



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 *	2015-03-26
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 Giacobello	Representative Title	AMS & IPG 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

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
	CSLL*MM2AB6F	A	Z8GA	2015-03-26
Amount	UoM	Unit type	ST ECOPACK Grade	
110.00	mg	Each	ECOPACK® 2	

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

Package Designator	Size	Nbr of instances	Shape	
SOT	0.264,0.248,0.75	2	gull wing	
Comment	Package: SOT 223; MDF valid for STN1NF20			

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	CSL*MM2AB6F						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Silicon Die	Other Inorganic Material	2.253	mg	supplier	die	Silicon (Si)	7440-21-3		2.154	mg	956059	19582	
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.05	mg	22193	455	
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.029	mg	12872	264	
Silicon Die				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	888	18	
Silicon Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1775	36	
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.014	mg	6214	127	
Leadframe	Copper and its alloy	57.966	mg	supplier	alloy	Copper(CU)	7440-50-8		57.187	mg	986561	519882	
Leadframe				supplier	alloy	Iron(Fe)	7439-89-6		0.057	mg	983	518	
Leadframe				supplier	alloy	Phosphorus(P)	12185-10-3		0.017	mg	293	155	
Leadframe				supplier	alloy	Silver(Ag)	7440-22-4		0.705	mg	12162	6409	
Die Attach	Solder	0.418	mg	supplier	Soft solder	Silver(Ag)	7440-22-4		0.011	mg	26316	100	
Die Attach				supplier	Soft solder	Tin(Sn)	7440-31-5		0.008	mg	19139	73	
Die Attach				R	Soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.399	mg	954545	3627	
Bonding wire	Other Inorganic Material	0.137	mg	supplier	Wire	Copper(CU)	7440-50-8		0.137	mg	1000000	1245	
Encapsulation	Other Organic Material	46.432	mg	supplier	Molding compound	Silica Fused	60676-86-0		40.86	mg	879997	371455	
Encapsulation				supplier	Molding compound	Epoxy,Cresol Novolac	29690-82-2		0.696	mg	14990	6327	
Encapsulation				supplier	Molding compound	Phenol Resin	Proprietary		2.322	mg	50009	21109	
Encapsulation				supplier	Molding compound	Epoxy Resin	Proprietary		2.322	mg	50009	21109	
Encapsulation				supplier	Molding compound	Carbon Black	1333-86-4		0.232	mg	4997	2109	
Finishing	Solder	2.794	mg	supplier	Connection Coating	Tin(Sn)	7440-31-5		2.794	mg	1000000	25400	