



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 *	2015-02-27
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 *	Giovanni Giacopello	Representative Title	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	8HZG*TWB221G	B	BO2A	2015-02-27
Amount	UoM	Unit type	ST ECOPACK Grade	
98.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SOJ	4.2X3.7X2.37	2	J bend	
Comment	Package: SMB CLIP (SOD 6); MDF valid for SM6T220CA			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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-17th December 2014				
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	8HZG*TWB221G					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	1.874	mg	supplier	die	Silicon (Si)	7440-21-3		1.772	mg	945571	18082
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.025	mg	13340	255
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.01	mg	5336	102
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	534	10
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.007	mg	3735	71
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.017	mg	9072	173
die (s)				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.014	mg	7471	143
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	2668	51
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.023	mg	12273	235
Leadframe	Copper & its alloys	36.276	mg	supplier	alloy	Copper (Cu)	7440-50-8		35.88	mg	989084	366122
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.017	mg	469	173
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.03	mg	827	306
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.347	mg	9566	3541
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.002	mg	55	20
Soft solder	Solder	1.796	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.679	mg	934855	17133
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.027	mg	15033	276
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.09	mg	50111	918
Clip	Other inorganic materials	18.33	mg	supplier	Clip	Copper (Cu)	7440-50-8		18.33	mg	1000000	187041
encapsulation	Other Organic Materials	38.913	mg	supplier	mold compound	Silica, vitreous	60676-86-0		29.574	mg	760003	301776
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		2.335	mg	60006	23827
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.311	mg	7992	3173
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		3.969	mg	101997	40500
encapsulation				supplier	mold compound	Metal hydroxide	Proprietary		0.778	mg	19993	7939
encapsulation				supplier	mold compound	Others	Proprietary		1.946	mg	50009	19857
connections coating	Solder	0.811	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.811	mg	1000000	8276