



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2019-01-28
Company Unique ID	NL 008751171801		
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 *	Giovanni Giacobello	Representative Title	ADG 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


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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
VN5160STR-E	RTKU*VNJ5BAC	A	3068	2019-01-28
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK2	
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		
NA	NiThPdAgAu	Copper Alloy		

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 26th October 2018			
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	0.08	Die - Leadframe	1050

QueryList : REACH-15th January 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	RTKU*VNJSBAC					
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	2.003	mg	supplier	die	Silicon (Si)	7440-21-3		1.856	mg	926610	23200
				supplier	metallization	Aluminium (Al)	7429-90-5		0.011	mg	5492	138
				supplier	metallization	Copper (Cu)	7440-50-8		0.015	mg	7489	188
				supplier	metallization	Titanium (Ti)	7440-32-6		0.048	mg	23964	600
				supplier	Passivation	Silicon Nitride	12033-89-5		0.009	mg	4493	113
				supplier	Passivation	Silicon Oxide	7631-86-9		0.024	mg	11982	300
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	499	13
				supplier	back side metallization	Gold (Au)	7440-57-5		0.003	mg	1498	38
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	6490	163
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.023	mg	11483	288
Leadframe	M-004 Copper and its alloys	30.063	mg	supplier	alloy	Copper (Cu)	7440-50-8		29.710	mg	988258	371375
				supplier	alloy	Iron (Fe)	7439-89-6		0.030	mg	998	375
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	299	112
				supplier	metallization	Nickel (Ni)	7440-02-0		0.071	mg	2362	888
				supplier	metallization	Palladium (Pd)	7440-05-3		0.005	mg	166	63
				supplier	metallization	Gold (Au)	7440-57-5		0.002	mg	67	25
				supplier	metallization	Silver (Ag)	7440-22-4		0.236	mg	7850	2950
				supplier	glue	Silver (Ag)	7440-22-4		0.660	mg	905350	8250
Die attach	M-015 Other organic materials	0.729	mg	supplier	glue	Isobornyl Methacrylate	7534-94-3		0.040	mg	54870	500
				supplier	glue	Bismaleimide resin	35325-39-4		0.029	mg	39780	363
				supplier	wire	Gold (Au)	7440-57-5		0.116	mg	716049	1450
Bonding wires		0.162	mg	supplier	wire	Copper (Cu)	7440-50-8		0.046	mg	283951	570
				supplier	mold compound	Silica, vitreous	60676-86-0		40.740	mg	866016	509250
Encapsulation	M-011 Other inorganic materials	47.043	mg	supplier	mold compound	Epoxy Resin	25068-38-6		3.528	mg	74995	44100
				supplier	mold compound	Phenol Resin	29690-82-2		2.352	mg	49997	29400
				supplier	mold compound	Carbon black	1333-86-4		0.235	mg	4996	2938
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.188	mg	3996	2350