



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 *	2017-03-02
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 *	Patrick Crudo	Representative Title	MMS MD CHAMPION
Representative Phone *	(+33) 442 688 339	Representative Email *	patrick.crudo@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
STM32L151VDT6	P21L*436XXX	A	9998	2014-09-08
	Amount	UoM	Unit type	ST ECOPACK Grade
	681.44	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	
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	14x14x1.4	100	L bend	
Comment	Package: 1L LQFP 100 14x14x1.4			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
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-12th January 2017				
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	P21L*436XXX					
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	20.389	mg	supplier	die	Silicon (Si)	7440-21-3		19.767	mg	969493	29008
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.055	mg	2698	81
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.182	mg	8926	267
die (s)				supplier	metallization	Tantalum (Ta)	7440-25-7		0.015	mg	736	22
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.027	mg	1324	40
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	49	1
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.048	mg	2354	70
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.294	mg	14420	431
LEADFRAME	Other inorganic materials	155.426	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		147.008	mg	945839	215731
LEADFRAME				supplier	ALLOY	Iron (Fe)	7439-89-6		3.621	mg	23297	5314
LEADFRAME				#N/A	ALLOY	Phosphorous (P)	7723-14-0		0.045	mg	290	66
LEADFRAME				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.181	mg	1165	266
LEADFRAME				supplier	COATING	Nickel (Ni)	7440-02-0		4.431	mg	28509	6502
LEADFRAME				supplier	COATING	Palladium (Pd)	7440-05-3		0.094	mg	605	138
LEADFRAME				supplier	COATING	Gold (Au)	7440-57-5		0.046	mg	296	68
DIE ATTACH	Other inorganic materials	2.904	mg	supplier	GLUE	Silver (Ag)	7440-22-4		2.033	mg	700069	2983
DIE ATTACH				supplier	GLUE	Silica	Proprietary		0.436	mg	150138	640
DIE ATTACH				supplier	GLUE	Epoxy resin A	9003-36-5		0.087	mg	29959	128
DIE ATTACH				supplier	GLUE	Epoxy resin B	Proprietary		0.145	mg	49931	213
DIE ATTACH				supplier	GLUE	Diluent	Proprietary		0.145	mg	49931	213
DIE ATTACH				supplier	GLUE	Hardener	Proprietary		0.058	mg	19972	85
BONDING WIRE	Other inorganic materials	1.534	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.533	mg	999348	2250
BONDING WIRE				supplier	BONDING WIRE	Palladium (Pd)	7440-05-3		0.001	mg	652	1
ENCAPSULATION	Other inorganic materials	500.428	mg	#N/A	MOLDING COMPOUND	Epoxy resin	Trade secret		49.860	mg	99635	73169
ENCAPSULATION				supplier	MOLDING COMPOUND	Silica fused (SiO2)	60676-86-0		420.652	mg	840584	617299
ENCAPSULATION				#N/A	MOLDING COMPOUND	Phenol Resin	Trade secret		27.423	mg	54799	40243
ENCAPSULATION				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		2.493	mg	4982	3658
FINISHING	Other inorganic materials	0.759	mg	supplier	COATING	Nickel (Ni)	7440-02-0		0.739	mg	973650	1084
FINISHING				supplier	COATING	Palladium (Pd)	7440-05-3		0.016	mg	21080	23
FINISHING				supplier	COATING	Gold (Au)	7440-57-5		0.004	mg	5270	6