



## 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
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-02-01
<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
T405-600H	BHIK*W1G046T	A	998G	2018-02-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	310	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DIP	6.1-6.5-2.3	3	Through-hole	
Comment	IPAK TO-251			

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-I	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	0.04	Die	129
Lead	3.78	Soft solder	12206
Lead-Borate Glass	0.54	Die Glass coating	1732

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	BHIK*W1G046T					
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	3.733	mg	supplier	die	Silicon (Si)	7440-21-3		3.010	mg	806322	9710
				supplier	metallization	Aluminium (Al)	7429-90-5		0.092	mg	24645	297
				supplier	metallization	Gold (Au)	7440-57-5		0.010	mg	2680	32
				supplier	metallization	Nickel (Ni)	7440-02-0		0.016	mg	4286	52
				supplier	Passivation	Silicon Oxide	7631-86-9		0.024	mg	6429	77
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.015	mg	4018	48
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1339	16
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.024	mg	6429	77
Leadframe	M-004 Copper and its alloys	181.734	mg	JIG - R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-1-Electrical and e	0.537	mg	143852	1735
				supplier	alloy	Copper (Cu)	7440-50-8		181.497	mg	998696	585474
				supplier	alloy	Iron (Fe)	7439-89-6		0.182	mg	1001	587
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.055	mg	303	177
Soft solder	Solder	3.400	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	3.247	mg	955000	10474
				supplier	solder	Silver (Ag)	7440-22-4		0.085	mg	25000	274
				supplier	solder	Tin (Sn)	7440-31-5		0.068	mg	20000	219
Bonding wires	M-011 Other inorganic materials	0.779	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.779	mg	1000000	2513
				supplier	mold compound	Silica, vitreous	60676-86-0		101.487	mg	870005	327377
Encapsulation	M-011 Other inorganic materials	116.651	mg	supplier	mold compound	Epoxy resin	25068-38-6		11.665	mg	99999	37629
				supplier	mold compound	Phenol resin	29690-82-2		2.916	mg	24998	9406
				supplier	mold compound	Carbon Black	1333-86-4		0.583	mg	4998	1881
				supplier	solder alloy	Tin (Sn)	7440-31-5		3.703	mg	1000000	11945