



## 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  <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2019-11-22
<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>	Floriana SAN BIAGIO	<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

**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
	DZWX*96VA2MC	A	9992-ZS1A	2019-11-22
Amount	UoM	Unit type	ST ECOPACK Grade	
9	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		
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	
SOT	2.8 x 1.5	3	gull wing	
Comment	WX SOT 23 3 LDS; MDF is valid for STM1812MWX7F			

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 13th September 2019			
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	0.03	leadframe metalization	3111

QueryList : REACH-16th July 2019				
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
,	0			
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
,	0		,	

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	DZWX*96VA2MC				4999999.0	999999.0
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	0.578	mg	supplier	die	Silicon(Si)	7440-21-3		0.567	mg	980969	63000
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.002	mg	3460	222
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	1730	111
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.002	mg	3460	222
				supplier	passivation	Silicon oxide	7631-86-9		0.006	mg	10381	667
Leadframe	M-004 Copper and its alloys	2.449	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		2.358	mg	962842	262000
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.028	mg	11433	3111
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.055	mg	22458	6111
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.001	mg	408	111
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.003	mg	1225	333
Die attach	M-015 Other organic materials	0.030	mg	supplier	alloy & coating	Palladium(Pd)	7440-05-3		0.002	mg	817	222
				supplier	alloy & coating	Gold(Au)	7440-57-5		0.002	mg	817	222
				supplier	glue	Aluminium oxide	1344-28-1		0.009	mg	300000	1000
				supplier	glue	Diethylene glycol monoethyl ether acetate (2	112-15-2		0.012	mg	400000	1333
				supplier	glue	Epoxy resin 1	25068-38-6		0.002	mg	66667	222
Bonding wires	M-008 Precious metals	0.099	mg	supplier	glue	Epoxy resin 2	Proprietary		0.006	mg	200000	667
				supplier	glue	Aromatic amine	Proprietary		0.001	mg	33333	111
				supplier	wire	Gold (Au)	7440-57-5		0.099	mg	1000000	11000
Encapsulation	M-015 Other organic materials	5.844	mg	supplier	mold compound	Epoxy Resin-1	Proprietary		0.177	mg	30287	19667
				supplier	mold compound	Epoxy Resin-2	25068-38-6		0.177	mg	30287	19667
				supplier	mold compound	Phenol resin	29690-82-2		0.221	mg	37817	24556
				supplier	mold compound	Silica	60676-86-0		5.139	mg	879363	571000
				supplier	mold compound	Carbon Black	1333-86-4		0.012	mg	2053	1333
				supplier	mold compound	Others	Proprietary		0.118	mg	20192	13111