



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 *	2018-04-20
Contact Name *	Refer to "Supplier Comment" section	Contact Title	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
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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
STL19N3LLH6AG	R1Y5*6L30AC2	A	SH1A	2018-04-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	90.00	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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6, 5, 1	8	pin	
Comment	Package: PowerFLAT 5x6 WF			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	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 : REACH-15th January 2018				
Query				Response
The product 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						Mfr Item Name	R1Y5*6L30AC2					
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	0.59	mg	supplier	die	Silicon (Si)	7440-21-3		0.564	mg	955932	6267
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	11864	78
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1695	11
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.003	mg	5085	33
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.008	mg	13559	89
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.005	mg	8475	56
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.002	mg	3390	22
Leadframe	Copper & its alloys	44.344	mg	supplier	alloy	Copper (Cu)	7440-50-8		42.892	mg	967256	476578
				supplier	alloy	Iron (Fe)	7439-89-6		1.009	mg	22754	11211
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.061	mg	1376	678
				supplier	alloy	Zinc (Zn)	7440-66-6		0.053	mg	1195	589
				supplier	metallization	Nickel (Ni)	7440-02-0		0.327	mg	7374	3633
				supplier	metallization	Phosphorus (P)	12185-10-3		0.002	mg	45	22
				supplier	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.686	mg	955432
Soft solder	Solder	0.718	mg	supplier	solder	Silver (Ag)	7440-22-4		0.018	mg	25069	200
				supplier	solder	Tin (Sn)	7440-31-5		0.014	mg	19499	156
				supplier	wire & ribbon	Aluminium (Al)	7429-90-5		0.531	mg	1000000	5900
Encapsulation	Other inorganic materials	43.661	mg	supplier	mold compound	Silica, vitreous	60676-86-0		34.273	mg	784980	380811
				supplier	mold compound	epoxy resin	25068-38-6		5.676	mg	130002	63067
				supplier	mold compound	phenol resin	9003-35-4		2.62	mg	60008	29111
				supplier	mold compound	metal hydroxide	21645-51-2		0.873	mg	19995	9700
				supplier	mold compound	Carbon black	1333-86-4		0.219	mg	5015	2433
Connections coating	Solder	0.156	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.156	mg	1000000	1733