



## 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>	2017-01-24
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<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
VNQ690SP-E	LBK3*VND5X3A	A	64BA	2017-01-24
	Amount	UoM	Unit type	ST ECOPACK Grade
	1074.00	mg	Each	ECOPACK1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	250	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	9.5-9.4-3.5	10	flat	
Comment	PowerSO 10 POWER 5/SIGNAL SIDE 5			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-20th June 2016				
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

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr item Name	LBK3*VND5X3A					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	11.940	mg	supplier	die	Silicon (Si)	7440-21-3		11.594	mg	971024	10796
				supplier	metallization	Aluminium (Al)	7429-90-5		0.082	mg	6867	76
				supplier	Passivation	Silicon Nitride	12033-89-5		0.082	mg	6867	76
				supplier	Passivation	Silicon Oxide	7631-86-9		0.080	mg	6700	74
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.006	mg	502	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.017	mg	1424	16
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.079	mg	6616	74
Leadframe	Copper & its alloys	632.903	mg	supplier	alloy	Copper (Cu)	7440-50-8		629.570	mg	994734	586192
				supplier	alloy	Iron (Fe)	7439-89-6		0.290	mg	459	270
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.530	mg	837	493
				supplier	metallization	Nickel (Ni)	7440-02-0		0.121	mg	191	113
				supplier	metallization	Gold (Au)	7440-57-5		2.392	mg	3779	2227
Soft solder	Solder	10.889	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	10.399	mg	955000	9682
				supplier	solder	Silver (Ag)	7440-22-4		0.272	mg	24980	253
				supplier	solder	Tin (Sn)	7440-31-5		0.218	mg	20020	203
Bonding wires	Other inorganic materials	1.295	mg	supplier	wire	Gold (Au)	7440-57-5		0.146	mg	112741	136
				supplier	wire	Aluminium (Al)	7429-90-5		1.149	mg	887259	1070
Encapsulation	Other Organic Materials	414.210	mg	supplier	mold compound	Silica, vitreous	60676-86-0		329.296	mg	794998	306607
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		34.794	mg	84000	32397
				supplier	mold compound	Phenol resin	9003-35-4		20.711	mg	50001	19284
				supplier	mold compound	Antimony Trioxide	1309-64-4		8.284	mg	20000	7712
				JIG - I	mold compound	Brominated Epoxy Resin	68541-56-0		6.213	mg	15000	5785
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		4.971	mg	12001	4628
				supplier	mold compound	Bismuth Trioxide	1304-76-3		4.142	mg	10000	3857
				supplier	mold compound	Bismuth nitrate	10361-44-1		4.142	mg	10000	3857
Connections coating	Solder	2.763	mg	supplier	mold compound	carbon black	1333-86-4		1.657	mg	4000	1543
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.763	mg	1000000	2573