Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-07-31
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

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.

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 omprehensive 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**
STM32F446ZEH6	P0L4*421XXXA	A	9996	2015-06-18
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	70.90	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 termaination : add in comments	NAC	Copper Alloy	**Bulk Solder termination: SOLDERBALL (Sn96.5Ag3.5)**	

Package Designator	Size	Nbr of instances	Shape	
BGA	7x7x0.6	144	flat	
Comment	Package: A0AS UFBGA 7x7x0.60 144L R12sq P0.5mm 8194620			

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 June 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	P0L4*421XXXA					
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	Other inorganic materials	3.871	mg	supplier	die	Silicon (Si)	7440-21-3		2.508	mg	647895	35374
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.047	mg	12142	663
Die or Dies				supplier	metallization	Copper (Cu)	7440-50-8		0.302	mg	78016	4260
Die or Dies				supplier	metallization	Tantalum (Ta)	7440-25-7		0.740	mg	191165	10437
Die or Dies				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	258	14
Die or Dies				supplier	metallization	Tungsten (W)	7440-33-7		0.136	mg	35133	1918
Die or Dies				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.035	mg	9042	494
Die or Dies				supplier	passivation	Silicon Oxide(SiO_2)	7631-86-9		0.102	mg	26350	1439
SUBSTRATE (DS-7409HGB) Core	Other inorganic materials	20.100	mg	supplier	CORE	Organic resin	Trade secret		4.623	mg	230000	65205
SUBSTRATE (DS-7409HGB) Core				supplier	CORE	Other inorganic filler	Trade secret		5.226	mg	260000	73709
SUBSTRATE (DS-7409HGB) Core				supplier	CORE	Glass fiber	65997-17-3		10.251	mg	510000	144584
SUBSTRATE (DS-7409HGB) Solder Ma	Other inorganic materials	4.900	mg	supplier	SOLDERMASK	Organic resin	Trade secret		3.185	mg	650000	44922
SUBSTRATE (DS-7409HGB) Solder Ma				supplier	SOLDERMASK	Inorganic filler	Trade secret		1.715	mg	350000	24189
SUBSTRATE (DS-7409HGB) Cu Plating	Other inorganic materials	5.700	mg	supplier	CU FOIL	Copper (Cu)	7440-50-8		5.700	mg	1000000	80395
SUBSTRATE (DS-7409HGB) Ni Plating	Other inorganic materials	2.500	mg	supplier	NI PLATING	Nickel (Ni)	7440-02-0		2.500	mg	1000000	35261
SUBSTRATE (DS-7409HGB) Au Plating	Other inorganic materials	0.400	mg	supplier	AU PLATING	Gold (Au)	7440-56-7		0.400	mg	1000000	5642
DIE ATTACH (ATB-130U)	Other inorganic materials	0.709	mg	supplier	GLUE	Epoxy resin	Trade secret		0.695	mg	980254	9803
DIE ATTACH (ATB-130U)				supplier	GLUE	Filler	Trade secret		0.014	mg	19746	197
BONDING WIRE (MKE 4N)	Other inorganic materials	1.361	mg	supplier	BONDING WIRE	Gold (Au)	7440-57-5		1.361	mg	1000000	19191
SOLDERBALL (Sn96.5Ag3.5)	Other inorganic materials	4.500	mg	supplier	SOLDERBALL	Tin (Sn)	7440-31-5		4.300	mg	955556	60649
SOLDERBALL (Sn96.5Ag3.5)				supplier	SOLDERBALL	Silver (Ag)	7440-22-4		0.200	mg	44444	2821
ENCAPSULATION (GE-100LFCS)	Other inorganic materials	26.859	mg	supplier	MOLDING COMPOUND	Silica fused (SiO_2)	60676-86-0		23.459	mg	873415	330880
ENCAPSULATION (GE-100LFCS)				supplier	MOLDING COMPOUND	Epoxy resin	Trade secret		3.400	mg	126585	47955