



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 *	2016-01-14
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		

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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
T1650H-6G	7BD1*166VBM1	A	SHENZHEN B/E	2016-01-14
	Amount	UoM	Unit type	ST ECOPACK Grade
	1380.00	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
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, 10.5, 1.27	3	GULL WING	
Comment	D2PAK CLIP			

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)	
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	

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	78D1*166VBM1					
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	10.321	mg	supplier	die	Silicon (Si)	7440-21-3		8.947	mg	866873	6483
				supplier	metallization	Nickel (Ni)	7440-02-0		0.179	mg	17343	130
				supplier	metallization	Gold (Au)	7440-57-5		0.034	mg	3294	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.051	mg	4941	37
				supplier	back side metallization	Gold (Au)	7440-57-5		0.011	mg	1066	8
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.243	mg	23544	176
				supplier	glass coating	Glass : Aluminium Oxide	1344-28-1		0.072	mg	6976	52
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.784	mg	75962	568
Leadframe	Copper & its alloys	900.740	mg	supplier	alloy	Copper (Cu)	7440-50-8		899.839	mg	999000	652057
				supplier	alloy	CopperPhosphorous (CuP)	12517-41-8		0.901	mg	1000	653
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	8.848	mg	925039	6412
Soft solder	Solder	9.565	mg	supplier	solder	Silver (Ag)	7440-22-4		0.478	mg	49974	346
				supplier	solder	Tin (Sn)	7440-31-5		0.239	mg	24987	173
				supplier	mold compound	Silica, vitreous	60676-86-0		320.291	mg	760001	232095
Encapsulation	Other Organic Materials	421.435	mg	supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		42.986	mg	101999	31149
				supplier	mold compound	Phenol resin	9003-35-4		25.286	mg	60000	18323
				supplier	mold compound	Others	Proprietary		21.072	mg	50001	15270
				supplier	mold compound	Metal hydroxide	21645-51-2		8.429	mg	20001	6108
				supplier	mold compound	Carbon black	1333-86-4		3.371	mg	7999	2443
Connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	4575
Clip	Copper & its alloys	31.625	mg	supplier	alloy	Copper (Cu)	7440-50-8		31.625	mg	1000000	22917