



## Materials Declaration Form

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

*\* : Required Field*

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2020-06-30</b>
<b>Company Unique ID</b>	<b>NL 008751171B01</b>		
<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>	<b>giovanni giacopello</b>	<b>Representative Title</b>	<b>ADG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
VND5E050J-E	AR0T*VNP3ADC	A	64BA	2020-06-30
	Amount	UoM	Unit type	ST ECOPACK Grade
	114	mg	Each	ECOPACK 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

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	Tin (Sn), matte, annealed	Copper Alloy	CD00311177	

Package Designator	Size	Nbr of instances	Shape	
QFP	4.90,3.90,1.55	12	gull wing	
Comment	POWERSO-12. MDF valid for CPs: VND5E050J-E,VND5E050JTR-E,VND5E050JTRL-E			

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	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

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
Nickel	0.04	die	308
Lead	2.72	soft solder	23974
Antimony trioxide	0.46	encapsulation	4053

QueryList : REACH-25th June 2020				
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	2.72	Soft solder	23974
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	2.721	Soft solder	924881

Material Composition Declaration :						Mfr Item Name	AR0T*VNP3ADC					
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	M-011 Other inorganic materials	4.454	mg	supplier	die	Silicon(Si)	7440-21-3		4.047	mg	908621	35659
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.032	mg	7185	282
				supplier	metallisation	Copper(Cu)	7440-50-8		0.042	mg	9430	370
				supplier	metallisation	Gold(Au)	7440-57-5		0.008	mg	1796	70
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.035	mg	7858	308
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.137	mg	30759	1207
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.024	mg	5388	211
				supplier	passivation	Silicon oxide	7631-86-9		0.066	mg	14818	581
				supplier	polymer coating	Polyimide	Proprietary		0.063	mg	14145	555
				supplier	alloy & coating	Copper(Cu)	7440-50-8		66.377	mg	997640	584819
Leadframe	M-004 Copper and its alloys	66.534	mg	supplier	alloy & coating	Iron(Fe)	7439-89-6		0.031	mg	466	273
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.056	mg	842	493
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.070	mg	1052	617
				supplier	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	2.721	mg	924881	23974
Soft solder	Solder	2.942	mg	supplier	solder	Tin(Sn)	7440-31-5		0.147	mg	49966	1295
				supplier	solder	Silver(Ag)	7440-22-4		0.074	mg	25153	652
				supplier	wire	Gold(Au)	7440-57-5		0.137	mg	1000000	1207
Bonding wires	M-008 Precious metals	0.137	mg	supplier	wire	Gold(Au)	7440-57-5		0.137	mg	1000000	1207
Bonding wires 2	M-004 Copper and its alloys	0.227	mg	supplier	wire	Copper(Cu)	7440-50-8		0.227	mg	1000000	2000
Encapsulation	M-011 Other inorganic materials	38.234	mg	supplier	mold compound	Silica vitreous	60676-86-0		31.467	mg	823011	277242
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		2.676	mg	69990	23577
				supplier	mold compound	Phenol resin	9003-35-4		1.529	mg	39991	13471
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.147	mg	29999	10106
				supplier	mold compound	Antimony trioxide	1309-64-4		0.459	mg	12005	4044
				supplier	mold compound	Brominated epoxy resin	40039-93-8		0.765	mg	20008	6740
				supplier	mold compound	Carbon black	1333-86-4		0.191	mg	4996	1683
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.972	mg	1000000	8564
connections coating	Solder	0.972	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.972	mg	1000000	8564