



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 *	2015-12-11
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD 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	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STB19NF20	TLD2*MM2EB62	A	SHENZHEN B/E	2015-12-11
Amount		UoM	Unit type	ST ECOPACK Grade
1500.00		mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	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	
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
5 - Product(s) is obsolete, no information is available	false
6 - 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 June 2015				
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						Mfr Item Name	TLD2*MM2E62					
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	6.364	mg	supplier	die	Silicon (Si)	7440-21-3		6.145	mg	965588	4097
				supplier	metallization	Aluminium (Al)	7429-90-5		0.025	mg	3928	17
				supplier	Passivation	Silicon Nitride	12033-89-5		0.016	mg	2514	11
				supplier	Passivation	Silicon Oxide	7631-86-9		0.117	mg	18385	78
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	471	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.043	mg	6757	29
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.015	mg	2357	10
Leadframe	Copper & its alloys	779.567	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	997396	518358
				supplier	alloy	Iron (Fe)	7439-89-6		0.358	mg	459	239
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.654	mg	839	436
				supplier	metallization	Nickel (Ni)	7440-02-0		1.012	mg	1298	675
				supplier	metallization	Phosphorus (P)	12185-10-3		0.006	mg	8	4
Soft solder	Solder	6.026	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	5.754	mg	954862	3836
				supplier	solder	Silver (Ag)	7440-22-4		0.151	mg	25058	101
				supplier	solder	Tin (Sn)	7440-31-5		0.121	mg	20080	81
Bonding wires	Other inorganic materials	1.343	mg	supplier	wire	Aluminium (Al)	7429-90-5		1.342	mg	999404	895
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	596	1
Encapsulation	Other Organic Materials	704.211	mg	supplier	mold compound	Silica, vitreous	60676-86-0		616.185	mg	875001	410790
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-b	EC 413-900-7		28.168	mg	39999	18779
				supplier	mold compound	Epoxy Resin	25068-38-6		21.126	mg	30000	14084
				supplier	mold compound	phenol resin	29690-82-2		35.211	mg	50001	23474
				supplier	mold compound	Carbon black	1333-86-4		3.521	mg	5000	2347
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1659