



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2016-04-08
Contact Name *	Refer to Supplier comment section	Contact Title	Refer to Supplier comment section
Authorized Representative *	Yves HALLEZ	Representative Title	Imaging Material Declaration 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 Statement	Legal Declaration *
Standard	
<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 omprehensive 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
VL53LOCXV0DH/1	LXDH*3LOKBAR	A	ST SHENZHEN	2016-04-08
	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	
NAC	Nickel/Gold (Ni/Au)	Copper Alloy	DM00219053 DM00223202 BOM 1F136232 / 1F137983	



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 _ANNEX IV	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false

QueryList : REACH-15th June 2015	
Query	Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH	true

Material Composition Declaration						Mfr Item Name	LXDH*3LOKBAR					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	1.167	mg	supplier	die	Silicon (Si)	7440-21-3		1.0940	mg	937446	60110
				supplier	die	Gallium Arsenide	1303-00-0		0.0140	mg	11997	769
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.0050	mg	4284	275
				supplier	metallisation	Copper (Cu)	7440-50-8		0.0100	mg	8569	549
				supplier	metallisation	Gold (Au)	7440-57-5		0.0010	mg	857	55
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.0050	mg	4284	275
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.0020	mg	1714	110
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.0090	mg	7712	495
				supplier	passivation	Silicon Oxide	7631-86-9		0.0210	mg	17995	1154
				supplier	die polymer coat	Polymer resist (color, planar,μlens)	proprietary		0.0060	mg	5141	330
substrate	Other Organic Materials	6.554	mg	supplier	core material	Fiber glass	65997-17-3		1.5660	mg	238938	86044
				supplier	core material	Bisphenol F type epoxy resin	9003-36-5		0.8720	mg	133049	47912
				supplier	core material	Bismaleimide (B)	105391-33-1		0.5300	mg	80867	29121
				supplier	core material	Triazine (T)	25722-66-1		0.5300	mg	80867	29121
				supplier	core material	metal hydroxide	21645-51-2		0.0360	mg	5493	1978
				supplier	core material	Zinc hydroxyde	20427-58-1		0.0070	mg	1068	385
				supplier	core material	Calcium sulfate	7778-18-9		0.0180	mg	2746	989
				supplier	Solder mask	Acrylic resin	9003-01-4		0.2560	mg	39060	14066
				supplier	Solder mask	Barium sulfate	7727-43-7		0.0730	mg	11138	4011
				supplier	Solder mask	epoxy resin	85954-11-6		0.0630	mg	9612	3462
				supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6		0.0440	mg	6713	2418
				supplier	Solder mask	aromatic hydrocarbon	Proprietary		0.0290	mg	4425	1593
				supplier	Solder mask	(2-methoxymethylethoxy)propanol	34590-94-8		0.0150	mg	2289	824
				supplier	Solder mask	Quartz	14808-60-7		0.0050	mg	763	275
supplier	Solder mask	amine compound	Proprietary		0.0010	mg	153	55				
supplier	metallisation	Copper (Cu)	7440-50-8		2.5090	mg	382820	137857				
Die attach	Other Organic Materials	0.152	mg	supplier	tape	Acrylic resin	9003-01-4		0.0730	mg	480263	4011
				supplier	tape	epoxy resin	Proprietary		0.0520	mg	342105	2857
				supplier	tape	Bisphenol A diglycidyl ether	25036-25-3		0.0270	mg	177632	1484
Die attach 2	Other Organic Materials	0.002	mg	supplier	glue	Silver (Ag)	7440-22-4		0.0020	mg	1000000	110
Bonding wire	Precious metals	0.081	mg	supplier	wire	Gold (Au)	7440-57-5		0.0810	mg	1000000	4451
Glass	Ceramics / Glass	1.566	mg	supplier	glass	Inorganic glass	65997-17-3		1.5560	mg	993614	85495
				supplier	coating	Amorphous silica	7631-86-9		0.0050	mg	3193	275
				supplier	coating	Trititanium pentoxide	12065-65-5		0.0050	mg	3193	275
cap	Other Organic Materials	5.598	mg	supplier	Mount	Polynonamethylene terephthalamide	169284-22-4		3.5984	mg	642844	197712
				supplier	Mount	Calcium silicate	13983-17-0		1.9421	mg	346952	106708
				supplier	Mount	Additif	Proprietary		0.0571	mg	10204	3138
				supplier	glue	2,2'-[methylenebis(phenyleneoxymethylene)]	39817-09-9		0.2595	mg	294695	14258
IR Glass attach and Cap attach glue	Other Organic Materials	0.881	mg	supplier	glue	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.1064	mg	120825	5846
				supplier	glue	Epoxy resin	68475-94-5		0.0266	mg	30255	1464
				supplier	glue	Imidazole derivative	Proprietary		0.0266	mg	30255	1464
				supplier	glue	Carbon Black	1333-86-4		0.0088	mg	10020	485
				supplier	glue	Silica, vitreous	60676-86-0		0.2043	mg	232024	11226
				supplier	glue	Tetrafluoroethylene	9002-84-0		0.2218	mg	251866	12186
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.0265	mg	30059	1454
liner	Other Organic Materials	2.200	mg	supplier	organic	Polymide film	Proprietary		1.3330	mg	605909	73242
				supplier	organic	Acrylate copolymer	Proprietary		0.8670	mg	394091	47637