



## 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>	2019-02-14
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Yves HALLEZ	<b>Contact Title</b>	IMD MDF Champion
<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**

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

<b>Legal Statement</b>			
<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
VL53L0CKV0DH/1	TXDH*3LOKBAR	A	SHENZHEN	2019-02-14
Amount	UoM	Unit type	ST ECOPACK Grade	
18.2	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		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Gold (Ni/Au)	Copper Alloy	BSA : DM00554491 : BOM:1F140722	



Package Designator	Size	Nbr of instances	Shape	
LGA	4.4 x 2.4 x 1.0mm	12	flat	
Comment				

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 26th October 2018			
Query			
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	0.098	Substrate metalization	5385
Gallium Arsenide	0.014	Vescel dice	769

QueryList : REACH- 15th January 2019	
Query	Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	TRUE
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

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update!!	
Query	Response
The Product does contain at least one of the substances listed in Chemical Control Act	NO

Material Composition Declaration						Mfr Item Name	TXDH*3L0KBAR			15.108		10/20/20	10/27/20			
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in Homogeneous material (ppm)	Concentration in product (ppm)				
Die or Dies or Wafer (choose)	M-011 Other inorganic materials	1.167	mg	supplier	die	Silicon (Si)	7440-21-3		1.100	mg	942588	60440				
				supplier	die	Gallium Arsenide	1303-00-0		0.014	mg	11997	769				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.005	mg	4284	275				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.013	mg	11140	714				
				supplier	metallisation	Gold (Au)	7440-57-5		0.001	mg	857	55				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.005	mg	4284	275				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.001	mg	857	55				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.007	mg	5998	385				
				supplier	passivation	Silicon Oxide	7631-86-9		0.015	mg	12853	824				
				supplier	polymer coating	Polymer resist (color, planar,plens)	proprietary		0.006	mg	5141	330				
				substrate	M-015 Other organic materials	6.902	mg	supplier	laminare	Fiber glass	65997-17-3		1.566	mg	226891	86044
								supplier	laminare	Bismaleimide polymer	105391-33-1		0.530	mg	76789	29121
								supplier	laminare	Triazine (T)	25722-66-1		0.530	mg	76789	29121
								supplier	laminare	Thermosetting resin	54208-63-8		0.822	mg	119096	45165
								supplier	laminare	Aluminium hydroxide	21645-51-2		0.036	mg	5216	1978
								supplier	laminare	Calcium sulfate	7778-19-9		0.018	mg	2808	989
								supplier	laminare	Zinc hydroxide	20427-58-1		0.007	mg	1014	385
								supplier	laminare	Barium sulfate	7727-43-7		0.356	mg	51579	19560
								supplier	laminare	Bisphenol F type epoxy resin	9003-36-5		0.173	mg	25065	9505
supplier	laminare	polymerized Biphenyl resin	85954-11-6						0.163	mg	23616	8956				
supplier	laminare	Talc containing no asbestiform fibers	14807-96-6						0.144	mg	20864	7912				
supplier	laminare	Methoxymethylethoxy propanol	34590-94-8						0.129	mg	18690	7088				
supplier	laminare	Amorphous silica	7631-86-9						0.115	mg	16662	6319				
supplier	laminare	Morpholine derivative	119313-12-1						0.055	mg	7969	3022				
supplier	laminare	Naphta	64742-94-5						0.011	mg	1584	604				
supplier	laminare	Copper Phthalocyanine	14302-13-7						0.001	mg	145	55				
supplier	M-004 Copper and its alloys		metallisation					Copper (Cu)	7440-50-8		2.127	mg	308172	116868		
supplier	M-006 Nickel and its alloys		metallisation					Nickel (Ni)	7440-02-0		0.098	mg	14199	5385		
supplier			metallisation					Gold (Au)	7440-57-5		0.021	mg	3043	1154		
Die attach	M-015 Other organic materials	0.110	mg	supplier	glue or tape	Epoxy acrylic resin	proprietary		0.053	mg	481818	2912				
				supplier	glue or tape	Phenol resin	9003-35-4		0.044	mg	400000	2418				
				supplier	glue or tape	ather	proprietary		0.013	mg	118182	714				
Die attach 2	M-015 Other organic materials	0.002	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.002	mg	1000000	110				
				supplier	wire	Gold (Au)	7440-57-5		0.041	mg	1000000	2253				
Bonding wire	M-008 Precious metals	0.041	mg	supplier	wire	Gold (Au)	7440-57-5		0.041	mg	1000000	2253				
IR Glass attach and Cap attach glu	M-010 Ceramics / glass	0.881	mg	supplier	glue or tape		39817-09-9		0.260	mg	294695	14258				
				supplier	glue or tape		2425-79-8		0.106	mg	120825	5846				
				supplier	glue or tape		68475-94-5		0.027	mg	30255	1464				
				supplier	glue or tape		Proprietary		0.027	mg	30255	1464				
				supplier	glue or tape		1333-86-4		0.009	mg	10020	485				
				supplier	glue or tape		60676-86-0		0.204	mg	232024	11226				
				supplier	glue or tape		9002-84-0		0.222	mg	251866	12186				
				supplier	glue or tape		9046-10-0		0.026	mg	30059	1454				
				supplier	IR Glass	1.566	mg	supplier	glass	glass	65997-17-3		1.540	mg	983397	84615
				supplier	coating		Silicon (Si)	7440-21-3		0.015	mg	9579	824			
supplier	coating		Tantalum(Ta)	7440-25-7		0.011	mg	7024	604							
Cap	M-015 Other organic materials	5.331	mg	supplier	cap	Polynonamethylene terephthalamide	189284-22-4		3.427	mg	642844	188297				
				supplier	cap	Calcium silicate	13983-17-0		1.850	mg	347027	101648				
				supplier	cap	Additf	proprietary		0.054	mg	10129	2967				
Liner	M-015 Other organic materials	2.200	mg	supplier	liner	Polynonamethylene terephthalamide	proprietary		1.333	mg	605909	73242				
				supplier	liner	Calcium silicate	proprietary		0.867	mg	394091	47637				