



Material declaration form

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

Supplier Information			
Company name*	STMicroelectronics	Response Date*	2025-01-02
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*	MDG CHAMPION	Representative title	MDGMaterial 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
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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
STM32U595ZIT6	281A*481XXXW	A	9991	2025-01-02
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	1304	mg	Each	ECOPACK® 2

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	Tin (Sn), matte, annealed	Copper Alloy	0	
Package designator	Package size	Number of instances	Shape	
QFP	20x20	144	Gull wing	
Comment		Package : 1A LQFP 144 20X20X1.4 2 0099183		

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 : REACH-27th June 2024				Response
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
,	#N/A			



Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	281A*481XXXW		1303.5000		6000000.0	1000000.0				
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 or dies	M-011 Other inorganic materials	29.477	mg	supplier	die	Silicon (Si)	7440-21-3		28.028	mg	950865	21502				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.172	mg	5827	132				
				supplier	metallization	Copper (Cu)	7440-50-8		0.539	mg	18277	413				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.002	mg	66	1				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.088	mg	2980	67				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.016	mg	530	12				
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	66	1				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.630	mg	21389	484				
				Leadframe (C7025 + Ag)	Copper & its alloys	330.000	mg	supplier	Leadframe	Copper (Cu)	7440-50-8		315.975	mg	957500	242405
								supplier	Leadframe	Nickel (Ni)	7440-02-0		9.834	mg	29800	7544
supplier	Leadframe	Silicon (Si)	7440-21-3						2.145	mg	6500	1646				
supplier	Leadframe	Magnesium (Mg)	7439-95-4						0.495	mg	1500	380				
supplier	Leadframe	Silver (Ag)	7440-22-4						1.551	mg	4700	1190				
Glue Epoxy (EN-4900G)	Precious metals	5.498	mg	supplier	Glue or tape	Silver (Ag)	7440-22-4		4.151	mg	755000	3184				
				supplier	Glue or tape	Cresol Novolac Epoxy Resins	Proprietary		0.137	mg	25000	105				
				supplier	Glue or tape	Bisphenol A Diacrylate	Proprietary		0.467	mg	85000	359				
				supplier	Glue or tape	Dicyclopentenyl group containing Acrylate	Proprietary		0.302	mg	55000	232				
				supplier	Glue or tape	Butadiene copolymer	Proprietary		0.055	mg	10000	42				
				supplier	Glue or tape	Polybutadiene epoxidized derivative	Proprietary		0.302	mg	55000	232				
				supplier	Glue or tape	Peroxy Ketals	Proprietary		0.027	mg	5000	21				
				supplier	Glue or tape	Substitutedalkoxyalkyl trimethoxysilane	Proprietary		0.027	mg	5000	21				
				supplier	Glue or tape	Methacrylate multialkoxy-substitutedalkyl ester	Proprietary		0.027	mg	5000	21				
				Bonding wire (Cu)	Precious metals	1.591	mg	supplier	Bonding wire	Copper (Cu)	7440-50-8		1.536	mg	965500	1178
supplier	Bonding wire	Palladium (Pd)	7440-05-3						0.049	mg	31000	38				
supplier	Bonding wire	Gold (Au)	7440-57-5						0.006	mg	3500	4				
supplier	Bonding wire	2,2'-((3,3',5,5'-Tetramethyl-1,1'-biphenyl)-4,4'-diylidene)bis(4-methylphenol)	85954-11-6						37.017	mg	40000	28398				
Encapsulation (EME-G631SH)	M-011 Other inorganic materials	925.434	mg	supplier	Molding Compound	Epoxy resin	Proprietary		18.509	mg	20000	14199				
				supplier	Molding Compound	Phenol Resin	Proprietary		69.408	mg	75000	53247				
				supplier	Molding Compound	Silica(Amorphous) A	60676-86-0		656.596	mg	709500	503717				
				supplier	Molding Compound	Silica(Amorphous) B	7631-86-9		138.815	mg	150000	106494				
				supplier	Molding Compound	Carbon black	1333-86-4		5.090	mg	5500	3905				
				supplier	Molding Compound	Tin (Sn)	7440-31-5		11.499	mg	999900	8822				
External Plating (Sn)	M-011 Other inorganic materials	11.500	mg	supplier	Matte Sn	Impurities	Proprietary		0.001	mg	100	1				