



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 *	2017-02-09
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacobello	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
Z0109NN 5AA4	EHLM*Z1G018S	A	994X	2017-02-09
Amount	UoM	Unit type	ST ECOPACK Grade	
123.20	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	Package: SOT 223 PLANAR and TOPGLASS; MDF valid also for Z0109SN 5AA4			

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		
7c-1	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound		
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)		

Query : California Prop65 list, dated 27th January 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	65
Lead	1.10	Soft solder	8937
Lead-Borate Glass	0.17	Die	1372

QueryList : REACH-12th January 2017				
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	EHLM*21G0185					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.050	mg	supplier	die	Silicon (Si)	7440-21-3		0.826	mg	786870	6713
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	27593	235
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	2854	24
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	7612	65
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.005	mg	4757	41
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1903	16
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.008	mg	7612	65
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.169	mg	160799	1372
Leadframe	Copper & its alloys	92.063	mg	supplier	alloy	Copper (Cu)	7440-50-8		91.483	mg	993700	742557
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.092	mg	999	747
				supplier	metallization	Silver (Ag)	7440-22-4		0.488	mg	5301	3961
Soft solder	Solder	1.153	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.101	mg	954900	8937
				supplier	solder	Silver (Ag)	7440-22-4		0.029	mg	25152	235
				supplier	solder	Tin (Sn)	7440-31-5		0.023	mg	19948	187
Bonding wires	Other inorganic materials	0.076	mg	supplier	wire	Copper (Cu)	7440-50-8		0.076	mg	1000000	617
Encapsulation	Other Organic Materials	26.096	mg	supplier	mold compound	Silica, vitreous	60676-86-0		22.676	mg	868945	184058
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		2.088	mg	80012	16948
				supplier	mold compound	Phenol Resin	26834-02-6		1.044	mg	40006	8474
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.157	mg	6017	1274
				supplier	mold compound	Carbon black	1333-86-4		0.131	mg	5020	1063
Connections coating	Solder	2.762	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.762	mg	1000000	22419