



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-01-12
<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**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	YM42*V862BBG	A	Z6HA	2018-01-12
Amount	UoM	Unit type	ST ECOPACK Grade	
69	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		
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5x5x1	32	flat	
Comment	Package: 42 VFQFPN 5X5x1.0 32L PITCH 0.5; MDF valid for STPM33TR			

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-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	YM42*V862BBG				4999999.0	999982.0	
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	3.016	mg	supplier	die	Silicon (Si)	7440-21-3		2.910	mg	964854	42174	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	2984	130	
				supplier	metallization	Copper (Cu)	7440-50-8		0.037	mg	12268	536	
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.009	mg	2984	130	
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1326	58	
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	332	14	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	3647	159	
				supplier	Passivation	Zinc Oxide	7631-86-9		0.035	mg	11605	507	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.026	mg	921	377	
				supplier	alloy	Copper (Cu)	7440-50-8		27.091	mg	959279	392623	
Leadframe	M-004 Copper and its alloys	28.241	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.635	mg	22485	9203	
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.036	mg	1275	522	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.423	mg	14978	6130	
				supplier	metallization	Gold (Au)	7440-57-5		0.009	mg	319	130	
	M-006 Nickel and its alloys	supplier	metallization	Silver (Ag)	7440-22-4		0.008	mg	283	116			
		supplier	metallization	Palladium (Pd)	7440-05-3		0.013	mg	460	188			
	M-008 Precious metals				supplier	metallization	Silver (Ag)	7440-22-4		0.360	mg	801782	5217
					supplier	glue	Carbocyclic Acrylates	proprietary		0.045	mg	100223	652
	Die attach	M-015 Other organic materials	0.449	mg	supplier	glue	Bismaleimide	35325-39-4		0.014	mg	31180	203
					supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.014	mg	31180	203
supplier					glue	Additive	proprietary		0.014	mg	31180	203	
supplier					glue	Dicumyl peroxide	80-43-3		0.002	mg	4454	29	
supplier					wire	Copper (Cu)	7440-50-8		0.204	mg	1000000	2957	
Bonding wires	M-011 Other inorganic materials	0.204	mg	supplier	wire	Copper (Cu)	7440-50-8		0.204	mg	1000000	2957	
				supplier	mold compound	Silica Fused	60676-86-0		34.752	mg	936989	503652	
				supplier	mold compound	Epoxy Resin	25068-38-6		1.113	mg	30009	16130	
				supplier	mold compound	Phenol Resin	29690-82-2		1.113	mg	30009	16130	
Encapsulation	M-015 Other organic materials	37.089	mg	supplier	mold compound	Carbon Black	1333-86-4		0.111	mg	2993	1609	
				supplier	mold compound	Carbon Black	1333-86-4		0.111	mg	2993	1609	