



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 *	18-01-2018
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		


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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
STM32F048G6U6	72MB*445XXXA	A	998Z	18-01-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	24.09	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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4X4X0.55	28	No lead	
Comment	Package : A0B0 UFQFPN 4X4X0.55 28L PITCH0.5 COL 8202209			

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	72MB*445XXXA				5000000.0	999959.0
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	2.026	mg	supplier	die	Silicon (Si)	7440-21-3		1.807	mg	891905	75021
				supplier	metallization	Aluminium (Al)	7429-90-5		0.015	mg	7404	623
				supplier	metallization	Copper (Cu)	7440-50-8		0.074	mg	36525	3072
				supplier	metallization	Cobalt (Co)	7440-48-4		0.014	mg	6910	581
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1974	166
				supplier	metallization	Tungsten (W)	7440-33-7		0.008	mg	3949	332
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	4936	415
				supplier	Passivation	Silicon Oxide	7631-86-9		0.094	mg	46397	3903
				supplier	Metals	Silver	7440-22-4		0.097	mg	704535	4013
Die Attach Epoxy_ABLEBOND 8066NS	M-011 Other inorganic materials	0.137	mg	supplier	Plastics/polymers	Bisphenol-F, epoxy resin	9003-36-5		0.007	mg	48437	276
				supplier	Plastics/polymers	Fatty acids, polymers with epichlorohydrin	68475-94-5		0.007	mg	48437	276
				supplier	Organic Compounds	Gamma Butyrolactone	96-48-0		0.007	mg	48437	276
				supplier	Plastics/polymers	Epoxy Resin	Proprietary		0.007	mg	48437	276
				supplier	Amines	Poly(Oxy(methyl-1, 2-ethanediyl))	9046-10-0		0.007	mg	48437	276
				supplier	Metallic compounds	Copper Oxide	1317-38-0		0.007	mg	48437	276
				supplier	Organic Compounds	1,4-Bis(2,3-epoxypropoxy) butane	2425-79-8		0.001	mg	4844	28
				supplier	Plastics/polymers	Epoxy Resin	Proprietary		0.319	mg	29542	13231
Molding compound G770HCD_Sumitomo	M-011 Other inorganic materials	10.788	mg	supplier	Plastics/polymers	Phenol Resin	Proprietary		0.319	mg	29542	13231
				supplier	Glass	Silica (Amorphous) A	60676-86-0		8.499	mg	787789	352839
				supplier	Glass	Silica (Amorphous) B	7631-86-9		1.594	mg	147710	66157
				supplier	Additives	Carbon Black	1333-86-4		0.058	mg	5416	2426
				supplier	Metals	Gold	7440-57-5		0.190	mg	999420	7903
Wire_Au_MKE	M-011 Other inorganic materials	0.190	mg	supplier	Metals	Palladium	7440-05-3		0.000	mg	520	4
				supplier	Metals	Lanthanum	7439-91-0		0.000	mg	20	0
				supplier	Metals	Calcium	7440-70-2		0.000	mg	40	0
Leadframe C7+PPF_HDS	M-011 Other inorganic materials	10.944	mg	supplier	Metals	Nickel	7440-02-0		0.485	mg	44305	20130
				supplier	Glass	Silicon	7440-21-3		0.078	mg	7125	3237
				supplier	Metals	Magnesium	7439-95-4		0.019	mg	1720	781
				supplier	Metals	Gold	7440-57-5		0.003	mg	295	134
				supplier	Metals	Copper	7440-50-8		10.354	mg	946065	429853
				supplier	Metals	Palladium	7440-05-3		0.005	mg	490	223