



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-07-19
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**Uncertainty Statement**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	CCAQ*U1G2AC5	A	CA2A	2018-07-19
	Amount	UoM	Unit type	ST ECOPACK Grade
	23	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.9	12	flat	
Comment	A0L0 VFDFPN 12L 3X3X0.9 PITCH 0,45; MDF valid for STPRDC01TR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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-27th June 2018				
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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg. will not be declared in this document						Mr Item Name	CCAQ*U1G2ACS				5000000.0	1000038.0
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	1.698	mg	supplier	die	Silicon (Si)	7440-21-3		1.609	mg	947585	69957
				supplier	metallization	Aluminium (Al)	7429-90-5		0.017	mg	10012	739
				supplier	metallization	Tungsten (W)	7440-33-7		0.013	mg	7656	565
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2356	174
				supplier	Passivation	Silicon Oxide	7631-86-9		0.028	mg	16490	1217
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	589	43
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1767	130
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.006	mg	3534	261
				supplier	polymer die coating	PIXL Gamma-butyrolactone	96-48-0		0.017	mg	10012	739
				Leadframe	M-004 Copper and its alloys	5.806	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.133	mg	22907	5783
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.008	mg	1378	348
supplier	alloy	Zinc (Zn)	7440-66-6						0.007	mg	1206	304
supplier	metallization	Nickel (Ni)	7440-02-0						0.021	mg	3617	913
supplier	metallization	Palladium (Pd)	7440-05-3						0.001	mg	172	43
supplier	metallization	Gold (Au)	7440-57-5						0.001	mg	172	43
supplier	glue	Silver (Ag)	7440-22-4						0.466	mg	799314	20261
Die attach	M-015 Other organic materials	0.583	mg	supplier	glue	methylenedioxybisphenol A	42594-17-2		0.095	mg	162950	4130
				supplier	glue	Dicyclopentenyl(oxethyl methacrylate	68586-19-6		0.015	mg	25729	652
				supplier	glue	Epoxycyclohexylethytrimethoxysilane	3388-04-3		0.003	mg	5146	130
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.003	mg	5146	130
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	1715	43
				supplier	wire	Gold (Au)	7440-57-5		0.260	mg	988593	11304
Bonding wires	M-008 Precious metals	0.263	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	11407	130
				supplier	silica vitreous	silica vitreous	60676-86-0		12.497	mg	852979	543348
				supplier	mold compound	epoxy resin	29690-82-2		0.586	mg	39997	25478
Encapsulation	M-011 Other inorganic materials	14.651	mg	supplier	mold compound	Phenol resin	25068-38-6		0.513	mg	35015	22304
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.586	mg	39997	25478
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.293	mg	19999	12739
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.147	mg	10033	6391
				supplier	mold compound	carbon black	1333-86-4		0.029	mg	1979	1261