



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 *	2016-03-01
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
STB170NF04	T2D2*MM4JA62	A	SHENZHEN B/E	2016-03-01
Amount		UoM	Unit type	ST ECOPACK Grade
1478.00		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	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-17th December 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	T2D2*MM4JA62					
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	17.668	mg	supplier	die	Silicon (Si)	7440-21-3		17.023	mg	963493	11518
				supplier	metallization	Aluminium (Al)	7429-90-5		0.331	mg	18734	224
				supplier	Passivation	Silicon Nitride	12033-89-5		0.073	mg	4132	49
				supplier	Passivation	Silicon Oxide	7631-86-9		0.092	mg	5207	62
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.008	mg	453	5
				supplier	back side metallization	Gold (Au)	7440-57-5		0.025	mg	1415	17
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.116	mg	6566	78
Leadframe	Copper & its alloys	779.567	mg	supplier	alloy	Copper (Cu)	7440-50-8		777.537	mg	997396	526074
				supplier	alloy	Iron (Fe)	7439-89-6		0.358	mg	459	242
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.654	mg	839	442
				supplier	metallization	Nickel (Ni)	7440-02-0		1.012	mg	1298	685
				supplier	metallization	Phosphorus (P)	12185-10-3		0.006	mg	8	4
Soft solder	Solder	15.705	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	14.998	mg	954982	10147
				supplier	solder	Silver (Ag)	7440-22-4		0.393	mg	25024	266
				supplier	solder	Tin (Sn)	7440-31-5		0.314	mg	19994	212
Bonding wires	Other inorganic materials	2.525	mg	supplier	wire	Aluminium (Al)	7429-90-5		2.524	mg	999683	1708
				supplier	wire	Magnesium (Mg)	7439-95-4		0.001	mg	317	1
Encapsulation	Other Organic Materials	660.046	mg	supplier	mold compound	Silica, vitreous	60676-86-0		531.997	mg	806000	359944
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		46.203	mg	70000	31260
				supplier	mold compound	Phenol resin	9003-35-4		26.402	mg	40000	17863
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		39.603	mg	60000	26795
				supplier	mold compound	Antimony Trioxide	1309-64-4		7.921	mg	12001	5359
				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		4.620	mg	7000	3126
				supplier	mold compound	Carbon black	1333-86-4		3.300	mg	5000	2233
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1684