



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 *	2018-10-19
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
STL28N60DM2	S8CH*FQ66B6V	A	Z4XA	2018-10-19
	Amount	UoM	Unit type	ST ECOPACK Grade
	180.00	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	8.0,8.0,0.8	4	flat	
Comment	Package: Power FLAT MLPD 8x8 4L			

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	522
Lead	9.34	Soft solder	51883

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	9.34	Soft solder	51883
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	9.34	Soft solder	955006

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	S8CH*FQ66B6V					
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	10.432	mg	supplier	die	Silicon (Si)	7440-21-3		9.862	mg	945360	54789
				supplier	metallization	Aluminium (Al)	7429-90-5		0.274	mg	26265	1522
				supplier	Passivation	Silicon Nitride	12033-89-5		0.065	mg	6231	361
				supplier	Passivation	Silicon Oxide	7631-86-9		0.097	mg	9298	539
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	672	39
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.094	mg	9011	522
Leadframe	Copper & its alloys	79.730	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.033	mg	3163	183
				supplier	alloy	Copper (Cu)	7440-50-8		77.014	mg	965935	427856
				supplier	alloy	Iron (Fe)	7439-89-6		1.798	mg	22551	9989
				supplier	alloy	Phosphorus (P)	12185-10-3		0.020	mg	251	111
				supplier	alloy	Zinc (Zn)	7440-66-6		0.101	mg	1267	561
Soft solder	Solder	9.779	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	9.339	mg	955006	51883
				supplier	solder	Silver (Ag)	7440-22-4		0.245	mg	25054	1361
				supplier	solder	Tin (Sn)	7440-31-5		0.195	mg	19940	1085
				supplier	metallization	Silver (Ag)	7440-22-4		0.797	mg	9996	4428
Bonding wire	Other inorganic materials	0.438	mg	supplier	wire	Copper (Cu)	7440-50-8		0.438	mg	1000000	2433
				supplier	solder	Silver (Ag)	7440-22-4		0.245	mg	25054	1361
Encapsulation	Other Organic Materials	75.004	mg	supplier	mold compound	Silica Fused	60676-86-0		70.281	mg	937030	390450
				supplier	mold compound	Epoxy Resin	25068-38-6		2.249	mg	29985	12494
				supplier	mold compound	Phenol resin	29690-82-2		2.249	mg	29985	12494
				supplier	mold compound	Carbon Black	1333-86-4		0.225	mg	3000	1250
Connection coating	Solder	4.617	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.617	mg	1000000	25650