



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 *	2017-03-06
Contact Name *	Refer to Supplier Comment section	Authorized Representative *	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
STB47N60DM6AG	XLD2*PQ6LA62	A	3068	2017-03-06
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	gull wing	
Comment	D2PAK			

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)

Query : California Prop65 list, dated 27th January 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	0.23	die backside metal - leadframe metal	168
Lead	19.57	soft solder	14179
Antimony trioxide	6.72	mold compound	4870

QueryList : REACH-12th January 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	XLD2*PQ6LA62					
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	17.192	mg	supplier	die	Silicon (Si)	7440-21-3		16.216	mg	943229	11751
				supplier	metallization	Aluminium (Al)	7429-90-5		0.423	mg	24604	307
				supplier	metallization	Copper (Cu)	7440-50-8		0.156	mg	9074	113
				supplier	metallization	Silver (Ag)	7440-22-4		0.055	mg	3199	40
				supplier	metallization	Titanium (Ti)	7440-32-6		0.016	mg	932	12
				supplier	Passivation	Silicon Nitride	12033-89-5		0.097	mg	5642	70
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	465	6
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.011	mg	640	8
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.155	mg	9016	112
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.055	mg	3199	40
Leadframe	Copper & its alloys	778.632	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.770	mg	998893	563601
				supplier	alloy	CopperPosphorous (CuP)	12517-41-8		0.779	mg	1000	564
				supplier	metallization	Nickel (Ni)	7440-02-0		0.077	mg	99	56
				supplier	metallization	Phosphorus (P)	12185-10-3		0.006	mg	8	4
Soft solder	Solder	20.489	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	19.567	mg	955000	14179
				supplier	solder	Silver (Ag)	7440-22-4		0.512	mg	24989	371
				supplier	solder	Tin (Sn)	7440-31-5		0.410	mg	20011	297
Bonding wires	Other inorganic materials	0.906	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.903	mg	996689	654
				supplier	wire	Magnesium (Mg)	7439-95-4		0.003	mg	3311	3
				supplier								
Encapsulation	Other Organic Materials	560.292	mg	supplier	mold compound	Silica, vitreous	60676-86-0		451.595	mg	805999	327243
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		39.220	mg	69999	28420
				supplier	mold compound	Phenol resin	9003-35-4		22.412	mg	40001	16241
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		33.617	mg	59999	24360
				supplier	mold compound	Antimony Trioxide	1309-64-4		6.724	mg	12001	4872
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		3.922	mg	7000	2842
Connections coating	Solder	2.489	mg	supplier	mold compound	Carbon black	1333-86-4		2.802	mg	5001	2030
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804