



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 *	2017-10-20
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
STL210N4F7AG	BSY5*OD4FQ82	A	SH1A	2017-10-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	100	mg	Each	ECOPACK® 2

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	6, 5, 1	8	flat	
Comment	Package: PowerFLAT 5x6 WF			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 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 : California Prop65 list, dated 7th July 2017			
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	660
Lead	11.88	solder	118760

QueryList : REACH-7th July 2017				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BSY5*OD4FQ82					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	1.954	mg	supplier	die	Silicon (Si)	7440-21-3		1.662	mg	850563	16620
				supplier	metallization	Aluminium (Al)	7429-90-5		0.110	mg	56295	1100
				supplier	passivation	Nickel (Ni)	7440-02-0		0.027	mg	13818	270
				supplier	metallization	Silver (Ag)	7440-22-4		0.016	mg	8188	160
				supplier	metallization	Titanium (Ti)	7440-32-6		0.012	mg	6142	120
				supplier	metallization	Tungsten (W)	7440-33-7		0.028	mg	14330	280
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	5629	110
				supplier	Passivation	Silicon Oxide	7631-86-9		0.027	mg	13818	270
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	1535	30
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.039	mg	19959	390
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.003	mg	1535	30
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.016	mg	8188	160
				Leadframe	Copper and its alloys	46.478	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						1.058	mg	22763	10580
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.064	mg	1377	640
supplier	alloy	Zinc (Zn)	7440-66-6						0.055	mg	1184	550
supplier	metallization	Silver (Ag)	7440-22-4						0.307	mg	6605	3070
supplier	metallization	Lead (Pb)	7439-92-1					7a-Lead in high me	11.876	mg	925282	118760
Soft solder	Solder	12.835	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	11.876	mg	925282	118760
				supplier	solder	Silver (Ag)	7440-22-4		0.320	mg	24932	3200
				supplier	solder	Tin (Sn)	7440-31-5		0.639	mg	49786	6390
Bonding wires	Other inorganic materials	0.058	mg	supplier	wire	Gold (Au)	7440-57-5		0.058	mg	1000000	580
Encapsulation	Other inorganic materials	30.714	mg	supplier	mold compound	Silica, vitreous	60676-86-0		24.110	mg	784984	241100
				supplier	mold compound	epoxy resin	25068-38-6		3.993	mg	130006	39930
				supplier	mold compound	phenol resin	9003-35-4		1.843	mg	60005	18430
				supplier	mold compound	metal hydroxide	21645-51-2		0.614	mg	19991	6140
				supplier	mold compound	Carbon black	1333-86-4		0.154	mg	5014	1540
Connections coating	Solder	0.156	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.156	mg	1000000	1560
Subelement	Other inorganic materials	7.805	mg	supplier	Clip	Copper (Cu)	7440-50-8		7.805	mg	1000000	78050