



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 *	14-02-2018
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

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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F417IGH6W	P8MR*413XXXY	A	9996	14-02-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	110.10	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	
SOLDERBALL (Sn96.5Ag3.5)	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	10,10,0.6	201	No lead	
Comment	Package : A0E7 UFBGA 10X10X0.6 176+25 P0.65 8249558			

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	P8MR*413XXXY				5999999.0	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	3.556	mg	supplier	die	Silicon (Si)	7440-21-3		2.979	mg	837739	27057
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	7874	254
				supplier	metallization	Copper (Cu)	7440-50-8		0.244	mg	68616	2216
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	281	9
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.079	mg	22216	718
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	844	27
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	562	18
				supplier	Passivation	Silicon Nitride	12033-89-5		0.062	mg	17435	563
				supplier	Passivation	Silicon Oxide	7631-86-9		0.158	mg	44432	1435
				supplier	CORE	Glass Cloth	65997-17-3		2.114	mg	57700	19201
SUBSTRATE (DS7409HGB)	M-011 Other inorganic materials	36.638	mg	supplier	CORE	Epoxy resin	61788-97-4		0.381	mg	10400	3461
				supplier	CORE	Flame resistant epoxy resin	223769-10-6		0.337	mg	9200	3061
				supplier	CORE	Heat resistant resin	25722-66-1		0.337	mg	9200	3061
				supplier	CORE	Silica filler	7631-86-9		0.802	mg	21900	7288
				supplier	CORE	Metal Hydroxide	Proprietary		0.634	mg	17300	5757
				supplier	CORE	Copper foil	7440-50-8		3.847	mg	105000	34941
				supplier	SOLDERMASK (AUS308)	Talc containing no asbestiform fibers	14807-96-6		0.300	mg	8200	2729
				supplier	SOLDERMASK (AUS308)	Barium sulfate	7727-43-7		5.027	mg	137200	45656
				supplier	SOLDERMASK (AUS308)	Dipropylene glycol monomethyl ether	34590-94-8		2.026	mg	55300	18402
				supplier	SOLDERMASK (AUS308)	Napthalene	91-20-3		0.769	mg	21000	6988
				supplier	SOLDERMASK (AUS308)	Morpholine derivative	Proprietary		0.843	mg	23000	7653
				supplier	CU PLATING	Copper (Cu)	7440-50-8		13.036	mg	355800	118399
				supplier	NI PLATING	Nickel (Ni)	7440-02-0		5.400	mg	147400	49050
				supplier	AU PLATING	Gold (Au)	7440-57-5		0.784	mg	21400	7121
DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	0.432	mg	supplier	GLUE	Butadiene,acrylonitrile polymer,carboxy-termi	68610-41-3		0.302	mg	700000	2744
				supplier	GLUE	Phenol-formaldehyde polymer	9003-35-4		0.043	mg	100000	392
				supplier	GLUE	Phenol polymer with formaldehyde,glycidyl et	28064-14-4		0.040	mg	92000	361
				supplier	GLUE	Dapsone	80-08-0		0.042	mg	97000	380
				supplier	GLUE	Reaction product bisphenol-A-(epichlorhydrin	25068-38-6		0.004	mg	10000	39
				supplier	GLUE	4,4, Isopropylidenediphenol	80-05-7		0.000	mg	1000	4
BONDING WIRE (MKE 4N)	M-011 Other inorganic materials	2.847	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		2.847	mg	1000000	25857
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.218	mg	35000	1984
SOLDERBALL (Sn96.5Ag3.5)	M-011 Other inorganic materials	6.241	mg	supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		54.290	mg	900000	493099
				supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		2.743	mg	45000	24917
				supplier	MOLDING COMPOUND	Phenol resin	Proprietary		2.439	mg	40000	22148
				supplier	MOLDING COMPOUND	Metal Hydroxide	Proprietary		0.610	mg	10000	5537
				supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.305	mg	5000	2769