



## Materials Declaration Form

<b>IPC</b>	1752	<b>Version</b>	2
<b>Form Type *</b>	Distribute		
<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>	2018-01-25
<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>	Rossana Bonaccorso	<b>Representative Title</b>	ADG 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
STGD4M65DF2	XDDP*KLF2R52	A	3068	2018-01-25
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	0.11	Die / Leadframe	339
Lead	2.21	Soft solder	6700

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	XDDP*KLFR52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	1.495	mg	supplier	die	Silicon (Si)	7440-21-3		1.343	mg	898328	4070
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	20736	94
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	5351	24
				supplier	Passivation	Silicon Oxide	7631-86-9		0.067	mg	44816	203
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.007	mg	4682	21
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	1338	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	669	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.020	mg	13378	61
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	669	3
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.005	mg	3344	15
				supplier	polymer die coating	Probimide	Proprietary		0.010	mg	6689	30
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	151
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	557	279
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	42	21
Soft solder	Solder	2.315	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	2.211	mg	955076	6700
				supplier	solder	Silver (Ag)	7440-22-4		0.058	mg	25054	176
				supplier	solder	Tin (Sn)	7440-31-5		0.046	mg	19870	139
Bonding wires	M-011 Other inorganic materials	0.359	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.358	mg	997214	1085
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	2786	3
Encapsulation	M-011 Other inorganic materials	159.742	mg	supplier	mold compound	Silica, vitreous	60676-86-0		139.774	mg	874998	423558
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-bis	EC 413-900-7		6.390	mg	40002	19364
				supplier	mold compound	Epoxy Resin	25068-38-6		4.792	mg	29998	14521
				supplier	mold compound	phenol resin	29690-82-2		7.987	mg	49999	24203
				supplier	mold compound	Carbon black	1333-86-4		0.799	mg	5003	2421
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167