



## 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  * : Required Field

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2017-11-27</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>	Patrick Crudo	<b>Representative Title</b>	MMS MD CHAMPION
<b>Representative Phone *</b>	(+33) 442 688 339	<b>Representative Email *</b>	<a href="mailto:patrick.crudo@st.com">patrick.crudo@st.com</a>
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/online_tech_support.html">http://www.st.com/web/en/support/online_tech_support.html</a>		

**Uncertainty Statement**

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**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 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
STM8AF6226TASSSX	9F5V*79BX14W	A	959	2017-11-27
	Amount	UoM	Unit type	ST ECOPACK Grade
	180.00	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	7x7x1.4	32	L bend	
Comment	LQFP 32 7x7x1.4 FOOT PRINT 1.0			

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-20th June 2016				
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	9FSV*79BX14W					
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)	M-011 Other inorganic materials	4.501	mg	supplier	die	Silicon (Si)	7440-21-3		4.364	mg	969562	24244
				supplier	metallization	Aluminium (Al)	7429-90-5		0.012	mg	2666	67
				supplier	metallization	Copper (Cu)	7440-50-8		0.040	mg	8887	222
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.003	mg	667	17
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1333	33
				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.011	mg	2444	61
				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.065	mg	14441	361
Lead-frame	M-011 Other inorganic materials	69.913	mg	supplier	alloy	Copper (Cu)	7440-50-8		67.256	mg	962000	373644
				supplier	alloy	Iron (Fe)	7439-89-6		2.097	mg	30000	11652
				supplier	alloy	Zinc (Zn)	7440-66-6		0.454	mg	6500	2525
				supplier	alloy	Iron Phosphide (Fe2P)	1310-43-6		0.105	mg	1500	583
Lead-frame Coating	M-011 Other inorganic materials	0.403	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.369	mg	914840	2048
				supplier	coating	Palladium (Pd)	7440-05-3		0.012	mg	29660	66
				supplier	coating	Gold (Au)	7440-57-5		0.011	mg	27750	62
				supplier	coating	Silver (Ag)	7440-22-4		0.011	mg	27750	62
Die Attach	M-011 Other inorganic materials	1.044	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		0.804	mg	770000	4468
				supplier	glue or soft solder	Epoxy Cresol Novolak	29690-82-2		0.236	mg	226000	1311
				supplier	glue or soft solder	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.004	mg	4000	23
Wires	M-011 Other inorganic materials	0.645	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.645	mg	1000000	3581
Encapsulation	M-011 Other inorganic materials	103.492	mg	supplier	Moulding Compound	Solid Epoxy Resin	Proprietary		7.253	mg	70087	40297
				supplier	Moulding Compound	Phenol Resin	Proprietary		5.181	mg	50062	28783
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		90.384	mg	873343	502132
				supplier	Moulding Compound	Carbon-black	1333-86-4		0.518	mg	5006	2878
Finishing	M-011 Other inorganic materials	0.003	mg	supplier	Bismuth/Bismuth Compounds	Bismuth	7440-69-9		0.155	mg	1502	864
				supplier	connections coating	Nickel (Ni)	7440-02-0		0.002	mg	914840	13
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	29660	0
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	27750	0
				supplier	connections coating	Silver (Ag)	7440-22-4		0.000	mg	27750	0