



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D <i>* : Required Field</i>

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-10-22
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 *	Giovanni Giacopello	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
STL180N6F7	BSER*OD6GR82	A	3068	2018-10-22
	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	0.11	Die	1080
Lead	6.38	Soft solder	63780

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	6.378	Soft solder	63780
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	6.378	Soft solder	925018

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BSER*OD6GR82									
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	2.241	mg	supplier	die	Silicon (Si)	7440-21-3		1.912	mg	853191	19120				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.095	mg	42393	950				
				supplier	metallization	Nickel (Ni)	7440-02-0		0.063	mg	28112	630				
				supplier	metallization	Silver (Ag)	7440-22-4		0.019	mg	8478	190				
				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	8478	190				
				supplier	metallization	Tungsten (W)	7440-33-7		0.032	mg	14279	320				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	13833	310				
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	1785	40				
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.045	mg	20080	450				
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.003	mg	1339	30				
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	8032	180				
				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				
Soft solder	Solder	6.895	mg	JIG- R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	6.378	mg	925018	63780				
				supplier	solder	Tin (Sn)	7440-31-5		0.172	mg	24946	1720				
				supplier	solder	Silver (Ag)	7440-22-4		0.345	mg	50036	3450				
Bonding wires	M-008 Precious metals	0.116	mg	supplier	wire	Gold (Au)	7440-57-5		0.116	mg	1000000	1160				
Encapsulation	M-011 Other inorganic materials	32.431	mg	supplier	mold compound	Silica, vitreous	60676-86-0		30.031	mg	925996	300310				
				supplier	mold compound	epoxy resin	85954-11-6		1.297	mg	39993	12970				
				supplier	mold compound	phenol resin	26834-02-6		0.973	mg	30002	9730				
				supplier	mold compound	carbon black	1333-86-4		0.130	mg	4009	1300				
connections coating	Solder	0.149	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.149	mg	1000000	1490				
Clip	M-004 Copper and its alloys	8.434	mg	supplier	alloy	Copper (Cu)	7440-50-8		8.434	mg	1000000	84340				