



Materials Declaration Form


IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	29-10-2018
Company Unique ID	NL 008751171B01		
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 *	MDG MD CHAMPION	Representative Title	MDG 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	
<p>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.</p>	
Legal Statement	
Supplier Acceptance *	true
Legal Declaration *	Standard
Legal Statement	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM8S103F3P3 STM8S103F3P3TR	C2YA*767VVV7	A	3068	29-10-2018
	Amount	UoM	Unit type	ST ECOPACK Grade
	72.00	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; if coating is used or other bulk termination	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
NAC	6.5x4.4x1	20		
Comment	Package : YA TSSOP 20 BODY 4.4 PITCH 0.65 0087225			

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-27th June 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	C2YA*767VVV7				6000000.0	1000003.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	2.005	mg	supplier	die	Silicon (Si)	7440-21-3		1.923	mg	959102	26708
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	3491	97
				supplier	metallization	Copper (Cu)	7440-50-8		0.024	mg	11970	333
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.003	mg	1496	42
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	1995	56
				supplier	Passivation	Silicon Nitride	12033-89-5		0.006	mg	2993	83
				supplier	Passivation	Silicon Oxide	7631-86-9		0.038	mg	18953	528
LEADFRAME	M-011 Other inorganic materials	36.431	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		34.408	mg	944470	477889
				supplier	ALLOY	Nickel (Ni)	7440-02-0		1.073	mg	29453	14903
				supplier	ALLOY	Silicon (Si)	7440-21-3		0.232	mg	6368	3222
				supplier	ALLOY	Magnesium (Mg)	7439-95-4		0.054	mg	1482	750
				supplier	COATING	Nickel (Ni)	7440-02-0		0.647	mg	17760	8986
				supplier	COATING	Palladium (Pd)	7440-05-3		0.014	mg	384	194
				supplier	COATING	Gold (Au)	7440-57-5		0.003	mg	82	42
DIE ATTACH	M-011 Other inorganic materials	0.848	mg	supplier	GLUE	Silver (Ag)	7440-22-4		0.745	mg	878000	10341
				supplier	GLUE	Isobornyl Methacrylate	7534-94-3		0.042	mg	50000	589
				supplier	GLUE	Urethane Methacrylate Resin	5888-33-5		0.042	mg	50000	589
				supplier	GLUE	Acrylate polymer	87320-05-6		0.017	mg	20000	236
				supplier	GLUE	Epoxyoctahydroxyethyltrimethoxysilane	3388-04-3		0.001	mg	1000	12
				supplier	GLUE	tert-Butyl peroxy(2-ethyl)-hexanoate	3006-82-4		0.001	mg	1000	12
BONDING WIRE	M-011 Other inorganic materials	0.270	mg	supplier	BONDING WIRE	Silver (Ag)	7440-22-4		0.261	mg	965000	3619
				supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.001	mg	5000	19
				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.008	mg	30000	113
ENCAPSULATION	M-011 Other inorganic materials	32.175	mg	supplier	MOLDING COMPOUND	Silica, vitreous	60676-86-0		27.952	mg	868745	388221
				supplier	MOLDING COMPOUND	Epoxy Resin	Proprietary		2.364	mg	73464	32829
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		1.576	mg	48976	21886
				supplier	MOLDING COMPOUND	Carbon black	1333-86-4		0.158	mg	4898	2189
FINISHING	M-011 Other inorganic materials	0.271	mg	supplier	MOLDING COMPOUND	Bismuth compound	7440-69-9		0.126	mg	3918	1751
				supplier	CONNECTION COATING	Nickel (Ni)	7440-02-0		0.264	mg	974170	3667
				supplier	CONNECTION COATING	Palladium (Pd)	7440-05-3		0.006	mg	22140	83
				supplier	CONNECTION COATING	Gold (Au)	7440-57-5		0.001	mg	3690	14