



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 *	2020-03-09
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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 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
	HYWY*A231AJY	B	9992	2020-03-09
Amount	UoM	Unit type	ST ECOPACK Grade	
16	mg	Each	ECOPACK* 3	
Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape	
DSO	2.9 x 1.6	5	gull wing	
Comment	WY SOT 23-5; MDF is valid for TSB611IYLT			

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	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 2017/2096 _November 2017	
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	0.01	Leadframe	549

QueryList : REACH-16th January 2020				
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
,			,	

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				NO
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HWY*A231AJY				5000003.0	899632.0
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	0.568	mg	supplier	die	Silicon(Si)	7440-21-3		0.568	mg	1000000	34676
Leadframe	M-004 Copper and its alloys	7.539	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		7.253	mg	962064	442796
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.009	mg	1194	549
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.175	mg	23213	10684
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.002	mg	265	122
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.009	mg	1194	549
				supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.084	mg	11142	5128
Die attach	M-015 Other organic materials	0.111	mg	supplier	alloy & coating	Gold(Au)	7440-57-5		0.007	mg	929	427
				supplier	glue	Silver (Ag)	7440-22-4		0.001	mg	9009	61
				supplier	glue	Carbocyclic Acrylates	proprietary		0.097	mg	873874	5922
				supplier	glue	Bismaleimide resin	35325-39-4		0.007	mg	63063	427
				supplier	glue	2-preponoic acid, 2-methy	68586-19-6		0.002	mg	18018	122
				supplier	glue	Additive	Proprietary		0.002	mg	18018	122
Bonding wires	M-008 Precious metals	0.153	mg	supplier	wire	Gold (Au)	7440-57-5		0.153	mg	1000000	9341
				supplier								
Encapsulation	M-015 Other organic materials	8.003	mg	supplier	mold compound	Epoxy Resin-1	Proprietary		0.159	mg	19868	9707
				supplier	mold compound	Epoxy Resin-2	Proprietary		0.159	mg	19868	9707
				supplier	mold compound	Epoxy Resin-3	Proprietary		0.159	mg	19868	9707
				supplier	mold compound	Phenol resin	Proprietary		0.368	mg	45983	22466
				supplier	mold compound	Silica	60676-86-0		6.903	mg	862552	421429
				supplier	mold compound	Carbon Black	1333-86-4		0.016	mg	1999	977
				supplier	mold compound	Others	Proprietary		0.239	mg	29864	14591