



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 *	2018-03-02
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 *	Giovanni Giacopello	Representative Title	ADG 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

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
STD11N50M2	TODP*MQ51B8F	A	998G	2018-03-02
	Amount	UoM	Unit type	ST ECOPACK Grade
	330	mg	Each	ECOPACK2

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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.5-6.1-2.3	3	GULL WING	
Comment	TO 252 DPAK			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 15th December 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	1.14	Die - Leadframe	3448
Lead	4.05	Soft solder	12264

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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TODP*MQ5188F					
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	4.721	mg	supplier	die	Silicon (Si)	7440-21-3		4.534	mg	960390	13739
				supplier	metallization	Aluminium (Al)	7429-90-5		0.090	mg	19064	273
				supplier	Passivation	Silicon Nitride	12033-89-5		0.021	mg	4448	64
				supplier	Passivation	Silicon Oxide	7631-86-9		0.032	mg	6778	95
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	424	6
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.031	mg	6566	94
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.011	mg	2330	33
Leadframe	M-004 Copper and its alloys	166.051	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.729	mg	992039	499179
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	993	500
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	301	152
				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	6667	3355
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.047	mg	925029	12264
Soft solder	Soldier	4.375	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.047	mg	925029	12264
				supplier	solder	Tin (Sn)	7440-31-5		0.219	mg	50057	664
				supplier	solder	Silver (Ag)	7440-22-4		0.109	mg	24914	330
Bonding wires	M-011 Other inorganic materials	0.923	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.923	mg	1000000	2797
Encapsulation	M-011 Other inorganic materials	152.885	mg	supplier	mold compound	Silica Fused	60676-86-0		116.192	mg	759996	352097
				supplier	mold compound	Silica amorphous	7631-86-9		10.855	mg	71001	32894
				supplier	mold compound	Epoxy resin.	Proprietary		15.289	mg	100003	46330
				supplier	mold compound	Phenolic Resin	Proprietary		6.115	mg	39998	18530
				supplier	mold compound	Flame Retardant	Proprietary		3.058	mg	20002	9267
				supplier	mold compound	Carbon Black	1333-86-4		1.376	mg	9000	4170
connections coating	Soldier	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167