



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-09-16
Company Unique ID	NL 008751171B01		
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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 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
	Z2EE*AU10BCA	A	1054	2020-09-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	37.0	mg	Each	ECOPACK® 2

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), electrolytic	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
LGA	4 x 4	16	Flat	
Comment	A0CZ LLGA 4x4x1.1 16L Pitch 0.65; MDF is valid for I3G4250D and I3G4250DTR			

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

QueryList : ELV directive : 2000/53/EC amended 2020/363_March 2020	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	false
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	true
Exemption Id.	Description
10a	10a - Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound.

QueryList : California Prop65 list, dated 3rd January 2020			
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	0.190	substrate	5135
Lead	0.328	die passivation	8865
Lead-Borate Glass	0.544	die passivation	14703

QueryList : REACH-25th June 2020				
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
:				
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
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Homogeneous Material (mg)	Application - Homogeneous Material	ppm in Homogeneous Material
:				

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				false
Substance present in device Homogeneous Material				
Substance	Homogeneous Material impacted	Concentration in the material(%)	Application Purpose	

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tantalum, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration						Mfr Item Name	22EE*AU10BCA		37.00%		5000002.0	1000000.0				
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)				
Dies	M-011 Other inorganic materials	12.308	mg	supplier	die	Silicon(Si)	7440-21-3		11.122	mg	903640	300595				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.032	mg	2600	865				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.056	mg	4550	1514				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.011	mg	894	297				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.006	mg	487	162				
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	81	27				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-6		0.022	mg	1787	595				
				supplier	passivation	Silicon Oxide	7631-86-9		0.514	mg	41761	13892				
				supplier	JIG-R & California 65	Lead-Borate Glass	65997-18-4	7c-I-Electrical and electr	0.544	mg	44199	14703				
				supplier		Fiber glass	85997-17-3		1.285	mg	186556	34730				
Substrate	M-015 Other organic materials	6.858	mg	supplier	laminata	Bismaleimide polymer	105391-33-1		0.431	mg	62573	11649				
				supplier	laminata	Triazine (T)	25722-66-1		0.431	mg	62573	11649				
				supplier	laminata	Thermosetting resin	54208-63-8		0.721	mg	104675	19486				
				supplier	laminata	Aluminium hydroxide	21645-51-2		0.029	mg	4210	784				
				supplier	laminata	Calcium sulfate	7778-18-9		0.015	mg	2178	405				
				supplier	laminata	Zinc hydroxide	20427-58-1		0.009	mg	1307	243				
				supplier	laminata	Barium sulfate	7727-43-7		0.417	mg	60540	11270				
				supplier	laminata	Bisphenol F type epoxy resin	9003-36-5		0.403	mg	58508	10892				
				supplier	laminata	polymerized Biphenyl resin	85954-11-6		0.164	mg	23810	4432				
				supplier	laminata	Talc containing no asbestiform fibers	14807-96-6		0.101	mg	14663	2730				
				supplier	laminata	Methoxymethylethoxy propanol	34590-94-8		0.099	mg	14373	2676				
				supplier	laminata	Amorphous silica	7631-86-9		0.076	mg	11034	2054				
				supplier	M-004 Copper and its alloys	metallisation	Copper(Cu)	7440-50-8	2.483	mg	360482	67108				
				supplier	M-006 Nickel and its alloys	metallisation	Nickel(Ni)	7440-02-0	0.190	mg	27584	5135				
				supplier		metallisation	Gold(Au)	7440-57-5	0.034	mg	4936	919				
				Die attach	M-015 Other organic materials	0.243	mg	supplier	tape	Epoxy resin	25068-39-6		0.153	mg	629630	4135
								supplier	tape	Polypropylene	9003-07-0		0.005	mg	20576	135
supplier	tape	epoxy resin	29690-82-2						0.024	mg	98765	649				
supplier	tape	Propenoate polymer	538311-13-6						0.049	mg	201646	1324				
supplier	tape	Bisphenol A diglycidyl ether	1675-54-3						0.012	mg	49383	324				
supplier		wire	Gold(Au)					7440-57-5	0.102	mg	990291	2757				
Bonding wire	M-008 Precious metals	0.103	mg	supplier	wire	Palladium(Pd)	7440-05-3		0.001	mg	9709	27				
				supplier												
Encapsulation	M-015 Other organic materials	17.458	mg	supplier	mold compound	Silica vitreous	60676-86-0		15.110	mg	865506	408378				
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.698	mg	39982	18865				
				supplier	mold compound	Phenol resin	26834-02-6		0.698	mg	39982	18865				
				supplier	mold compound	Epoxyde bisphenol A resin	25068-38-6		0.524	mg	30015	14162				
				supplier	mold compound	Aluminium hydroxide	21645-51-2		0.349	mg	19991	9432				
supplier		mold compound	Carbon black	1333-86-4	0.079	mg	4525	2135								