



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 *	2019-01-29
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
STPS3045DJF-TR	RFER*Z82S155	A	Z8GA	2019-01-29
	Amount	UoM	Unit type	ST ECOPACK Grade
	90	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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	5-6-0.8	12	flat	
Comment	Package: 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 26th October 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	0.07	Die	811
Lead	2.89	Soft solder	32089

QueryList : REACH-15th January 2019				
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	2.89	soft solder	32089
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	2.89	soft solder	854944

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	RFER*Z82515S					
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	5.045	mg	supplier	die	Silicon (Si)	7440-21-3		4.567	mg	905342	50744
				supplier	metallization	Aluminium (Al)	7429-90-5		0.265	mg	52532	2944
				supplier	passivation	Nickel (Ni)	7440-02-0		0.029	mg	5749	322
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1189	67
				supplier	metallization	Tungsten (W)	7440-33-7		0.010	mg	1982	111
				supplier	Passivation	Silicon Oxide	7631-86-9		0.039	mg	7733	433
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	595	33
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	1784	100
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.044	mg	8722	489
				supplier	polymer die coating	Durimide	Proprietary		0.073	mg	14372	809
Leadframe	Copper and its alloy	32.246	mg	Supplier	alloy	Copper(CU)	7440-50-8		31.418	mg	974322	349089
				Supplier	alloy	Iron(Fe)	7439-89-6		0.758	mg	23507	8422
				Supplier	alloy	Phosphorus(P)	7723-14-0		0.027	mg	838	300
				Supplier	alloy	Zinc(Zn)	7440-66-6		0.040	mg	1240	444
				Supplier	alloy	Silver(Ag)	7440-22-4		0.003	mg	93	33
Die Attach	Other Organic Material	3.378	mg	Supplier	solder	Tin(Sn)	7440-31-5		0.067	mg	19834	750
				Supplier	solder	Silver(Ag)	7440-22-4		0.086	mg	25459	956
				Supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.888	mg	854944	32089
				Supplier	solder	dry flux residue	Proprietary		0.337	mg	99763	3744
				Supplier	ribbon	Aluminium (Al)	7429-90-5		1.661	mg	1000000	18456
Encapsulation	Other Organic Material	45.237	mg	Supplier	mold compound	silica vitreous	60676-86-0		40.035	mg	885006	444833
				Supplier	mold compound	Biphenyl epoxy resin	85954-11-6		2.397	mg	52988	26633
				Supplier	mold compound	Phenol Resin	205830-20-2		1.810	mg	40011	20111
				Supplier	mold compound	epoxy resin	25068-38-6		0.904	mg	19984	10044
				Supplier	mold compound	carbon black	1333-86-4		0.091	mg	2011	1011
Connections coating	Other Inorganic Material	2.433	mg	Supplier	solder alloy	Tin(Sn)	7440-31-5		2.433	mg	1000000	27033