



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 *	2019-04-06
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
STM32L152V8H6A	P4MJ*429XXXY	A	9996	2019-04-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	51.34	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	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
BGA	7x7	102	No lead	
Comment	Package : A0C2 UFBGA 7x7x0.60 100L R12sq P0.5 8219030			

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-15th January 2019				
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	P4MJ*429XXY				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	2.178	mg	supplier	die	Silicon (Si)	7440-21-3		1.878	mg	862259	36578				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.026	mg	11938	506				
				supplier	metallization	Copper (Cu)	7440-50-8		0.087	mg	39945	1694				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.010	mg	4591	195				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	5969	253				
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	459	19				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.023	mg	10560	448				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.140	mg	64279	2727				
				DIE OR DIES	M-011 Other inorganic materials	1.920	mg	supplier	DIE	Silicon (Si)	7440-21-3		1.920	mg	1000000	37396
				SUBSTRATE (DS7409HGB)	M-011 Other inorganic materials	15.840	mg	supplier	CORE	GLASS Cloth	65997-17-3		1.176	mg	74242	22905
supplier	CORE	Copper (Cu)	7440-50-8						2.940	mg	185606	57262				
supplier	CORE	Epoxy	28906-96-9						0.412	mg	25985	8017				
supplier	CORE	Flame resistant resin	223769-10-6						0.294	mg	18561	5726				
supplier	CORE	Heat resistant resin	25722-66-1						0.294	mg	18561	5726				
supplier	CORE	Silica filler	7631-86-9						0.529	mg	33409	10307				
supplier	CORE	Metal Hydroxide	Proprietary						0.235	mg	14848	4581				
supplier	SOLDERMASK (AUS308)	Morpholine Derivative	Proprietary						0.185	mg	11702	3610				
supplier	SOLDERMASK (AUS308)	Barium sulfate	7727-43-7						1.484	mg	93671	28899				
supplier	SOLDERMASK (AUS308)	Talc containing no asbestiform fibers	14807-96-6						0.556	mg	35125	10836				
supplier	SOLDERMASK (AUS308)	Dipropylene glycol monomethyl ether	34590-94-8						0.371	mg	23422	7226				
supplier	SOLDERMASK (AUS308)	Naphthalene	91-20-3						0.133	mg	8428	2600				
supplier	CU FOIL	Copper (Cu)	7440-50-8						6.340	mg	400253	123483				
supplier	NI PLATING	Nickel (Ni)	7440-02-0						0.731	mg	46174	14245				
supplier	AU PLATING	Gold (Au)	7440-57-5						0.159	mg	10013	3089				
DIE ATTACH (ATB-130U)	M-011 Other inorganic materials	0.390	mg	supplier	GLUE	Modified Epoxy Resin	68610-41-3		0.234	mg	600000	4558				
				supplier	GLUE	Phenol-formaldehyde polymer	9003-35-4		0.039	mg	100000	760				
				supplier	GLUE	Phenol polymer with formaldehyde, glycidyl e	28064-14-4		0.039	mg	100000	760				
				supplier	GLUE	Aromatic polyamine	80-08-0		0.039	mg	100000	760				
				supplier	GLUE	Reaction product bisphenol-A-(epichlorhydrin	25068-38-6		0.004	mg	10000	76				
				supplier	GLUE	4,4, Isopropylidenediphenol	80-05-7		0.004	mg	10000	76				
				supplier	GLUE	Others	Proprietary		0.031	mg	80000	608				
BONDING WIRE (Au HP)	M-011 Other inorganic materials	0.520	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.520	mg	1000000	10128				
SOLDERBALL (Sn3.5Ag)	M-011 Other inorganic materials	3.110	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		3.001	mg	965000	58453				
				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.109	mg	35000	2120				
ENCAPSULATION (GE-100LFC5)	M-011 Other inorganic materials	27.385	mg	supplier	MOLDING COMPOUND	Solid Epoxy Resin	Proprietary		1.626	mg	55000	31669				
				supplier	MOLDING COMPOUND	Hardener	Proprietary		0.887	mg	30000	17274				
				supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.148	mg	5000	2879				
				supplier	MOLDING COMPOUND	Metal Hydroxide	Proprietary		0.296	mg	10000	5758				
				supplier	MOLDING COMPOUND	Amorphous silica	60676-86-0		24.429	mg	900000	475795				