



## Materials Declaration Form

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

\*: Required Field

<b>Supplier Information</b>			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2018-02-02</b>
<b>Contact Name *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Authorized Representative *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Rossana Bonaccorso</b>	<b>Representative Title</b>	<b>ADG MD Champion</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
Z0110MN 5AA4	BHLM*Z1G016V	A	998G	2018-02-02
	Amount	UoM	Unit type	ST ECOPACK Grade
	110	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	
DSO	6.5-3.5-1.8	4	gull wing	
Comment	SOT 223 PLANAR and TOPGLASS			

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)
7c-1	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

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	0.01	Die	118
Lead	1.27	Soft solder	11545
Lead-Borate Glass	0.17	Die Glass coating	1536

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	BHLM*Z1G016V					
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	1.056	mg	supplier	die	Silicon (Si)	7440-21-3		0.827	mg	783144	7518
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	27462	264
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	2840	27
				supplier	metallization	Nickel (Ni)	7440-02-0		0.005	mg	4735	45
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	7576	73
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.005	mg	4735	45
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1894	18
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.008	mg	7576	73
							JIG - R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.169
Leadframe	M-004 Copper and its alloys	92.065	mg	supplier	alloy	Copper (Cu)	7440-50-8		91.457	mg	993396	831427
				supplier	alloy	Iron (Fe)	7439-89-6		0.092	mg	999	836
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.028	mg	304	256
				supplier	metallization	Silver (Ag)	7440-22-4		0.488	mg	5301	4436
Soft solder	Solder	1.153	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.101	mg	954900	10009
				supplier	solder	Silver (Ag)	7440-22-4		0.029	mg	25152	264
				supplier	solder	Tin (Sn)	7440-31-5		0.023	mg	19948	209
				supplier	wire	Copper (Cu)	7440-50-8		0.076	mg	1000000	691
Encapsulation	M-011 Other inorganic materials	12.888	mg	supplier	mold compound	Silica, vitreous	60676-86-0		11.200	mg	869025	101818
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.031	mg	79997	9373
				supplier	mold compound	Phenol Resin	26834-02-6		0.516	mg	40037	4691
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.077	mg	5975	700
				supplier	mold compound	Carbon black	1333-86-4		0.064	mg	4966	582
Connections coating	Solder	2.762	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.762	mg	1000000	25109