



## 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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-05-29
<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**


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
	ABB3*Q962ARL	A	ZW1A	2018-05-29
Amount	UoM	Unit type	ST ECOPACK Grade	
23	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	Nicel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.65	8	flat	
Comment	B3 UFQFPN 3x3x0.65 8 PITCH 0.65; MDF valid for TS4962IQT			

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	ABB3*Q96ZARL			5000001.0	1000002.0		
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	1.467	mg	supplier	die	Silicon (Si)	7440-21-3		1.400	mg	954329	60870	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	12270	783	
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	1363	87	
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	682	43	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	3408	217	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.041	mg	27948	1783	
Leadframe	M-004 Copper and its alloys	12.051	mg	supplier	alloy	Copper (Cu)	7440-50-8		11.261	mg	934445	489609	
				supplier	alloy	Iron (Fe)	7439-89-6		0.351	mg	29126	15261	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.076	mg	6307	3304	
				supplier	alloy	Phosphorus (P)	7723-14-0		0.018	mg	1494	783	
				supplier	coating	Nickel (Ni)	7440-02-0		0.333	mg	27633	14478	
	M-006 Nickel and its alloys	supplier	coating	Palladium (Pd)	7440-05-3		0.008	mg	664	348			
	M-008 Precious metals	supplier	coating	Gold (Au)	7440-57-5		0.004	mg	332	174			
	Die Attach	M-015 Other organic materials	0.198	mg	supplier	glue	Amorphous silica	60676-86-0		0.148	mg	747475	6435
					supplier	glue	Specific epoxy resin	Proprietary		0.014	mg	70707	609
					supplier	glue	Bisphenol A liquid epoxy	25068-38-6		0.032	mg	161616	1391
supplier					glue	Additives	Proprietary		0.003	mg	15152	130	
supplier					glue	Hardener	Proprietary		0.001	mg	5051	43	
Bonding wires	M-008 Precious metals	0.124	mg	supplier	wire	Gold (Au)	7440-57-5		0.124	mg	1000000	5391	
Encapsulation	M-015 Other organic materials	9.160	mg	supplier	molding compouond	Silica (SiO2)	60676-86-0		8.428	mg	920087	366435	
				supplier	molding compouond	Epoxy Resin 1	29690-82-2		0.183	mg	19978	7957	
				supplier	molding compouond	Epoxy Resin 2	Proprietary		0.119	mg	12991	5174	
				supplier	molding compouond	Hardener	Proprietary		0.183	mg	19978	7957	
				supplier	molding compouond	Metal hydroxide	Proprietary		0.229	mg	25000	9957	
supplier	molding compouond	Carbon black	1333-86-4		0.018	mg	1965	783					