg	708	138
				supplier	COATING	Gold (Au)	7440-57-5		0.045	mg	339	66
DIE ATTACH	M-011 Other inorganic materials	1.878	mg	supplier	GLUE	Silver(Ag)	7440-22-4		1.315	mg	700213	1930
				supplier	GLUE	Epoxy resin A	9003-36-5		0.047	mg	25027	69
				supplier	GLUE	Epoxy resin B	Proprietary		0.094	mg	50053	138
				supplier	GLUE	Allyl compound	Proprietary		0.150	mg	79872	220
				supplier	GLUE	Silica	Proprietary		0.141	mg	75080	207
				supplier	GLUE	Diluent	Proprietary		0.131	mg	69755	192
BONDING WIRE	M-011 Other inorganic materials	1.534	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.519	mg	990222	2229
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.015	mg	9778	22
ENCAPSULATION	M-011 Other inorganic materials	532.426	mg	supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		53.599	mg	100669	78655
				supplier	MOLDING COMPOUND	Silica (SiO3)	60676-86-0		446.668	mg	838930	-344522
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.680	mg	5034	3933
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		29.479	mg	55367	43260
FINISHING	M-011 Other inorganic materials	0.759	mg	supplier	CONNECTION COATING	Nickel (Ni)	7440-02-0		0.739	mg	973650	1084
				supplier	CONNECTION COATING	Palladium (Pd)	7440-05-3		0.016	mg	21080	23
				supplier	CONNECTION COATING	Gold (Au)	7440-57-5		0.004	mg	5270	6