



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 *	15-03-2018
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
STM32F777ZIT6	P21A*451XXXZ	A	9998	15-03-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	1315.000	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	
LQFP	20x20x1.4	144		
Comment	Package : 1A LQFP 144 20X20X1.4 2 0099183			

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	P21A*451XXXZ				7000000.0	1000000.0				
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	31.426	mg	supplier	die	Silicon (Si)	7440-21-3		29.844	mg	949660	22695				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.111	mg	3532	84				
				supplier	metallization	Copper (Cu)	7440-50-8		0.719	mg	22879	547				
				supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	64	2				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.100	mg	3182	76				
				supplier	metallization	Tungsten (W)	7440-33-7		0.323	mg	10278	246				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.084	mg	2673	64				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.243	mg	7732	185				
				LEADFRAME (MHT- C194)	Copper and its alloy	246.909	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		240.736	mg	975000	183069
								supplier	ALLOY	Iron (Fe)	7439-89-6		5.802	mg	23500	4412
supplier	ALLOY	Zinc (Zn)	7440-66-6						0.296	mg	1200	225				
supplier	ALLOY	Metallic Phosphorus (P)	7723-14-0						0.074	mg	300	56				
LEADFRAME (MHT - Ag Plating)	M-011 Other inorganic materials	1.640	mg	supplier	COATING	Silver(Ag)	7440-22-4		1.640	mg	1000000	1247				
DIE ATTACH (Evertch - AP4200)	M-011 Other inorganic materials	4.398	mg	supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-36-5		0.704	mg	160000	535				
				supplier	GLUE	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.066	mg	15000	50				
				supplier	GLUE	Formaldehyde, oligomeric reaction products w	9003-35-4		0.066	mg	15000	50				
				supplier	GLUE	2-butoxyethyl acetate	112-07-2		0.176	mg	40000	134				
BONDING WIRE (Hesung - Au HTS)	M-011 Other inorganic materials	2.654	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		2.628	mg	990050	1998				
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.026	mg	9900	20				
				supplier	BONDING WIRE	Calcium (Ca)	7440-70-2		0.000	mg	50	0				
ENCAPSULATION (Sumitomo - G631H)	M-011 Other inorganic materials	1020.115	mg	supplier	MOLDING COMPOUND	Epoxy Resin A	Trade Secret		20.434	mg	20000	15539				
				supplier	MOLDING COMPOUND	Epoxy Resin B	85954-11-6		40.868	mg	40000	31078				
				supplier	MOLDING COMPOUND	Silica Amorphous A	60676-86-0		800.450	mg	785000	608706				
				supplier	MOLDING COMPOUND	Silica Amorphous B	7631-86-9		86.844	mg	85000	66041				
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		5.108	mg	5000	3885				
FINISHING (Sytron - Pure Tin)	M-011 Other inorganic materials	7.858	mg	supplier	MOLDING COMPOUND	Phenol Resin	Trade Secret		66.410	mg	65000	50502				
				supplier	COATING	Tin (Sn)	7440-31-5		7.858	mg	1000000	5976				