



## Material declaration form

General Information			
IPC	1752	Version	2
Form type*	Distribute		
Sectionals*	Material information	Subsectionals*	A-D
	Manufacturing information		*: Required Field

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2024-09-23
Contact name*	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact phone*	Refer to Supplier Comment section	Contact email*	Refer to Supplier Comment section
Authorized representative*	giovanni giacopello	Representative title	MDRF Material Declaration champion
Representative phone*	Refer to Supplier Comment section	Representative email*	Refer to Supplier Comment section
Supplier comment	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**

Supplier acceptance*	Legal declaration*	Standard
true		

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	Manufacturing site	date
SPC58EC80E5QMC1X	BDX6*FC80BAQ	A	1054	2024-09-23
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	1020.00	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 temperature	Number of reflow cycles		
3	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy	DM00773598	
Package designator	Package size	Number of instances	Shape	
QFP	20.00x20.00x1.00	144	Gull wing	
Comment	TQFP 144 20x20x1.0 1.0 ExpadDown. MDF valid for CPs: SPC584C70E5E011X,SPC584C70E5E0K1X,SPC584C70E5NPK1Y,SPC584C70E5QM01X,SPC584C70E5QMC1X,SPC584C74E5FMC1X,SPC584C80E5F0C1X,SPC58EC80E5EMC1X,SPC58EC80E5FMC1X,SPC58EC80E5QMC1X,SPC58EC80E5QMC1Y			

QueryList : RoHS Directive 2011/65/EU- 8 June 2011 – Annex II amended by Delegated Directive 2015/863 - 31 March 2015		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		Response
1 - Product(s) meets EU ELV requirements without any exemptions		True
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)		False
Exemption Id.	Description	

QueryList : California Prop65 list, dated 29th December 2023			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	3.355	die - leadeframe	3289

QueryList : REACH-27th June 2024				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 Embedded article nor Homogeneous Material above the limits per the definition within REACH				True
CategoryLevel_Name	CategoryLevel_Threshold	Amount in embedded article / Homogeneous material (mg)	Application - article / Homogeneous material	ppm in article /Homogeneous material



QueryList : Responsible metals sourcing	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 :	<b>Gold, Tantalum, Tungsten,</b>

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update	Response
The Product does contain at least one of the substances listed in Chemical Control Act	False

QueryList : China GB 33372-2020 Limit standard for volatile organic compounds content in adhesives - 4 March 2020 application date 1st December 2020	Response
The product contains adhesives identified under GB 33372	False

Stockholm Convention Persistent Organic Pollutants	Response
Product is compliant with Stockholm Convention Persistent Organic Pollutants Annex I	True

QueryList : EUSR Directive	Response
Product contains hazardous materials listed in EUSR Annex II	False

PFAS/PTFE Declaration	Response
The product is containing at least one of the following PFAS substance: Polytetrafluoroethylene,Thiophenium, Triphenylsulfonium nonaflate, Trifluoroacetic anhydride	False

BPA Declaration	Response
Product does not contain Bisphenol A (Isopropylidenediphenol)	True

Montreal Protocol	Response
Product does not contain Ozone Depleting Substances based on Annex I to Annex VII of EU REGULATION (EC) No 1005/2009	True

Environmental Protection Agency:Toxic Substances Control Act (TSCA). Section 6(h)	Response
Product does not contain Phenol, isopropylated, phosphate (3:1)	True



Material Composition Declaration :						Mfr Item Name	BDX6*FC80BAQ					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous material	Material group	Mass	Unit of measure	Level	Substance category	Substance	CAS	Exempt	Mass	Unit of measure	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	28.912	mg	supplier	die	Silicon(Si)	7440-21-3		27.892	mg	964722	27342
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.121	mg	4185	119
				supplier	metallisation	Copper(Cu)	7440-50-8		0.379	mg	13109	372
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.002	mg	69	2
				supplier	metallisation	Tantalum(Ta)	7440-25-7		0.062	mg	2144	61
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.011	mg	380	11
				supplier	metallisation	Tungsten(W)	7440-33-7		0.002	mg	69	2
				supplier	passivation	Silicon oxide	7631-86-9		0.443	mg	15322	434
				Leadframe	M-004 Copper and its alloys	360.897	mg	supplier	alloy	Copper(Cu)	7440-50-8	
supplier	alloy	Iron(Fe)	7439-89-6						8.194	mg	22705	8033
supplier	alloy	Iron phosphide	1310-43-6						0.493	mg	1366	483
supplier	alloy	Zinc(Zn)	7440-66-6						0.429	mg	1189	421
supplier	metallization	Nickel (Ni)	7440-02-0						3.353	mg	9291	3287
supplier	metallization	Gold (Au)	7440-57-5						0.055	mg	152	54
Tape	M-015 Other organic materials	9.178	mg					supplier	resin	Polyimide film	proprietary	
				supplier	resin	Polyethylene -terephthalate film	25038-59-9		3.295	mg	359011	3230
				supplier	resin	NBR	9003-18-3		0.477	mg	51972	468
				supplier	resin	Phenol resin	28453-20-5		0.431	mg	46960	423
				supplier	resin	2, 2'-Bis-[4-(4-maleimidephenoxy)phenyl]propan	79922-55-7		0.450	mg	49030	441
				Die attach	M-011 Other inorganic materials	3.519	mg	supplier	glue	Silver(Ag)	7440-22-4	
supplier	glue	Bismaleimide resin	35325-39-4						0.479	mg	136118	470
supplier	glue	Additives	proprietary						0.067	mg	19039	66
Bonding wires	M-004 Copper and its alloys	2.014	mg	supplier	wire	Copper(Cu)	7440-50-8		2.014	mg	1000000	1975
Encapsulation	M-011 Other inorganic materials	615.480	mg	supplier	mold compound	Silica vitreous	60676-86-0		455.148	mg	739501	446224
				supplier	mold compound	Amorphous silica	7631-86-9		92.322	mg	150000	90512
				supplier	mold compound	Epoxy type resin	proprietary		46.161	mg	75000	45256
				supplier	mold compound	Phenol type resin	proprietary		18.464	mg	29999	18102
				supplier	mold compound	Carbon black	1333-86-4		3.385	mg	5500	3319