



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-12-01
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
STM32F101ZGT6	A21A*430XXXA	A	1054	2014-12-01
Amount		UoM	Unit type	ST ECOPACK Grade
1315.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFP	20x20x1.4	144	L bend	
Comment	LQFP 144L BODY 20x20x1.4 FOOT PRINT 2.0			

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-16th December 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	A21A*430XXXA					
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	25.768	mg	supplier	die	Silicon (Si)	7440-21-3		25.064	mg	972679	19060
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.072	mg	2794	55
die (s)				supplier	metallization	Cobalt (Co)	7440-48-4		0.067	mg	2600	51
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.020	mg	776	15
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.039	mg	1514	30
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.047	mg	1824	36
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.459	mg	17813	349
Lead-frame	Other inorganic materials	265.814	mg	supplier	alloy	Copper (Cu)	7440-50-8		255.713	mg	962000	194458
Lead-frame				supplier	alloy	Nickel (Ni)	7440-02-0		7.974	mg	30000	6064
Lead-frame				supplier	alloy	Silicium (Si)	7440-21-3		1.728	mg	6500	1314
Lead-frame				supplier	alloy	Magnesium (Mg)	7439-95-4		0.399	mg	1500	303
Lead-frame Coating	Other inorganic materials	1.404	mg	supplier	coating	Nickel (Ni)	7440-02-0		1.306	mg	930510	993
Lead-frame Coating				supplier	coating	Palladium (Pd)	7440-05-3		0.053	mg	37710	40
Lead-frame Coating				supplier	coating	Gold (Au)	7440-57-5		0.045	mg	31780	34
Die Attach	Other inorganic materials	6.647	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		5.234	mg	787500	3980
Die Attach				supplier	glue or soft solder	Urethane acrylate oligomer	na		0.465	mg	70000	354
Die Attach				supplier	glue or soft solder	Methacrylate	na		0.465	mg	70000	354
Die Attach				supplier	glue or soft solder	Acrylate	na		0.465	mg	70000	354
Die Attach				supplier	glue or soft solder	Methacrylate	na		0.017	mg	2500	13
Wires	Other inorganic materials	5.759	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		5.759	mg	1000000	4380
Encapsulation	Other inorganic materials	1009.600	mg	supplier	Moulding Compound	Solid Epoxy Resin	na		70.001	mg	69335	53233
Encapsulation				supplier	Moulding Compound	Phenol Resin	na		50.001	mg	49525	38023
Encapsulation				supplier	Moulding Compound	Silica, vitreous	60676-86-0		874.598	mg	866282	665093
Encapsulation				supplier	Moulding Compound	Carbon-black	1333-86-4		5.000	mg	4953	3802
Encapsulation				supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		10.000	mg	9905	7605
Finishing	Other inorganic materials	0.009	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.009	mg	930510	7
Finishing				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	37710	0
Finishing				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	31780	0