



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2021-04-20
Company Unique ID	NL 008751171B01		
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 *	marianna grasso	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
RF2L16180CF2	B29C*ILHKINN	A	99GX	2021-04-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	3000.6	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		
3	250	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Gold/Cobalt (Ni/Au/Co)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
CHP	19.81-19.43-3.69	2	flat	
Comment	0.780X0.385 2L WIDE B2			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 3rd January 2020			
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	171.07	Flange - Isolator - Leadframe	57012
Beryllium	299.54	Isolator	99828

QueryList : REACH-19th January 2021				
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

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Cobalt, Gold,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	B29C*ILHKINN					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	29.388	mg	supplier	die	Silicon(Si)	7440-21-3		14.476	mg	492582	4823
				supplier	metallisation	Aluminium(Al)	7429-90-5		1.783	mg	60671	594
				supplier	metallisation	Gold(Au)	7440-57-5		11.435	mg	389104	3811
				supplier	passivation	Silicon oxide	7631-86-9		1.694	mg	57643	565
Flange	M-004 Copper and its alloys	1549.400	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		1205.325	mg	777930	401698
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		35.006	mg	22593	11666
				supplier	alloy & coating	Molybdenum(Mo)	7439-98-7		141.338	mg	91222	47104
				supplier	alloy & coating	Cobalt (Co)	7440-48-4		34.724	mg	22411	11572
				supplier	alloy & coating	Gold(Au)	7440-57-5		133.007	mg	85844	44327
Isolator	M-010 Ceramics / glass	316.500	mg	California 65	ceramic	Beryllium (Be)	7440-41-7		299.541	mg	946417	99828
				supplier	ceramic	Silicon(Si)	7440-21-3		0.356	mg	1125	119
				supplier	ceramic	Molybdenum(Mo)	7439-98-7		14.464	mg	45700	4820
				supplier	ceramic	Manganese (Mn)	7439-96-5		1.362	mg	4303	454
Leadframe / Bridge	M-002 Other ferrous alloys, non-stainless steels	342.829	mg	supplier	ceramic	Nickel (Ni)	7440-02-0		0.777	mg	2455	259
				supplier	alloy & coating	Iron(Fe)	7439-89-6		135.649	mg	395676	45208
				supplier	alloy & coating	Nickel (Ni)	7440-02-0		135.287	mg	394619	45087
				supplier	alloy & coating	Gold (Au)	7440-57-5		53.052	mg	154748	17681
				supplier	alloy & coating	Cobalt(Co)	7440-48-4		18.841	mg	54957	6279
Braze plate	M-008 Precious metals	82.871	mg	supplier	alloy	Silver (Ag)	7440-22-4		62.465	mg	753762	20818
	M-004 Copper and its alloys			supplier	alloy	Copper (Cu)	7440-50-8		20.406	mg	246238	6801
Lid / Cover	M-010 Ceramics / glass	675.450	mg	supplier	ceramic	Aluminum oxide	1344-28-1		633.645	mg	938108	211175
				supplier	ceramic	Silicon dioxide	60676-86-0		33.590	mg	49730	11195
				supplier	glue	Epoxy resin	25068-38-6		8.215	mg	12162	2738
Bonding wires	M-003 Aluminum and its alloys	6.236	mg	supplier	wires	Aluminium (Al)	7429-90-5		4.134	mg	1000000	1378