



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*	2024-10-28
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
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
STM32G491RET3	655W*479XXXZ	A	998Z	2024-10-28
Amount	Unit of measure	Unit type	ST ECOPACK grade	
360	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	10x10	64	Gull wing	
Comment	Package : 5W LQFP 64 10x10x1.4 1 0051434			

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	655W*479XXXZ		359.5247		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	11.090	mg	supplier	die	Silicon (Si)	7440-21-3		10.111	mg	911738	28124				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.045	mg	4032	124				
				supplier	metallization	Copper (Cu)	7440-50-8		0.417	mg	37634	1161				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.134	mg	12097	373				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	448	14				
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	448	14				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.104	mg	9409	290				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.268	mg	24194	746				
				Glue epoxy (EN4900GC)	Other Organic Materials	0.644	mg	supplier	Organic Compounds	Acrylic resin	Proprietary		0.045	mg	70000	125
								supplier	Organic Compounds	Polybutadiene derivative	Proprietary		0.013	mg	20000	36
supplier	Organic Compounds	Butadiene copolymer	Proprietary						0.010	mg	15000	27				
supplier	Organic Compounds	Acrylate	Proprietary						0.035	mg	54000	97				
supplier	Organic Compounds	Epoxy resin	Proprietary						0.019	mg	30000	54				
supplier	Organic Compounds	Peroxide	Proprietary						0.005	mg	8000	14				
supplier	Organic Compounds	Additive	Proprietary						0.012	mg	18000	32				
supplier	Metals	Silver	7440-22-4						0.505	mg	785000	1405				
Encapsulation (EME-G700LAL-A)	Other Organic Materials	241.328	mg	supplier	Organic Compounds	Epoxy Resin	Proprietary		13.273	mg	55000	36918				
				supplier	Organic Compounds	Phenol Resin	Proprietary		5.068	mg	21000	14096				
				supplier	Glass	Silica(Amorphous)A	60676-86-0		193.062	mg	800000	536993				
				supplier	Glass	Silica(Amorphous)B	7631-86-9		28.718	mg	119000	79878				
				supplier	Organic Compounds	Carbon Black	1333-86-4		1.207	mg	5000	3356				
Bonding wire (Cu)	Bonding Wire	0.725	mg	supplier	Metals	Copper	7440-50-8		0.700	mg	965500	1947				
				supplier	Metals	Palladium	7440-05-3		0.022	mg	31000	63				
				supplier	Metals	Gold	7440-57-5		0.003	mg	3500	7				
Plating anode (Sn)	Other inorganic materials	1.438	mg	supplier	Metals	Tin	7440-31-5		1.438	mg	1000000	3999				
Leadframe (C7025 + Ag)	Copper & its alloys	104.300	mg	supplier	Metals	Copper	7440-50-8		101.536	mg	973499	282417				
				supplier	Metals	Iron	7439-89-6		2.377	mg	22790	6611				
				supplier	Metals	Phosphor	7723-14-0		0.026	mg	250	73				
				supplier	Metals	Zinc	7440-66-6		0.131	mg	1260	366				
				supplier	Metals	Silver	7440-22-4		0.229	mg	2200	638				
				SVHC	Metals	Lead	7439-92-1		0.000	mg	1	0				