



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2020-06-16
<b>Company Unique ID</b>	NL 008751171B01		
<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>	Antonella Lanzafame	<b>Representative Title</b>	AMS 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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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
LDFM33PVR	MQBI*UA62AA5	A	Z6HA	2020-06-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	8	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		
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	20.92	6	Flat	
Comment	A0XB VFDFPN 6L 2X2X0.9 PITCH 0.65			

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 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

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				false
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose



Material Composition Declaration :						Mfr Item Name	MQBI*UA62AA5				6000001.0	1000000.0
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)
Die or dies	M-011 Other inorganic materials	0.743	mg	supplier	die	Silicon(Si)	7440-21-3		0.710	mg	955585	88750
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.007	mg	9421	875
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.001	mg	1346	125
				supplier	metallisation	Gold(Au)	7440-57-5		0.001	mg	1346	125
				supplier	metallisation	Nicel(Ni)	7440-02-0		0.003	mg	4038	375
				supplier	metallisation	Tungsten(W)	7440-33-7		0.006	mg	8075	750
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.002	mg	2692	250
Leadframe	M-004 Copper and its alloys	2.580	mg	supplier	passivation	Silicon oxide	7631-86-9		0.013	mg	17497	1625
				supplier	alloy & coating	Copper(Cu)	7440-50-8		2.492	mg	965891	311500
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.058	mg	22481	7250
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.001	mg	388	125
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.003	mg	1163	375
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.026	mg	10078	3250
Die attach	Solder	0.091	mg	supplier	glue	Silver (Ag)	7440-22-4		0.066	mg	725275	8250
				supplier	glue	methylene diacrylate	42594-17-2		0.015	mg	164835	1875
				supplier	glue	Dicyclopentyloxyethyl methacrylate	68586-19-6		0.003	mg	32967	375
				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.003	mg	32967	375
				supplier	glue	Palladium (Pd)	7440-05-3		0.003	mg	32967	375
				supplier	glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	10989	125
Bonding wires	M-008 Precious metals	0.069	mg	supplier	wire	Gold (Au)	7440-57-5		0.069	mg	1000000	8625
Encapsulation	M-011 Other inorganic materials	4.337	mg	supplier	mold compound	Silica, vitreous	60676-86-0		4.064	mg	937053	508000
				supplier	mold compound	epoxy resin	85954-11-6		0.130	mg	29975	16250
				supplier	mold compound	phenol resin	26834-02-6		0.130	mg	29975	16250
				supplier	mold compound	carbon black	1333-86-4		0.013	mg	2997	1625
connections coating	Solder	0.180	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.180	mg	1000000	22500