



## 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*	2025-04-10
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 : <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*	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
STM32U5A5ZJY3QTR	E64H*481XXXW	A	997C	2025-04-10
	Amount	Unit of measure	Unit type	ST ECOPACK grade
	37	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL rating	Classification temperature	Number of reflow cycles		
1	260	3		
Bulk solder termination	Terminal plating	Terminal base alloy	Comment	
Tin/Silver/Copper (SAC405)	Not Applicable	NAC	0	
Package designator	Package size	Number of instances	Shape	
WLCSP	NA	150	Bulk solder	
Comment	Package : B0DX WLCSP 150 PITCH 0.4 DIE 481 DM00802253			

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-21st January 2025				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	E64H*481XXXW		37.3343		1000000.0	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	23.306	mg	supplier	die	Silicon (Si)	7440-21-3		19.950	mg	856024	534365.53				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.372	mg	15950	9956.65				
				supplier	metallization	Copper (Cu)	7440-50-8		1.105	mg	47422	29602.77				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.003	mg	142	88.64				
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.189	mg	8117	5066.97				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.046	mg	1994	1244.74				
				supplier	metallization	Tungsten (W)	7440-33-7		0.007	mg	285	177.91				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.266	mg	11393	7111.98				
				supplier	Passivation	Silicon Oxide	7631-86-9		1.367	mg	58673	36626.11				
				BSC (LC89R25)		1.339	mg	supplier	Coating film	Silica	Proprietary		0.769	mg	574000	20592.95
								supplier	Coating film	Epoxy resin	Proprietary		0.285	mg	213000	7641.64
				Solder balls (SAC405)		7.047	mg	supplier	Coating film	Acrylic resin	Proprietary		0.285	mg	213000	7641.64
supplier	Solder ball	Tin (Sn)	7440-31-5						6.730	mg	955000	180272.97				
				supplier	Solder ball	Silver (Ag)	7440-22-4		0.282	mg	40000	7550.70				
				supplier	Solder ball	Copper (Cu)	7440-50-8		0.035	mg	5000	943.84				
Repassivation polymer (LTC9320)		0.884	mg	supplier	Repassivation polymer	Other polyamide resin	Proprietary		0.884	mg	1000000	23678.31				
RDL metallization (Ti)		0.029	mg	supplier	Runner/UBM (Metal Sputter)	Titanium (Ti)	7440-32-6		0.029	mg	1000000	786.68				
RDL metallization (Cu)		0.116	mg	supplier	Runner/UBM (Metal Sputter)	Copper (Cu)	7440-50-8		0.116	mg	1000000	3098.32				
UBM metallization (Ti)		0.015	mg	supplier	Runner/UBM (Metal Sputter)	Titanium (Ti)	7440-32-6		0.015	mg	1000000	393.34				
UBM metallization (Cu)		0.058	mg	supplier	Runner/UBM (Metal Sputter)	Copper (Cu)	7440-50-8		0.058	mg	1000000	1549.16				
RDL Copper		2.140	mg	supplier	RDL Copper	Copper (Cu)	7440-50-8		2.140	mg	1000000	57318.97				
UBM Copper		2.400	mg	supplier	UBM Copper	Copper (Cu)	7440-50-8		2.400	mg	1000000	64290.19				