Materials Declaration Form

IPC	**1752**	**Version**	**2**
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	**Subsectionals ***	A-D *** : Required Field***

Supplier Information			
Company Name *	STMicroelectronics	**Response Date ***	2018-01-26
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	**Contact Email ***	Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	**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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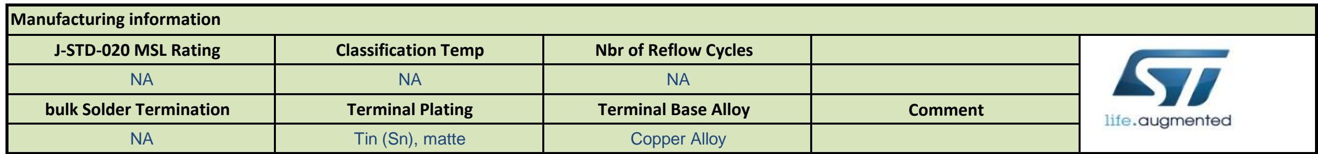
Legal Statement

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 omprehensive 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
STPSC2H12D	HSDK*HC041T7	A	3068	2018-01-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	1870	mg	Each	ECOPACK2



Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	
SIP	10.2-16.25-4.5	2	Through-hole	
Comment	DO 220			

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)

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	0.11	Die / Leadframe	60
Lead	1.31	Soft solder	698

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**	**HSDK*HC041T7**					
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	1.247	mg	supplier	die	Silicium carbide	409-21-2		1.179	mg	945469	630
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	10425	7
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	1604	1
				supplier	metallization	Nickel (Ni)	7440-02-0		0.011	mg	8821	6
				supplier	metallization	Silver (Ag)	7440-22-4		0.023	mg	18444	12
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	802	1
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	802	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1604	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	7217	5
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.006	mg	4812	3
Leadframe	M-004 Copper and its alloys	1184.409	mg	supplier	alloy	Copper (Cu)	7440-50-8		1182.771	mg	998617	632498
				supplier	alloy	Iron (Fe)	7439-89-6		1.184	mg	1000	633
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.355	mg	300	190
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	77	49
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	6	4
Soft solder	Solder	1.367	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.306	mg	955377	698
				supplier	solder	Silver (Ag)	7440-22-4		0.034	mg	24872	18
				supplier	solder	Tin (Sn)	7440-31-5		0.027	mg	19751	14
Bonding wires	M-011 Other inorganic materials	0.616	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.616	mg	1000000	330
Encapsulation	M-011 Other inorganic materials	678.120	mg	supplier	mold compound	Silica, vitreous	60676-86-0		589.964	mg	869999	315489
				supplier	mold compound	Epoxy resin	25068-38-6		67.812	mg	100000	36263
				supplier	mold compound	Phenol resin	29690-82-2		16.953	mg	25000	9066
				supplier	mold compound	Carbon Black	1333-86-4		3.391	mg	5001	1813
Connections coating	Solder	4.241	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.241	mg	1000000	2268