



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-06-09
Contact Name *	Refer to Supplier comment section	Contact Title	Refer to Supplier comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG 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 Declaration *	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 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	21AA*MV3TAHA	A	MA1A	2017-06-09
Amount	UoM	Unit type	ST ECOPACK Grade	
6.4	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 ; if coating is used (e.g. Nickel/Palladium/Gold (Ni/Pd/Au), ENI		Copper Alloy		



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Package Designator	Size	Nbr of instances	Shape	
LGA	2x2x0.8	10	No lead	
Comment	Package: A0XA HLGA 2.0x2.0x0.8 MAX 10Lead; MDF valid for LPS22HBTR			

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	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
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devi

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
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	21AA*MV3TAHA									
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	2.486	mg	supplier	die	Silicon (Si)	7440-21-3		2.283	mg	918343	356719				
				supplier	metallisation	Aluminium (Al)	7429-90-5		0.010	mg	4023	1563				
				supplier	metallisation	Copper (Cu)	7440-50-8		0.011	mg	4425	1719				
				supplier	metallisation	Gold (Au)	7440-57-5		0.037	mg	14883	5781				
				supplier	metallisation	Palladium (Pd)	7440-05-3		0.001	mg	402	156				
				supplier	metallisation	Tantalum (Ta)	7440-25-7		0.002	mg	805	313				
				supplier	metallisation	Titanium (Ti)	7440-32-6		0.004	mg	1609	625				
				supplier	metallisation	Tungsten (W)	7440-33-7		0.003	mg	1207	469				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-5		0.013	mg	5229	2031				
				supplier	passivation	Silicon Oxide	7631-86-9		0.030	mg	12068	4688				
				JG - R	die glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and electror	0.092	mg	37007	14375				
				substrate	Other inorganic materials	1.524	mg	supplier	core material	Fiber glass	65997-17-3		0.211	mg	138481	32969
				supplier				core material	Bisphenol F type epoxy resin	9003-36-5		0.118	mg	77444	18438	
				supplier				core material	Bismaleimide (B)	105391-33-1		0.072	mg	47254	11250	
supplier	core material	Triazine (T)	25722-66-1					0.072	mg	47254	11250					
supplier	core material	metal hydroxide	21645-51-2					0.005	mg	3282	781					
supplier	core material	Zinc hydroxyde	20427-58-1					0.001	mg	656	156					
supplier	core material	Calcium sulfate	7778-18-9					0.002	mg	1313	313					
supplier	Solder mask	Barium sulfate	7727-43-7					0.014	mg	9188	2188					
supplier	Solder mask	Acrylic resin	9003-01-4					0.022	mg	14439	3438					
supplier	Solder mask	Epoxy resin	29690-82-2					0.017	mg	11157	2656					
supplier	Solder mask	Biphenyl epoxy resin	85954-11-6					0.011	mg	7219	1719					
supplier	Solder mask	Talc containing no asbestiform fibers	14807-96-6					0.008	mg	5250	1250					
supplier	Solder mask	Methoxymethylethoxy propanol	34590-94-8					0.002	mg	1313	313					
supplier	Solder mask	Amorphous silica	7631-86-9					0.002	mg	1313	313					
supplier	Solder mask	3-methyl-methoxy-butyl	103429-90-9		0.001	mg	656	156								
supplier	Solder mask	Silica Cristobalite	14464-46-1		0.001	mg	656	156								
supplier	metallisation	Copper (Cu)	7440-50-8		0.954	mg	626116	149063								
supplier	metallisation	Nickel (Ni)	7440-02-0		0.008	mg	5513	1313								
supplier	metallisation	Gold (Au)	7440-57-5		0.001	mg	748	178								
supplier	metallisation	Palladium (Pd)	7440-05-3		0.001	mg	748	178								
Die attach	Other Organic Materials	0.096	mg	supplier	tape	epoxy resin	Proprietary		0.061	mg	635417	9531				
				supplier	tape	polyolefin	9003-07-0		0.030	mg	312500	4688				
supplier	tape	Diphenol Propane Diglycidyl Ether	1675-54-3		0.005	mg	52083	781								
Bonding wire	Precious metals	0.138	mg	supplier	wire	Gold (Au)	7440-57-5		0.138	mg	1000000	21563				
encapsulation	Other Organic Materials	2.156	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1.866	mg	865492	291563				
				supplier	mold compound	Epoxy Resin	85954-11-6		0.086	mg	39889	13438				
				supplier	mold compound	Phenol Resin	26834-02-6		0.086	mg	39889	13438				
				supplier	mold compound	Epoxycle Bisphenol A Resin	25068-38-6		0.065	mg	30148	10156				
				supplier	mold compound	Aluminium hydroxyde	21645-51-2		0.043	mg	19944	6719				
supplier	mold compound	Carbon black	1333-86-4		0.010	mg	4638	1563								