



Materials Declaration Form


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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2021-12-01
Company Unique ID	NL 008751171B01		
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 MD CHAMPION	Representative Title	MDG MD 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
Legal Statement	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32L452CET6	715B*462XXXY	A	998Z	2021-12-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	179.63	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 Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	Tin (Sn), immersion	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	7x7x1.4	48	L Bend	
Comment	Package : 5B LQFP 48 7x7x1.4 1 0110596			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : REACH-25th June 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

Material Composition Declaration :						Mfr Item Name	715B*462XXY				6000000.0	999984.8
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	11.121	mg	supplier	die	Silicon (Si)	7440-21-3		10.697	mg	961874	59550
				supplier	metallization	Aluminium (Al)	7429-90-5		0.020	mg	1798	111
				supplier	metallization	Copper (Cu)	7440-50-8		0.180	mg	16186	1002
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.058	mg	5215	323
				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	180	11
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	180	11
				supplier	Passivation	Silicon Nitride	12033-89-5		0.046	mg	4136	256
				supplier	Passivation	Silicon Oxide	7631-86-9		0.116	mg	10431	646
				supplier	Metals	Silver	7440-22-4		1.214	mg	815000	6758
				Glue epoxy_3230_henkel	M-011 Other inorganic materials	1.490	mg	Supplier	Plastics/polymers	2,2'-(Methylenebis(phenyleneoxymethylene))	39817-09-9	
Supplier	Organic Compounds	Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7						0.045	mg	30000	249
Supplier	Organic Compounds	Epoxy resin	Proprietary						0.045	mg	30000	249
Supplier	Organic Compounds	Dodecyclohexane	3234-28-4						0.045	mg	30000	249
Supplier	Organic Compounds	Hexahydromethylphthalic anhydride	25550-51-0						0.045	mg	30000	249
Supplier	Organic Compounds	Epoxy resin modifier	Proprietary						0.045	mg	30000	249
Supplier	Metallic compounds	Copper oxide	1317-38-0						0.007	mg	5000	41
Supplier	Plastics/polymers	Epoxy Resin A	Trade Secret						2.401	mg	21000	13364
Supplier	Plastics/polymers	Epoxy Resin B	Trade Secret						2.401	mg	21000	13364
Supplier	Plastics/polymers	Phenol Resin	Trade Secret						6.402	mg	56000	35638
Encapsulation_eme-g631shq_sumitomo	M-011 Other inorganic materials	114.315	mg	Supplier	Glass	Silica(Amorphous)A	60676-86-0		89.217	mg	780450	496673
				Supplier	Glass	Silica(Amorphous)B	7631-86-9		13.183	mg	115320	73389
				Supplier	Non-metals	Carbon Black	1333-86-4		0.712	mg	6230	3965
				Supplier	Metals	Gold	7440-57-5		0.616	mg	1000000	3429
Wire_Auha3_Heraeus	Bonding Wire	0.616	mg	Supplier	Metals	Tin	7440-31-5		1.078	mg	1000000	6003
Plating Anode_Pure Tin_Asahi	M-011 Other inorganic materials	1.078	mg	Supplier	Metals	Copper	7440-50-8		49.589	mg	972200	276064
Leadframe_C194+Ag_Hds	Copper & its alloys	51.007	mg	Supplier	Metals	Iron (Fe)	7439-89-6		1.158	mg	22700	6446
				Supplier	Metals	Zinc (Zn)	7440-66-6		0.077	mg	1500	426
				Supplier	Non-Metals	Phosphorus (P)	7723-14-0		0.015	mg	300	85
				Supplier	Metals	Silver	7440-22-4		0.166	mg	3250	923
	JIG-R			Supplier	Metals	Lead	7439-92-1		0.003	mg	50	14