




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 *	2017-02-21
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Yves HALLEZ	Representative Title	IMG 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
VL53L1CXV0FY/1	LXFY-3L1KBAQ	B	SHENZHEN	2017-02-21
	Amount	UoM	Unit type	ST ECOPACK Grade
	27.20	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 (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	
NAC	Nickel/Gold (Ni/Au)	Copper Alloy	BSA : DM00391070 BOM 1F139376 / 1F139601	

Package Designator	Size	Nbr of instances	Shape	
LGA	4.9x2.5x1.56 mm	12	flat	
Comment				

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	TRUE

Query : California Prop65 list, dated 27th January 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.27	Substrate and SMD metalization	10000

QueryList : REACH-12th January 2017			
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	LXFY-3L1K8AQ					
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		1.094	mg	937446	40221
				supplier	die	Gallium Arsenide	1303-00-0		0.014	mg	11997	515
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.005	mg	4284	184
				supplier	metallisation	Copper (Cu)	7440-50-8		0.010	mg	8569	368
				supplier	metallisation	Gold (Au)	7440-57-5		0.001	mg	857	37
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.005	mg	4284	184
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.002	mg	1714	74
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.009	mg	7712	331
				supplier	passivation	Silicon Oxide	7631-86-9		0.021	mg	17995	772
				supplier	die polymer coating	Proprietary			0.006	mg	5141	221
substrate	Other Organic Materials	10.013	mg	supplier	core material	Fiber glass	65997-17-3		1.092	mg	109058	40147
				supplier	core material	Bisphenol F type epoxy resin	9003-36-5		0.608	mg	60721	22353
				supplier	core material	Bismaleimide (B)	105391-33-1		0.370	mg	36952	13603
				supplier	core material	Triazine (T)	25722-66-1		0.370	mg	36952	13603
				supplier	core material	metal hydroxide	21645-51-2		0.025	mg	2497	919
				supplier	core material	Zinc hydroxide	20427-58-1		0.005	mg	499	184
				supplier	core material	Calcium sulfate	7778-18-9		0.012	mg	1198	441
				supplier	prepreg	Fiber glass	65997-17-3		0.176	mg	17577	6471
				supplier	prepreg	Bismaleimide	105391-33-1		0.045	mg	4494	1654
				supplier	prepreg	Triazine (T)	25722-66-1		0.045	mg	4494	1654
				supplier	prepreg	Bisphenol F type epoxy resin	9003-36-5		0.030	mg	2996	1103
				supplier	prepreg	metal hydroxide	21645-51-2		0.003	mg	300	110
				supplier	prepreg	Calcium sulfate	7778-18-9		0.002	mg	200	74
				supplier	Solder mask	Acrylic resin	9003-01-4		0.411	mg	41047	15110
				supplier	Solder mask	Barium sulfate	7727-43-7		0.117	mg	11685	4301
				supplier	Solder mask	epoxy resin	85954-11-6		0.101	mg	10087	3713
				supplier	Solder mask	Talc containing no asbestos fibers	14807-96-6		0.070	mg	6991	2574
				supplier	Solder mask	aromatic hydrocarbon	Proprietary		0.047	mg	4694	1728
				supplier	Solder mask	[2-methoxymethylethoxy]propanol	34590-94-8		0.023	mg	2297	846
				supplier	Solder mask	Quartz	14808-60-7		0.008	mg	799	294
				supplier	Solder mask	amine compound	Proprietary		0.002	mg	200	74
				supplier	metallisation	Copper (Cu)	7440-50-8		6.230	mg	622191	229044
				supplier	metallisation	Nickel (Ni)	7440-02-0		0.196	mg	19575	7206
supplier	metallisation	Gold (Au)	7440-57-5		0.025	mg	2497	919				
Die attach	Other Organic Materials	0.153	mg	supplier	glue	Acrylic resin	9003-01-4		0.073	mg	477124	2684
				supplier	glue	epoxy resin	Proprietary		0.052	mg	339869	1912
				supplier	glue	Bisphenol A diglycidyl ether	25036-25-3		0.028	mg	183007	1029
Die attach 2		0.002	mg	supplier	glue	Silver	7440-22-4		0.002	mg	1000000	74
Bonding wire	Precious metals	0.081	mg	supplier	wire	Gold (Au)	7440-57-5		0.081	mg	1000000	2978
Glass	Other Organic Materials	1.566	mg	supplier	glass	Inorganic glass	65997-17-3		1.556	mg	993614	57206
				supplier	glass	Amorphous silica	7631-86-9		0.005	mg	3193	184
				supplier	glass	Tritanium pentoxide	12065-65-5		0.005	mg	3193	184
Cap	Other Organic Materials	10.529	mg	supplier	Mount	Polynonylamine terephthalamide	169284-22-4		5.483	mg	520752	201581
				supplier	Mount	Calcium silicate	13983-17-0		2.959	mg	281033	108787
				supplier	Mount	Additif	Proprietary		0.087	mg	8263	3199
				supplier	Lens	Thermoplastic Polyimide (TPI) resin	Proprietary		2.000	mg	189952	73529
solder paste	Solder	0.104	mg	supplier	solder paste	Tin (Sn)	7440-31-5		0.098	mg	942308	3603
				supplier	solder paste	Silver (Ag)	7440-22-4		0.003	mg	28846	110
				supplier	solder paste	Copper (Cu)	7440-50-8		0.001	mg	9615	37
				supplier	solder paste	resin	Proprietary		0.002	mg	19231	74
				supplier	solder paste	resin	Proprietary		0.002	mg	19231	74
SMD	Other inorganic materials	0.284	mg	supplier	ceramic	Barium titanate oxide	12047-27-7		0.185	mg	651408	6801
				supplier	insulator	Glass	65997-17-3		0.008	mg	28169	294
				supplier	electrode	Copper (Cu)	7440-50-8		0.008	mg	28169	294
				supplier	metallisation	Nickel (Ni)	7440-02-0		0.076	mg	267606	2794
				supplier	metallisation	Tin (Sn)	7440-31-5		0.007	mg	24648	257
Cap attach glue	Other Organic Materials	0.881	mg	supplier	glue	2,2-[methylenebis(phenyleneoxy)methylene]]bis	39817-09-9		0.260	mg	295119	9559
				supplier	glue	1,4-bis(2,3-epoxypropoxy)butane	2425-79-8		0.106	mg	120318	3897
				supplier	glue	Epoxy resin	68475-94-5		0.027	mg	30647	993
				supplier	glue	imidazole derivative	Proprietary		0.027	mg	30647	993

				supplier	glue	Carbon Black	1333-86-4		0.009	mg	10216	331
				supplier	glue	Silica, vitreous	60676-86-0		0.204	mg	231555	7500
				supplier	glue	Tetrafluoroethylene	9002-84-0		0.222	mg	251986	8162
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.026	mg	29512	956
Lens fix glue	Other Organic Materials	0.220	mg	supplier	adhesive	amorphous silica	7631-86-9		0.066	mg	301370	2426
				supplier	adhesive	Hexamethylene diisocyanate	28182-81-2		0.022	mg	100457	809
				supplier	adhesive	Phenol resin	9003-35-4		0.015	mg	68493	551
				supplier	adhesive	Toluenesulphonyl isocyanate	4083-64-1		0.001	mg	4566	37
				supplier	adhesive	Carbon black	1333-86-4		0.001	mg	4566	37
				supplier	adhesive	other polymer	Proprietary		0.113	mg	515982	4154
				supplier	adhesive	Trimethoxyvinylsilane	2768-86-4		0.001	mg	4566	37
Liner	Other Organic Materials	2.200	mg	supplier	organic	Polyimide film	Proprietary		1.333	mg	605909	49007
				supplier	organic	Acrylate copolymer	Proprietary		0.867	mg	394091	31875