



## 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  * : Required Field

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-11-28
<b>Company Unique ID</b>	NL 008751171801		
<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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<b>Legal Statement</b>			
<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
FDA803U-KBX	HRKB*UR85BY1	A	0959	2018-11-28
	Amount	UoM	Unit type	ST ECOPACK Grade
	480	mg	Each	ECOPACK® 2
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
3	250	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	10.50 - 7.6 - 2.3	0	gull wing	
Comment	PowerSSO-36 slug up			

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	44
Lead	5.47	Soft solder	11398
Cobalt	0.001	Die	2

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	5.47	Soft solder	11398
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	5.47	Soft solder	975049

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HRKB*UR85BY1					
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	8.256	mg	supplier	die	Silicon (Si)	7440-21-3		7.461	mg	903706	15544
				supplier	metallization	Copper (Cu)	7440-50-8		0.508	mg	61531	1058
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	121	2
				supplier	metallization	Platinum (Pt)	7440-06-4		0.032	mg	3876	67
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	121	2
				supplier	metallization	Tungsten (W)	7440-33-7		0.024	mg	2907	50
				supplier	Passivation	Silicon Nitride	12033-89-5		0.025	mg	3028	52
				supplier	Passivation	Silicon Oxide	7631-86-9		0.081	mg	9812	169
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.004	mg	484	8
				supplier	back side metallization	Gold (Au)	7440-57-5		0.011	mg	1332	23
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.021	mg	2544	44
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.001	mg	121	2
				Leadframe	M-004 Copper and its alloys	187.158	mg	supplier	polymer die coating	PIX1 Polyimide	108-65-6	
supplier	alloy	Copper (Cu)	7440-50-8						180.976	mg	966969	377033
supplier	alloy	Iron (Fe)	7439-89-6						4.257	mg	22745	8869
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.256	mg	1368	533
supplier	alloy	Zinc (Zn)	7440-66-6						0.223	mg	1192	465
supplier	metallization	Silver (Ag)	7440-22-4						1.446	mg	7726	3013
Soft solder	Solder	5.611	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	5.471	mg	975049	11398
				supplier	solder	Silver (Ag)	7440-22-4		0.084	mg	14971	173
				supplier	solder	Tin (Sn)	7440-31-5		0.056	mg	9980	117
Bonding wires	M-004 Copper and its alloys	1.486	mg	supplier	wire	Copper (Cu)	7440-50-8		1.486	mg	1000000	3096
				supplier	silica vitreous	silica vitreous	60676-86-0		241.831	mg	884998	503815
Encapsulation	M-011 Other inorganic materials	273.256	mg	supplier	mold compound	Biphenyl epoxy resin	85954-11-6		14.483	mg	53002	30173
				supplier	mold compound	Phenol Resin	205830-20-2		10.930	mg	39999	22771
				supplier	mold compound	epoxy resin	25068-38-6		5.465	mg	20000	11385
				supplier	mold compound	carbon black	1333-86-4		0.547	mg	2001	1140
				supplier	solder alloy	Tin (Sn)	7440-31-5		4.233	mg	1000000	8819