




Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-11-27
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 *	Rossana Bonaccorso	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	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
VNN3NV04PTR-E	FTLL*VNS6AA3	A	998G	2018-11-27
Amount	UoM	Unit type	ST ECOPACK Grade	
110.00	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	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
DSO	6.5-3.5-1.8	4	gull wing
Comment	SOT 223		

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 25th May 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	0.02	Die	164
Lead	2.53	Soft solder	23036

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	2.53	Soft solder	23036
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	2.53	Soft solder	955145

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr item Name	FTLL*VNS6AA3					
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	2.745	mg	supplier	die	Silicon (Si)	7440-21-3		2.637	mg	960656	23973
				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	5829	145
				supplier	Passivation	Silicon Nitride	12033-89-5		0.019	mg	6922	173
				supplier	Passivation	Silicon Oxide	7631-86-9		0.018	mg	6557	164
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	364	9
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1457	36
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.018	mg	6557	164
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.032	mg	11658	291
Leadframe	M-004 Copper and its alloys	91.577	mg	supplier	alloy	Copper (Cu)	7440-50-8		91.457	mg	998690	831427
				supplier	alloy	Iron (Fe)	7439-89-6		0.092	mg	1004	836
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.028	mg	306	255
Soft solder	Solder	2.653	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.534	mg	955145	23036
				supplier	solder	Silver (Ag)	7440-22-4		0.066	mg	24877	600
				supplier	solder	Tin (Sn)	7440-31-5		0.053	mg	19978	482
Bonding wires	M-011 Other inorganic materials	0.289	mg	supplier	wire	Gold (Au)	7440-57-5		0.289	mg	1000000	2627
Encapsulation	M-011 Other inorganic materials	9.974	mg	supplier	mold compound	Silica, vitreous	60676-86-0		8.667	mg	868959	78791
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.798	mg	80008	7255
				supplier	mold compound	Phenol Resin	26834-02-6		0.399	mg	40004	3627
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.060	mg	6016	545
				supplier	mold compound	Carbon black	1333-86-4		0.050	mg	5013	455
Connections coating	Solder	2.762	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.762	mg	1000000	25109