



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 *	2018-12-20
Company Unique ID	NL 008751171801		
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 *	Rossana Bonaccorso	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

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
STL110N10F7	BSER*OD0TJ52	A	3068	2018-12-20
Amount	UoM	Unit type	ST ECOPACK Grade	
100.00	mg	Each	ECOPACK2	
	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	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5-6-0.8	12	Flat	
Comment	Power FLAT 5x6 8L SINGLE			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by 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 2017/2096 _November 2017	
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 25th May 2018			
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	0.09	Die	900
Lead	7.06	Soft solder	70580

QueryList : REACH-27th June 2018				
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	7.06	Soft solder	70580
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	7.06	Soft solder	924912

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BSER*OD07I52					
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	6.204	mg	supplier	die	Silicon (Si)	7440-21-3		5.852	mg	943262	58520
				supplier	metallization	Aluminium (Al)	7429-90-5		0.136	mg	21921	1360
				supplier	metallization	Nickel (Ni)	7440-02-0		0.034	mg	5480	340
				supplier	metallization	Silver (Ag)	7440-22-4		0.020	mg	3224	200
				supplier	metallization	Titanium (Ti)	7440-32-6		0.015	mg	2419	150
				supplier	metallization	Tungsten (W)	7440-33-7		0.034	mg	5480	340
				supplier	Passivation	Silicon Oxide	7631-86-9		0.033	mg	5319	330
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	645	40
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.056	mg	9026	560
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.020	mg	3224	200
Leadframe	M-004 Copper and its alloys	49.734	mg	supplier	alloy	Copper (Cu)	7440-50-8		48.971	mg	984658	489710
				supplier	alloy	Iron (Fe)	7439-89-6		0.049	mg	985	490
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.015	mg	302	150
				supplier	metallization	Silver (Ag)	7440-22-4		0.699	mg	14055	6990
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high met	7.058	mg	924912	70580
Soft solder	Solder	7.631	mg	JIG - R	solder	Tin (Sn)	7440-31-5		0.191	mg	25029	1910
				supplier	solder	Silver (Ag)	7440-22-4		0.382	mg	50059	3820
				supplier	wire	Gold (Au)	7440-57-5		0.116	mg	1000000	1160
Encapsulation	M-011 Other inorganic materials	27.732	mg	supplier	mold compound	Silica, vitreous	60676-86-0		25.680	mg	926006	256800
				supplier	mold compound	epoxy resin	85954-11-6		1.109	mg	39990	11090
				supplier	mold compound	phenol resin	26834-02-6		0.832	mg	30001	8320
				supplier	mold compound	carbon black	1333-86-4		0.111	mg	4003	1110
Connections coating	Solder	0.149	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.149	mg	1000000	1490
Clip		8.434	mg	supplier	alloy	Copper (Cu)	7440-50-8		8.434	mg	1000000	84340