



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 *	2018-03-12
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
	1YNB*VA46BCJ	A	Z6HA	2018-03-12
Amount	UoM	Unit type	ST ECOPACK Grade	
8.07	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	2x2x0.6	8	flat	
Comment	NB UFSON 2x2x0.6 8 PITCH 0.5; MDF valdi for TSZ1821Q2T			

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	1YNB*VA468CJ				5000000.0	999999.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	0.346	mg	supplier	die	Silicon (Si)	7440-21-3		0.319	mg	921965	39529
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	14451	620
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2890	124
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	2890	124
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	5780	248
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	28902	1239
Leadframe	M-004 Copper and its alloys	3.072	mg	supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.008	mg	23121	991
				supplier	Alloy	Silicon (Si)	7440-21-3		0.035	mg	11393	4337
				supplier	Alloy	Magnesium (Mg)	7439-95-4		0.008	mg	2604	991
				supplier	Alloy	Nickel (Ni)	7440-02-0		0.119	mg	38737	14746
				supplier	Alloy	Gold (Au)	7440-57-5		0.001	mg	326	124
				supplier	Alloy	Silver (Ag)	7440-22-4		0.001	mg	326	124
Die Attach	M-015 Other organic materials	0.104	mg	supplier	Alloy	Palladium (Pd)	7440-05-3		0.002	mg	651	248
				supplier	Alloy	Copper (Cu)	7440-50-8		2.906	mg	945964	360099
				supplier	glue	Silver (Ag)	7440-22-4		0.091	mg	875000	11276
				supplier	glue	2-Propionic acid, methyl ester reaction product	Proprietary		0.010	mg	96154	1239
				supplier	glue	2-Propenoic acid, 2-methyl-, 2-[(2,3,3a,4,7,7a)	68586-19-6		0.003	mg	28846	372
				supplier	wire	Gold (Au)	7440-50-8		0.073	mg	1000000	9046
Bonding wires	M-008 Precious metals	0.073	mg	supplier	molding compound	Epoxy resin	29690-82-2		0.045	mg	10056	5576
				supplier	molding compound	Phenol resin	25068-38-6		0.045	mg	10056	5576
				supplier	molding compound	Silica (Amorphous) A	60676-86-0		3.770	mg	842458	467162
				supplier	molding compound	Silica (Amorphous) B	7631-86-9		0.604	mg	134972	74845
Encapsulation	M-015 Other organic materials	4.475	mg	supplier	molding compound	Carbon Black	1333-86-4		0.011	mg	2458	1363