



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 *	2016-07-15
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG MD CHAMPION
Representative Phone *	Refer to Supplier Comment section		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
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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
	88AQ*U1G2ABA	A	CA2A	2016-07-15
Amount	UoM	Unit type	ST ECOPACK Grade	
23.00	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.9	12	No lead	
Comment	Package: A0LQ VFDFPN 12L 3X3X0.9 PITCH 0,45; MDF valid for STRG02TR			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-20th June 2016				
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	88AQ*U1G2ABA					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	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	PIX1 Gamma-butyrolactone	96-48-0		0.017	mg	10012	739
				Leadframe	Copper & its alloys	5.854	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.003	mg	512	130
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.005	mg	854	217
supplier	metallization	Nickel (Ni)	7440-02-0						0.021	mg	3587	913
supplier	metallization	Palladium (Pd)	7440-05-3						0.001	mg	171	43
supplier	metallization	Gold (Au)	7440-57-5						0.001	mg	171	43
Die attach	Other Organic Materials	0.584	mg	supplier	glue	Silver (Ag)	7440-22-4		0.466	mg	797945	20261
				supplier	glue	methylene diacrylate	42594-17-2		0.078	mg	133562	3391
				supplier	glue	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.015	mg	25685	652
				supplier	glue	Polybutadiene Anhydride	Proprietary		0.018	mg	30822	783
				supplier	glue	Epoxydicyclohexylethyltrimethoxysilane	3388-04-3		0.003	mg	5137	130
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.003	mg	5137	130
				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	1712	43
				supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	11407	130
Bonding wires	Precious metals	0.263	mg	supplier	wire	Gold (Au)	7440-57-5		0.260	mg	988593	11304
				supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	11407	130
Encapsulation	Other Organic Materials	14.601	mg	supplier	mold compound	silica vitreous	60676-86-0		12.455	mg	853024	541522
				supplier	mold compound	epoxy resin	Proprietary		0.584	mg	39997	25391
				supplier	mold compound	Phenol resin	Proprietary		0.511	mg	34998	22217
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.584	mg	39997	25391
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.292	mg	19999	12696
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.146	mg	9999	6348
				supplier	mold compound	carbon black	1333-86-4		0.029	mg	1986	1261