



## Materials Declaration Form

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

\* : Required Field

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2020-04-29
<b>Contact Name *</b>	Refer to Supplier comment section	<b>Contact Title</b>	Refer to Supplier comment section
<b>Contact Phone *</b>	Refer to Supplier comment section	<b>Contact Email *</b>	Refer to Supplier comment section
<b>Authorized Representative *</b>	Floriana SAN BIAGIO	<b>Representative Title</b>	AMS Material Declaration Champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<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**

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Legal Statement	
<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
	KKCC*MY12ABD	A	9935-Z35A	2020-04-29
	Amount	UoM	Unit type	ST ECOPACK Grade
	24	mg	Each	ECOPACK® 1

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), electrolytic	Copper Alloy	0	



Package Designator	Size	Nbr of instances	Shape	
LGA	3.5 x 2.65	4	flat	
Comment	B043 RHLGA 3.5X2.65X0.98 MM 4L; MDF is valid for MP23DB01HPTR			

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
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
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirement without any exemptions	TRUE
2 - Product(s) meets EU ELV requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

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	3.152	substrate/metal cap	130442

QueryList : REACH-16th January 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				NO
Substance present in device Homogeneous Material				
Substance	Homogeneous Material impacted	Concentration in the material(%)	Application Purpose	

Material Composition Declaration						Mr Item Name	KKCC'MY12ABD		24.10%		858942.0	888888.0				
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	3.525	mg	supplier	die	Silicon(Si)	7440-21-3		3.462	mg	982128	143271				
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.003	mg	851	124				
				supplier	metallisation	Copper(Cu)	7440-50-8		0.012	mg	3404	497				
				supplier	metallisation	Gold(Au)	7440-57-5		0.001	mg	284	41				
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.002	mg	567	83				
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	284	41				
				supplier	Passivation	Silicon Nitride (SiN)	12033-89-6		0.014	mg	3972	579				
				supplier	passivation	Silicon Oxide	7631-86-9		0.030	mg	8511	1242				
				Substrate	M-015 Other organic materials	11.856	mg	supplier	laminata	Continuous Filament Fiber Glass	65997-17-3		0.570	mg	48077	23589
								supplier	laminata	Inorganic fillers	proprietary		0.350	mg	29521	14484
supplier	laminata	Halogen free Resin	proprietary						0.503	mg	42426	20816				
supplier	laminata	Proprietary polymer dielectric	proprietary						0.021	mg	1771	869				
supplier	laminata	Resin and Barium Titanate	12047-27-7						0.021	mg	1771	869				
supplier	laminata	Copper(Cu)	7440-50-8						5.849	mg	476468	233778				
supplier	laminata	Cured Resin	proprietary						1.606	mg	135459	66463				
supplier	laminata	Copper Phthalocyanine	147-14-8						0.005	mg	422	207				
supplier	laminata	Organic pigment	proprietary						0.003	mg	253	124				
supplier	laminata	Silica	7631-86-9						0.490	mg	41329	20278				
supplier	laminata	Barium sulfate	7727-43-7						0.288	mg	24291	11919				
supplier	laminata	Talc	14807-96-6						0.104	mg	8772	4304				
supplier	laminata	Organic filler	proprietary						0.078	mg	6579	3228				
supplier	laminata	Antifoamer and Leveling agent	proprietary						0.034	mg	2868	1407				
M-006 Nickel and its alloys	supplier	metallisation	Nickel(Ni)					7440-02-0		2.004	mg	169028	82933			
	supplier	metallisation	Gold(Au)					7440-57-5		0.130	mg	10965	5380			
Die attach	M-015 Other organic materials	0.036	mg					supplier	glue	Dimethyl siloxane,Dimethylvinyl-terminatrd	68083-19-2		0.023	mg	640000	953
								supplier	glue	Treated silica	proprietary		0.004	mg	100000	149
								supplier	glue	Fused silica	60676-86-0		0.005	mg	150000	223
								supplier	glue	Methylated silica	67762-90-7		0.003	mg	80000	119
				supplier	glue	Epoxy Resin	25036-25-3		0.002	mg	600000	74				
Die attach 2	M-015 Other organic materials	0.003	mg	supplier	glue	Epoxy Resin	25036-25-3		0.002	mg	600000	74				
Bonding wire	M-008 Precious metals	0.137	mg	supplier	wire	Gold (Au)	7440-57-5		0.137	mg	1000000	5670				
				supplier	soft solder	Tin (Sn)	7440-31-5		0.765	mg	800000	31650				
solder paste	Solder	0.956	mg	supplier	soft solder	Antimony (Sb)	7440-36-0		0.097	mg	101674	4023				
				supplier	soft solder	Rosin	proprietary		0.047	mg	49163	1945				
				supplier	soft solder	Polyolefin	proprietary		0.047	mg	49163	1945				
subelement1	M-011 Other inorganic materials	7.651	mg	supplier	metal cap	Copper(Cu)	7440-50-8		3.726	mg	487053	154215				
				supplier	metal cap	Zinc (Zn)	7440-66-6		2.010	mg	262711	83182				
				supplier	metal cap	Iron (F)	7439-89-6		0.001	mg	144	46				
				supplier	metal cap	Nickel(Ni)	7440-02-0		1.148	mg	150046	47509				
supplier	metal cap	Gold (Au)	7440-57-5		0.765	mg	99987	31659								