



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2018-03-15
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier comment section	<b>Contact Title</b>	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>	Yves HALLEZ	<b>Representative Title</b>	IMG Material Declaration 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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<b>Legal Statement</b>	<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
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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
VD6281TF46/1	6C45*281Q/FV	B	Xintec-995W	2018-03-15
Amount	UoM	Unit type	ST ECOPACK Grade	
4.0	mg	Each	ECOPACK* 2	
Comment	ECOPACK* 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	Comment	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Tin/Silver/Copper (SAC305)	Not Applicable	Copper Alloy	BOM 1F131126 / BSA : DM00511265	



Package Designator	Size	Nbr of instances	Shape
BARE DIE	1.832 x 1.075 x 0.555 mm	6	bulk solder
Comment	WLCSP T SHAPE		

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

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	TRUE

QueryList : California Prop65 list, dated 15th December 2017			
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	metallisation, NO skin contact expected	4100

QueryList : REACH- 15th January 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
Hexahydrophthalic anhydride	1000 ppm	0.0097	adhesive material	2425
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Homogeneous Material above the limits per the definition within REACH				TRUE

Material Composition Declaration						Mfr Item Name	6C45*281Q/FV			UoM	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
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	1.537	mg	supplier	die	Silicon (Si)	7440-21-3		1.446	mg	940794	361500	
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.021	mg	13663	5250	
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.006	mg	3904	1500	
				supplier	metallisation	Tungsten (W)	7440-33-7		0.006	mg	3904	1500	
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.005	mg	3253	1250	
				supplier	passivation	Silicon Oxide	7631-86-9		0.053	mg	34483	13250	
Glass	M-015 Other organic materials	2.110	mg	supplier	glass	Silica, vitreous	60676-86-0		2.110	mg	1000000	527400	
Glue	M-015 Other organic materials	0.019	mg	supplier	Glue	Bisphenol A type epoxy resin	25068-38-6		0.010	mg	500000	2425	
				SVHC	Glue	Alicyclic acid anhydride	85-42-7		0.010	mg	500000	2425	
Solder mask	M-015 Other organic materials	0.135	mg	supplier	solder mask	Copolymer of carboxylic polyester resin and ep	proprietary		0.090	mg	666172	22450	
				supplier	solder mask	Pigment	proprietary		0.001	mg	7418	250	
				#N/A	solder mask	Siliceous earth	1020665-14-8		0.040	mg	293027	9875	
				supplier	solder mask	Silica, amorphous	112926-00-8		0.005	mg	33383	1125	
Metal traces	M-009 Other non-ferrous metals and	0.024	mg	supplier	RDL traces	Aluminium (Al)	7429-90-5		0.006	mg	245902	1500	
				supplier	RDL traces	Copper (Cu)	7440-50-8		0.001	mg	40984	250	
				supplier	RDL traces	Nickel (Ni)	7440-02-0		0.016	mg	672131	4100	
				supplier	RDL traces	Gold (Au)	7440-57-5		0.001	mg	40984	250	
				supplier	Solder ball	Tin (Sn)	7440-31-5		0.168	mg	963387	42100	
Solder paste	Solder	0.175	mg	supplier	Solder ball	Silver (Ag)	7440-22-4		0.005	mg	30892	1350	
				supplier	Solder ball	Copper (Cu)	7440-50-8		0.001	mg	5721	250	