



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 *	2018-06-27
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
STD12N60DM2AG	TXDP*FQ6FA62	A	3068	2018-06-27
Amount	UoM	Unit type	ST ECOPACK Grade	
330.00	mg	Each	ECOPACK2	
	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	
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-March 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 : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 25th May 2018			
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	0.14	Die - Leadframe	412
Lead	5.81	Soft solder	17609
Antimony trioxide	1.83	Encapsulation	5545

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	TXDP*FQ6FA62					
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	4.771	mg	supplier	die	Silicon (Si)	7440-21-3		4.622	mg	968770	14006
				supplier	metallization	Aluminium (Al)	7429-90-5		0.060	mg	12576	182
				supplier	Passivation	Silicon Oxide	7631-86-9		0.026	mg	5450	79
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	628	9
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.044	mg	9222	133
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.016	mg	3354	48
Leadframe	M-004 Copper and its alloys	165.044	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.730	mg	998097	499182
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	1000	500
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	304	152
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	557	279
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	42	21
				supplier	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	5.811	mg	954971
Soft solder	Solder	6.085	mg	supplier	solder	Silver (Ag)	7440-22-4		0.152	mg	24979	461
				supplier	solder	Tin (Sn)	7440-31-5		0.122	mg	20050	370
				supplier	wire	Aluminium (Al)	7429-90-5		0.456	mg	995633	1382
Bonding wires	M-003 Aluminum and its alloys	0.458	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.002	mg	4367	6
				supplier	silica compound	Silica, vitreous	60676-86-0		122.993	mg	805999	372706
Encapsulation	M-011 Other inorganic materials	152.597	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		10.682	mg	70001	32370
				supplier	mold compound	Phenol resin	9003-35-4		6.104	mg	40001	18497
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		9.156	mg	60001	27745
				supplier	mold compound	Antimony Trioxide	1309-64-4		1.831	mg	11999	5548
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		1.068	mg	6999	3236
				supplier	mold compound	Carbon black	1333-86-4		0.763	mg	5000	2312
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167