



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<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>	2017-02-23
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacobello	<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

**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
TN1605H-6G-TR	7AD1*166DMM1	A	3068	2017-02-23
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-10.5-1.27	3	gull wing	
Comment	D2PAK CLIP			

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. piezoelectric devices, or in a glass or ceramic matrix compound

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	0.11	die backside metal	78
Lead	8.80	soft solder	6379
Lead-Borate Glass	0.34	glass coating	249

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	7AD1*166DMM1					
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	4.453	mg	supplier	die	Silicon (Si)	7440-21-3		3.928	mg	882075	2846
				supplier	metallization	Gold (Au)	7440-57-5		0.015	mg	3369	11
				supplier	Passivation	Silicon Oxide	7631-86-9		0.022	mg	4942	16
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	1123	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.107	mg	24034	78
				supplier	glass coating	Glass : Aluminium Oxide (Al2O3)	1344-28-1		0.032	mg	7188	23
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-1-Electrical and e	0.344	mg	77269	249
Leadframe	Copper & its alloys	900.739	mg	supplier	alloy	Copper (Cu)	7440-50-8		899.838	mg	999000	652057
				supplier	alloy	CopperPosphorous (CuP)	12517-41-8		0.901	mg	1000	653
Soft solder	Solder	4.366	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.018	mg	920293	2912
				supplier	solder	Silver (Ag)	7440-22-4		0.217	mg	49702	157
				supplier	solder	Tin (Sn)	7440-31-5		0.109	mg	24966	79
				supplier	solder	flux residue	Proprietary		0.022	mg	5039	16
Encapsulation	Other Organic Materials	432.503	mg	supplier	mold compound	Silica, vitreous	60676-86-0		328.703	mg	760002	238191
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		44.115	mg	101999	31967
				supplier	mold compound	Phenol resin	9003-35-4		25.950	mg	60000	18804
				supplier	mold compound	Others	Proprietary		21.625	mg	50000	15670
				supplier	mold compound	Metal hydroxide	21645-51-2		8.650	mg	20000	6111
				supplier	mold compound	Carbon black	1333-86-4		3.460	mg	8000	2507
Connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	4575
Clip	Copper & its alloys	31.625	mg	supplier	alloy	Copper ( Cu)	7440-50-8		31.625	mg	1000000	22917