



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2021-02-15
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS Material Declaration 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 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
	MQBB*UBDHBA5	A	996H	2021-02-15
Amount	UoM	Unit type	ST ECOPACK Grade	
1.9	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	,	

Package Designator	Package Size	Nbr of instances	Shape	
QFN	1 x 1	4	Flat	
Comment	A0TH VFDFFN 1.0X1.0X0.38 4L PITCH 0,6; MDF is valid for LD59030DTPU12R			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 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 18th December 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	0.02	alloy&coating	11817

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query	Response			
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products	false			
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products	false			
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
O	O	O	O	O

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

QueryList : 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 in the component :	Gold, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

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	false
	Application Purpose

China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	
Query	Response
The product contains adhesives identified under GB 33372	false

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	MQBB*UBDHBAS		1.9520		4998148.0	1006183.0
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	0.083	mg	supplier	die	Silicon(Si)	7440-21-3		0.061	mg	734940	31443
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.001	mg	12048	515
				supplier	metallisation	Copper(Cu)	7440-50-8		0.014	mg	168675	7216
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.002	mg	24096	1031
				supplier	metallisation	Palladium(Pd)	7440-05-3		0.001	mg	12048	515
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	12048	515
Leadframe	M-004 Copper and its alloys	0.540	mg	supplier	passivation	Silicon oxide	7631-86-9		0.003	mg	36145	1546
				supplier	alloy	Copper (Cu)	7440-50-8		0.511	mg	946296	263402
				supplier	alloy	Silicon (Si)	7440-21-3		0.006	mg	11111	3093
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.001	mg	1852	515
Die attach	M-015 Other organic materials	0.010	mg	supplier	metallization	Nickel (Ni)	7440-02-0		0.021	mg	38889	10825
				supplier	glue	Silver (Ag)	7440-22-4		0.009	mg	930000	4794
				supplier	glue	CP formaldehyde & aniline, maleated	Proprietary		0.001	mg	50000	258
				supplier	glue	Modified Epoxy Resin	Proprietary		0.000	mg	10000	52
Bonding wires	M-008 Precious metals	0.020	mg	supplier	glue	proprietary	Proprietary		0.000	mg	10000	52
				supplier	wire	Gold (Au)	7440-57-5		0.020	mg	1000000	10308
				supplier	glue	proprietary	Proprietary		0.000	mg	10000	52
Encapsulation	M-015 Other organic materials	1.300	mg	supplier	mold compound	Epoxy resin	Proprietary		0.039	mg	30000	20103
				supplier	mold compound	Phenol resin	Proprietary		0.039	mg	30000	20103
				supplier	mold compound	Silica (Amorphous) A	60676-86-0		1.043	mg	802500	537758
				supplier	mold compound	Silica (Amorphous) B	7631-86-9		0.176	mg	135000	90464
				supplier	mold compound	Carbon Black	1333-86-4		0.003	mg	2500	1675