



## Materials Declaration Form

<b>IPC Form Type *</b>	<b>1752</b> Distribute	<b>Version</b>	<b>2</b>
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D <i>* : Required Field</i>

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2015-04-29</b>
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Flavio Di Francesco	<b>Representative Title</b>	AMS Materials Declaration Champion
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**

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**Legal Statement**

<b>Supplier Acceptance *</b>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
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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
	AYNB*A488ARL	A	SA1A	2015-04-29
Amount	UoM	Unit type	ST ECOPACK Grade	
8.07	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	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	
QFN	2 - 2 - 0.6	8	No lead	
Comment	Package:UFSON 2x2x0.6 8 PITCH 0.5; MD valid for TS4881QT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	<b>true</b>
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-17th December 2014			
Query			Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH			<b>true</b>
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application
			ppm in product

Material Composition Declaration						Mfr Item Name	AYNB*A488ARL					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.509	mg	supplier	die	Silicon (Si)	7440-21-3		0.486	mg	954813	60223
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	11788	743
Silicon die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1965	124
Silicon die				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3929	248
Silicon die				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	27505	1735
Leadframe	Copper and its alloy	3.092	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.905	mg	939521	359975
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.016	mg	5175	1983
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.106	mg	34282	13135
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.004	mg	1294	496
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	970	372
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.016	mg	5175	1983
Leadframe				supplier	alloy	Manganese (Mn)	7439-96-5		0.002	mg	647	248
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.036	mg	11643	4461
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	970	372
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	323	124
Die attach	Other inorganic materials	0.238	mg	supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		0.181	mg	760504	22429
Die attach				supplier	glue or tape	Bisphenol F type epoxy resin	9003-36-5		0.03	mg	126050	3717
Die attach				supplier	glue or tape	t-Butyl phenyl glycidyl ether	3101-60-8		0.015	mg	63025	1859
Die attach				supplier	glue or tape	Phenolic resin	9003-35-4		0.008	mg	33613	991
Die attach				supplier	glue or tape	Epoxy silane	Proprietary		0.003	mg	12605	372
Die attach				supplier	glue or tape	Cyanoguanidine	461-58-5		0.001	mg	4202	124
Bonding wire	Precious metals	0.062	mg	supplier	wire	Gold (Au)	7440-57-5		0.062	mg	1000000	7683
encapsulation	Other inorganic materials	4.169	mg	supplier	mold compound	Silica, vitreous	60676-86-0		3.618	mg	867834	448327
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.292	mg	70041	36183
encapsulation				supplier	mold compound	Phenol Resin	26834-02-6		0.125	mg	29983	15489
encapsulation				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene	EC 413-900-7		0.042	mg	10074	5204
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		0.042	mg	10074	5204
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.021	mg	5037	2602
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		0.029	mg	6956	3594