



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 *	2015-12-22
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 *	Flavio Di Francesco	Representative Title	AMS Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	AYOF*VA18AAJ	A	SA1A	2015-12-22
Amount	UoM	Unit type	ST ECOPACK Grade	
23.470	mg	Each	ECOPACK® 3	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3X3X0.9	16	No lead	
Comment	Package: VFQFPN 3x3x0.9 1.7 16L; MD valid for OA4ZHA33Q - TSZ124IQ4T			

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-15 June 2015				
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	AYOF*VA18AAJ						
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	0.812	mg	supplier	die	Silicon (Si)	7440-21-3		0.748	mg	921182	31877	
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	11084	384	
Silicon die				supplier	metallization	Titanium (Ti)	7440-32-6		0.002	mg	2463	85	
Silicon die				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1232	43	
Silicon die				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	3695	128	
Silicon die				supplier	Passivation	Silicon Oxide	7631-86-9		0.018	mg	22167	767	
Silicon die				supplier	glass coating	Glass: Silicon Dioxide	7631-86-9		0.018	mg	22167	767	
Silicon die				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.013	mg	16010	554	
Lead frame	Copper & its alloys	9.504	mg	supplier	Alloy	Copper	7440-50-8		9.181	mg	966014	391264	
Lead frame				supplier	Alloy	Iron	7439-89-6		0.214	mg	22517	9120	
Lead frame				supplier	Alloy	Iron Phosphide(FeP)	26508-33-8		0.002	mg	210	85	
Lead frame				supplier	Alloy	Zinc	7440-66-6		0.012	mg	1263	511	
Lead frame				supplier	Alloy	Silver	7440-22-4		0.095	mg	9996	4049	
Die attach	Other Organic Materials	0.029	mg	supplier	Glue	Silver	7440-22-4		0.023	mg	793103	980	
Die attach				supplier	Glue	Carbocyclic Acrylate	Proprietary		0.003	mg	103448	128	
Die attach				supplier	Glue	Bismaleimide resin	Proprietary		0.001	mg	34483	43	
Die attach				supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.001	mg	34483	43	
Die attach				supplier	Glue	Additive (1~5%)	Proprietary		0.001	mg	34483	43	
Bonding wire	Precious metals	0.194	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.194	mg	1000000	8268	
Encapsulation	Other Organic Materials	12.819	mg	supplier	Molding compound	Silica fused	60676-86-0		12.011	mg	936969	51869	
Encapsulation				supplier	Molding compound	Epoxy resin	Proprietary		0.385	mg	30034	16407	
Encapsulation				supplier	Molding compound	Phenol resin	Proprietary		0.385	mg	30034	16407	
Encapsulation				supplier	Molding compound	Carbon black	1333-86-4		0.038	mg	2964	1619	
Finishing	Other inorganic materials	0.107	mg	supplier	Connection coating	Sn	7440-31-5		0.107	mg	1000000	4560	