



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-12-21
Company Unique ID	NL 008751171801		
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 *	Giovanni Giacopello	Representative Title	ADG 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
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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
L99LD20Q6TR	BOVV*UAR7BDA	A	Z7GA	2017-12-21
Amount	UoM	Unit type	ST ECOPACK Grade	
106	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
QFN	6x6x10	40	flat
Comment	Package: VFQFPN 6X6X1.0 40L PITCH 0.50		

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 : California Prop65 list, dated 7th July 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.07	Die	679

QueryList : REACH-7th July 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	BOVV*UAR7BDA					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	10.280	mg	supplier	die	Silicon (Si)	7440-21-3		9.383	mg	912743	88519
				supplier	metallization	Aluminium (Al)	7429-90-5		0.022	mg	2140	208
				supplier	metallization	Copper (Cu)	7440-50-8		0.581	mg	56518	5481
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	97	9
				supplier	passivation	Nickel (Ni)	7440-02-0		0.072	mg	7004	679
				supplier	metallization	Platinum (Pt)	7440-06-4		0.040	mg	3891	377
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	389	38
				supplier	metallization	Tungsten (W)	7440-33-7		0.033	mg	3210	311
				supplier	Passivation	Silicon Oxide	7631-86-9		0.144	mg	14008	1358
				Leadframe	M-004 Copper and its alloys	40.870	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Chromium (Cr)	7440-47-3						0.108	mg	2643	1019
supplier	alloy	Tin (Sn)	7440-31-5						0.100	mg	2447	943
supplier	alloy	Zinc (Zn)	7440-66-6						0.080	mg	1957	755
supplier	metallization	Silver (Ag)	7440-22-4						0.817	mg	19990	7708
Die attach	M-011 Other inorganic materials	2.291	mg	supplier	glue	Silver (Ag)	7440-22-4		1.868	mg	815365	17624
				supplier	glue	(Octahydro-4,7-methano-1 H-indenediyl)bis(m	42594-17-2		0.137	mg	59799	1292
				supplier	glue	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl met	7534-94-3		0.137	mg	59799	1292
				supplier	glue	Isobornyl acrylate	5888-33-5		0.137	mg	59799	1292
				supplier	glue	Bis(alpha,alpha-Dimethylbenzyl) peroxide	80-43-3		0.012	mg	5238	113
Bonding wires	M-011 Other inorganic materials	0.791	mg	supplier	wire	Copper (Cu)	7440-50-8		0.791	mg	1000000	7462
Encapsulation	M-011 Other inorganic materials	48.632	mg	supplier	mold compound	Silica fused	60676-86-0		44.012	mg	905001	415208
				supplier	mold compound	Epoxy resin	25068-38-6		2.286	mg	47006	21566
				supplier	mold compound	Phenol resin	29690-82-2		2.286	mg	47006	21566
connections coating	Solder	3.136	mg	supplier	mold compound	Carbon black	1333-86-4		0.048	mg	987	453
				supplier	solder	Tin (Sn)	7440-31-5		3.136	mg	1000000	29585