



## 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>	2019-07-03
<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>	Giovanni Giacopello	<b>Representative Title</b>	ADG 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**

**Supplier Acceptance \*** **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
VN5160S-E	RSKU*VNJ5BA3	A	SHENZHEN B/E	2019-07-03
	Amount	UoM	Unit type	ST ECOPACK Grade
	80	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
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	CD00342163	

Package Designator	Size	Nbr of instances	Shape	
DSO	4,9,6,1.75	8	gull wing	
Comment	SO 08 STRIP SINGLE ISLAND 4+3+1			

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 28th June 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	0.02	Die - Leadframe	288

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
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	RSKU*VNU5BA3					
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	1.980	mg	supplier	die	Silicon(Si)	7440-21-3		1.856	mg	937374	23200
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.011	mg	5556	138
				supplier	metallisation	Copper(Cu)	7440-50-8		0.015	mg	7576	188
				supplier	metallisation	Gold(Au)	7440-57-5		0.003	mg	1515	38
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.013	mg	6566	163
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.049	mg	24747	613
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.009	mg	4545	113
				supplier	passivation	Silicon oxide	7631-86-9		0.024	mg	12121	300
Leadframe	M-004 Copper and its alloys	29.759	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		29.710	mg	998353	371375
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		0.010	mg	336	125
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.014	mg	470	175
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.025	mg	841	313
Die attach		0.428	mg	supplier	glue or tape (choose)	Silver(Ag)	7440-22-4		0.382	mg	892523	4775
				supplier	glue or tape	hobornyl Methacrylate	7534-94-3		0.030	mg	70093	375
				supplier	glue or tape	Bismaleimide resin	proprietary		0.013	mg	30374	163
				supplier	glue or tape	Epoxyoctahydroxyethyltrimethoxysilane	3388-04-3		0.003	mg	7010	38
Bonding wires	M-008 Precious metals	0.242	mg	supplier	wire	Gold(Au)	7440-57-5		0.242	mg	1000000	3025
Bonding wires 2	M-004 Copper and its alloys	0.167	mg	supplier	wire	Copper(Cu)	7440-50-8		0.167	mg	1000000	2081
Encapsulation	M-011 Other inorganic materials	47.424	mg	supplier	mold compound	Silica vitreous	60676-86-0		41.069	mg	865996	513363
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		3.557	mg	75004	44463
				supplier	mold compound	Phenol resin	26834-02-6		2.371	mg	49996	29638
				supplier	mold compound	Carbon black	1333-86-4		0.237	mg	4998	2963
				supplier	mold compound	Bismuth compound	7440-69-9		0.190	mg	4006	2375