



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 *	2014-07-16
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 *	Laurent Tosi	Representative Title	MMS MD CHAMPION
Representative Phone *	(+33) 442 685 795	Representative Email *	laurent.tosi@st.com
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/online_tech_support.html		

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
STM32F101ZCT6	X51A*414XXXX	A	9994	30/09/2013
Amount		UoM	Unit type	ST ECOPACK Grade
1318.46		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used or other bulk termination : add in comments	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
QFP	20x20x1.4	144	L bend	
Comment	LQFP 144 20x20x1.4			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
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

QueryList :REACH-20th June 2013				
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	X51A*414XXX					
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	18.051	mg	supplier	die	Silicon (Si)	7440-21-3		17.5	mg	969475	13273
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.051	mg	2825	39
Die				supplier	metallization	Copper (Cu)	7440-50-8		0.051	mg	2825	39
Die				supplier	metallization	Cobalt (Co)	7440-48-4		0.048	mg	2659	36
Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.014	mg	776	11
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.028	mg	1551	21
Die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.034	mg	1884	26
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.325	mg	18005	246
Encapsulation	Other inorganic materials	1041.598	mg	supplier	Mold compound	Silica, vitreous [Fused Silica]	60676-86-0		921.484	mg	884683	698908
Encapsulation				supplier	Mold compound	Epoxy resins	na		31.334	mg	30083	23766
Encapsulation				supplier	Mold compound	Phenolic resins	na		31.334	mg	30083	23766
Encapsulation				supplier	Mold compound	Metal Hydroxide	na		52.224	mg	50138	39610
Encapsulation				supplier	Mold compound	Carbon black	1333-86-4		5.222	mg	5013	3961
Leadframe	Other inorganic materials	251.791	mg	supplier	Alloy	Copper, metal and alloys	7440-50-8		236.218	mg	938151	179162
Leadframe				supplier	Alloy	Iron	7439-89-6		5.932	mg	23559	4499
Leadframe				supplier	Alloy	Phosphorous	7723-14-0		0.074	mg	294	56
Leadframe				supplier	Alloy	Zinc, metal and alloys	7440-66-6		0.297	mg	1180	225
Leadframe				supplier	Coating	Nickel	7440-02-0		9.042	mg	35911	6858
Leadframe				supplier	Coating	Palladium	7440-05-3		0.192	mg	763	146
Leadframe				supplier	Coating	Silver	7440-22-4		0.018	mg	71	14
Leadframe				supplier	Coating	Gold	7440-57-5		0.018	mg	71	14
Die Attach	Other inorganic materials	1.850	mg	supplier	Glue	Resins	na		0.37	mg	200000	281
Die Attach				supplier	Glue	Silver	7440-22-4		1.48	mg	800000	1123
Bonding Wire	Other inorganic materials	4.460	mg	supplier	Bondng Wire	Gold	7440-57-5		4.415	mg	989910	3349
Bonding Wire				supplier	Bondng Wire	Palladium	7440-05-3		0.045	mg	10090	34
Finishing	Other inorganic materials	0.712	mg	supplier	Connection coating	Nickel	7440-02-0		0.629	mg	883427	477
Finishing				supplier	Connection coating	Palladium	7440-05-3		0.037	mg	51966	28
Finishing				supplier	Connection coating	Gold	7440-57-5		0.023	mg	32303	17
Finishing				supplier	Connection coating	Gold	7440-57-5		0.023	mg	32303	17