



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 *	2017-04-09
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	MDG MD CHAMPION	Representative Title	MDG MD 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/web/en/support/support.html		

Uncertainty Statement			
<p>While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.</p>			
Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F101T4U6A STM32F101T4U6ATR	P3ZR*412YYYA	A	9996	2017-04-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	97.00	mg	Each	ECOPACK® 2
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6,6,1	36	No lead	
Comment	Package : ZR VFQFPN 36 6x6x1.0 PITCH 0.50 7185332			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : REACH-12th January 2017				
Query				Response
1 - Product(s) 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	P3ZR*412YYA				7882600.0	0.0
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	6.088	mg	supplier	die	Silicon (Si)	7440-21-3		5.755	mg	945302	59330
				supplier	metallization	Aluminium (Al)	7429-90-5		0.023	mg	3778	237
				supplier	metallization	Copper (Cu)	7440-50-8		0.113	mg	18561	1165
				supplier	metallization	Cobalt (Co)	7440-48-4		0.021	mg	3449	216
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	986	62
				supplier	metallization	Tungsten (W)	7440-33-7		0.012	mg	1971	124
				supplier	Passivation	Silicon Nitride	12033-89-5		0.015	mg	2464	155
				supplier	Passivation	Silicon Oxide	7631-86-9		0.143	mg	23489	1474
SILICON DIE	M-011 Other inorganic materials	7.360	mg	supplier	DIE	Silicon (Si)	7440-21-3		7.360	mg	1000000	74480
LEADFRAME (C194Ag)	Copper and its alloy	46.124	mg	supplier	ALLOY	Copper (Cu)	7440-50-8		44.971	mg	975000	454955
				supplier	ALLOY	Iron (Fe)	7439-89-6		1.084	mg	23500	10966
				supplier	ALLOY	Zinc (Zn)	7440-66-6		0.055	mg	1200	560
				supplier	ALLOY	Phosphorus (P)	7723-14-0		0.014	mg	300	140
LEADFRAME (C194Ag) Coating	M-011 Other inorganic materials	1.016	mg	supplier	COATING	Silver (Ag)	7440-22-4		1.016	mg	1000000	10280
DIE ATTACH (AMK06)	M-011 Other inorganic materials	1.545	mg	supplier	GLUE	Carbocyclic acrylate	Proprietary		0.155	mg	100000	1563
				supplier	GLUE	Silver (Ag)	7440-22-4		1.314	mg	850000	13290
				supplier	GLUE	2-Propenoic acid,2-methyl-,2[(2,3,3a,4,7,7a(or	68586-19-6		0.070	mg	45000	704
				supplier	GLUE	Bis(.alpha.,.alpha.-Dimethylbenzyl)peroxide	80-43-3		0.008	mg	5000	78
BONDING WIRE	M-011 Other inorganic materials	0.007	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		0.007	mg	1000000	66
ENCAPSULATION (EME G700Y)	M-011 Other inorganic materials	32.831	mg	supplier	MOLDING COMPOUND	Epoxy resin	Proprietary		1.946	mg	50000	20619
				supplier	MOLDING COMPOUND	Silica (Amorphous) A	60676-86-0		23.101	mg	750000	-753476
				supplier	MOLDING COMPOUND	Phenol Resin	Proprietary		1.751	mg	45000	18557
				supplier	MOLDING COMPOUND	Silica (Amorphous) B	7631-86-9		5.838	mg	150000	61857
				supplier	MOLDING COMPOUND	Carbon Black	1333-86-4		0.195	mg	5000	2062
FINISHING PLATING (Matte Sn)	M-011 Other inorganic materials	2.030	mg	supplier	COATING	Nickel (Ni)	7440-02-0		2.030	mg	882600	20536