



## 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>	2018-07-17
<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		
<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
VND7020AJ	RRTI*VNY6BLS	A	64BA	2018-07-17
Amount	UoM	Unit type	ST ECOPACK Grade	
113.00	mg	Each	ECOPACK2	
	Comment	#N/A		

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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	3.9-4.9-1.55	16	gull wing	
Comment	POWERSO-16			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

California 65 list			
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	Die	292
Lead	5.18	Soft solder	45841

QueryList : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	5.18	Soft solder	45841
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	5.18	Soft solder	954839

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	RRTI*VN768LS					
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	6.239	mg	supplier	die	Silicon (Si)	7440-21-3		5.654	mg	906235	50035
				supplier	metallization	Aluminium (Al)	7429-90-5		0.096	mg	15387	850
				supplier	metallization	Copper (Cu)	7440-50-8		0.039	mg	6251	345
				supplier	metallization	Titanium (Ti)	7440-32-6		0.020	mg	3206	177
				supplier	metallization	Tungsten (W)	7440-33-7		0.201	mg	32217	1779
				supplier	Passivation	Silicon Nitride	12033-89-5		0.014	mg	2244	124
				supplier	Passivation	Silicon Oxide	7631-86-9		0.099	mg	15868	872
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	481	27
				supplier	back side metallization	Gold (Au)	7440-57-5		0.008	mg	1282	71
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.033	mg	5289	292
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.003	mg	481	27
				supplier	polymer die coating	PDI Gamma-butyrolactone	96-48-0		0.069	mg	11059	611
				Leadframe	M-004 Copper and its alloys	70.072	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.069	mg	985	611
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.021	mg	300	186
supplier	metallization	Silver (Ag)	7440-22-4						0.731	mg	10432	6469
Soft solder	Solder	5.425	mg	SVHC	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	5.180	mg	954839	45841
				supplier	solder	Silver (Ag)	7440-22-4		0.136	mg	25069	1204
				supplier	solder	Tin (Sn)	7440-31-5		0.109	mg	20092	965
Bonding wires	M-004 Copper and its alloys	0.836	mg	supplier	wire	Copper (Cu)	7440-50-8		0.836	mg	1000000	7398
				supplier	mold compound	Silica, vitreous	60676-86-0		25.169	mg	863994	222735
Encapsulation	M-011 Other inorganic materials	29.131	mg	supplier	mold compound	Epoxy Resin	25068-38-6		2.185	mg	75006	19336
				supplier	mold compound	Phenol Resin	29690-82-2		1.457	mg	50015	12894
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		0.146	mg	5011	1292
				supplier	mold compound	Quartz	14808-60-7		0.087	mg	2987	770
				supplier	mold compound	Carbon black	1333-86-4		0.087	mg	2987	770
connections coating	Solder	1.297	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.297	mg	1000000	11478