



## 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>2018-06-21</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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<b>Legal Statement</b>	
<b>Supplier Acceptance *</b>	<b>Legal Declaration *</b>
<b>true</b>	<b>Standard</b>

**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
STTH1002CB-TR	HWDP*C93F022	A	994X	2018-06-21
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	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		
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	0.02	Die	66
Lead	2.66	Soft solder	8300

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	HWDP* C93F022					
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	2.933	mg	supplier	die	Silicon (Si)	7440-21-3		2.772	mg	945287	8666
				supplier	metallization	Aluminium (Al)	7429-90-5		0.034	mg	11590	106
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	3750	34
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.021	mg	7159	66
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.021	mg	7159	66
				supplier	back side metallization	Gold (Au)	7440-57-5		0.021	mg	7159	66
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.021	mg	7159	66
				supplier	polymer die coating	Propimide	Proprietary		0.032	mg	10737	96
Leadframe	M-004 Copper and its alloys	164.944	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.729	mg	998697	514778
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	1000	516
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	303	156
Soft solder	Solder	2.782	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.656	mg	954709	8300
				supplier	solder	Silver (Ag)	7440-22-4		0.070	mg	25162	219
				supplier	solder	Tin (Sn)	7440-31-5		0.056	mg	20129	175
Bonding wires	M-011 Other inorganic materials	0.739	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.739	mg	1000000	2309
Encapsulation	M-011 Other inorganic materials	147.557	mg	supplier	mold compound	Silica, vitreous	60676-86-0		132.432	mg	897497	413850
				supplier	mold compound	Epoxy resin	25068-38-6		10.329	mg	70000	32278
				supplier	mold compound	Phenol resin	29690-82-2		4.427	mg	30002	13834
				supplier	mold compound	carbon black	1333-86-4		0.369	mg	2501	1153
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266