



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-03-07
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Authorized Representative *	Rossana Bonaccorso
Authorized Representative *	Rossana Bonaccorso	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
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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
STTH20LCD06CFP	HFUI*N97B12O	A	998G	2018-03-07
Amount	UoM	Unit type	ST ECOPACK Grade	
1900	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
SIP	10.2-16.15-4.5	3	Through-hole
Comment	TO 220 ISOL FULL PACK 0.5 AB		

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	8.17	Die - Leadframe	4302
Lead	4.29	Soft solder	2259

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	HFUI*N97B12O					
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	4.822	mg	supplier	die	Silicon (Si)	7440-21-3		4.651	mg	964625	2448
				supplier	metallization	Aluminium (Al)	7429-90-5		0.058	mg	12027	31
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	3940	10
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	415	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.007	mg	1451	4
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.032	mg	6635	17
				supplier	polymer die coating	Probimide	Proprietary		0.053	mg	10907	28
Leadframe	M-004 Copper and its alloys	613.397	mg	supplier	alloy	Copper (Cu)	7440-50-8		604.468	mg	985443	318141
				supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	986	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	297	96
Soft solder	Solder	4.494	mg	JIG - R	solder	Nickel (Ni)	7440-02-0		8.142	mg	13274	4285
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	4.292	mg	955051	2259
				supplier	solder	Silver (Ag)	7440-22-4		0.112	mg	24922	59
Bonding wires	M-011 Other inorganic materials	4.706	mg	supplier	solder	Tin (Sn)	7440-31-5		0.090	mg	20027	47
				supplier	wire	Aluminium (Al)	7429-90-5		4.706	mg	1000000	2477
Encapsulation	M-011 Other inorganic materials	1266.715	mg	supplier	mold compound	Quartz	14808-60-7		886.700	mg	700000	466684
				supplier	mold compound	Silica, vitreous	60676-86-0		95.004	mg	75000	50002
				supplier	mold compound	Epoxy resin	25068-38-6		177.340	mg	140000	93337
				supplier	mold compound	phenol resin	29690-82-2		88.670	mg	70000	46668
				supplier	mold compound	metal hydroxide	21645-51-2		12.667	mg	10000	6667
Connections coating	Solder	5.866	mg	supplier	mold compound	carbon black	1333-86-4		6.334	mg	5000	3334
				supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087