



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 *	2021-01-25
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 *	marianna grasso	Representative Title	ADG 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
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Legal Statement

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	Mfr Site	Date
STL285N4F7AG	BXY5*OD48Q82	A	3068	2021-01-25
	Amount	UoM	Unit type	ST ECOPACK Grade
	76	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
1	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	DM00440485	

Package Designator	Size	Nbr of instances	Shape	
QFN	6.00,5.00,1.00	8	Flat	
Comment	PowerFLAT 5x6 WF			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 3rd January 2020			
Query			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	0.10	die - leadframe	1316
Lead	4.56	soft solder	59947

QueryList : REACH-19th January 2021				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	4.56	Soft solder	59947
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	4.556	Soft solder	920404

Responsible metals sourcing	
Query	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 :	Gold, Tin, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	BXV5*OD48Q82					
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	M-011 Other inorganic materials	2.903	mg	supplier	die	Silicon(Si)	7440-21-3		2.483	mg	855323	32671
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.164	mg	56493	2158
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.100	mg	34447	1316
				supplier	metallisation	Silver(Ag)	7440-22-4		0.048	mg	16535	632
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.023	mg	7922	303
				supplier	metallisation	Tungsten(W)	7440-33-7		0.041	mg	14123	539
				supplier	metallisation	Vanadium(V)	7440-62-2		0.004	mg	1378	53
				supplier	passivation	Silicon oxide	7631-86-9		0.040	mg	13779	526
Leadframe	M-004 Copper and its alloys	35.996	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		34.874	mg	968830	458868
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.820	mg	22780	10789
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		0.049	mg	1361	645
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.043	mg	1195	566
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.210	mg	5834	2763
Soft solder	Solder	4.950	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	4.556	mg	920404	59947
				supplier	solder	Tin(Sn)	7440-31-5		0.246	mg	49697	3237
				supplier	solder	Silver(Ag)	7440-22-4		0.123	mg	24848	1618
				supplier	solder	dry flux residue	proprietary		0.025	mg	5051	329
Bonding wires	M-008 Precious metals	0.096	mg	supplier	wire	Gold(Au)	7440-57-5		0.096	mg	1000000	1263
Encapsulation	M-011 Other inorganic materials	12.355	mg	supplier	mold compound	Silica vitreous	60676-86-0		9.699	mg	785027	127618
				supplier	mold compound	Epoxy type resin	proprietary		1.606	mg	129987	21132
				supplier	mold compound	Phenolic resin	9003-35-4		0.741	mg	59976	9750
				supplier	mold compound	Metal hydroxide	proprietary		0.247	mg	19992	3250
				supplier	mold compound	Carbon black	1333-86-4		0.062	mg	5018	816
connections coating	Solder	0.025	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.025	mg	1000000	329
Clip		19.675	mg	supplier	ceramic	Copper(Cu)	7440-50-8		19.671	mg	999797	258829
				supplier	metallization	Silver(Ag)	7440-22-4		0.004	mg	203	53