



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-06-19
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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
	MQBB*UBC3BA5	A	Z6HA	2018-06-19
Amount	UoM	Unit type	ST ECOPACK Grade	
1.94	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	1.0x1.0x0.38	4	flat	
Comment	A0TH VFDFPN 1.0X1.0X0.38 4L PITCH 0,6; MDF valid for LD59030DTPU28R			

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 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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MQB8*UBC3BA5				5000002.0	1063419.0	
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Die	Other inorganic materials	0.076	mg	supplier	die	Silicon (Si)	7440-21-3		0.069	mg	907895	35567	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	26316	1031	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	13158	13158	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	52632	52632	
Leadframe	Copper and its alloy	0.538	mg	supplier	Alloy	Silicon	7440-21-3		0.006	mg	11330	3144	
				supplier	Alloy	Magnesium	7439-95-4		0.001	mg	2600	722	
	M-006 Nickel and its alloys				supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	38819	10773
					supplier	metallization	Gold (Au)	7440-57-5		0.000	mg	371	103
	M-008 Precious metals				supplier	metallization	Silver (Ag)	7440-22-4		0.000	mg	186	52
					supplier	metallization	Palladium (Pd)	7440-05-3		0.000	mg	557	155
				supplier	Alloy	Copper (Cu)	7440-50-8		0.509	mg	946137	262577	
Die attach	Other organic materials	0.010	mg	supplier	glue	Silver (Ag)	7440-22-4		0.009	mg	930000	4794	
				supplier	glue	CP formaldehyde & aniline, maleated	Proprietary		0.001	mg	50000	258	
				supplier	glue	Modified Epoxy Resin	Proprietary		0.000	mg	10000	52	
				supplier	glue	Epoxy resin	29690-82-2		0.000	mg	10000	52	
Bonding wire	Other inorganic materials	0.020	mg	supplier	Bonding Wire	Gold (Au)	7440-57-5		0.020	mg	1000000	10309	
Encapsulation	Other organic materials	1.296	mg	supplier	molding compound	Epoxy resin	29690-82-2		0.039	mg	30093	20103	
				supplier	molding compound	Phenol resin	25068-38-6		0.039	mg	30093	20103	
				supplier	molding compound	Silica (Amorphous) A	60676-86-0		1.040	mg	802469	536082	
				supplier	molding compound	Silica (Amorphous) B	7631-86-9		0.175	mg	135031	90206	
				supplier	molding compound	Carbon Black	1333-86-4		0.003	mg	2315	1546	