



Materials Declaration Form


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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2017-09-04
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG 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		

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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 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
	AYOF*UY43AAA	A	SA1A	2017-09-04
Amount	UoM	Unit type	ST ECOPACK Grade	
23.47	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
ting is used or other bulk terminat	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.9	16	No lead	
Comment	Package:OF VFQFPN 3x3x0.9 1.7 16L; MDF valid for TSX339IQ4T			

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	AYOF*UY43AAA						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Die	Other inorganic materials	1.174	mg	supplier	die	Silicon (Si)	7440-21-3		1.135	mg	966780	48360	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.010	mg	8518	426	
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	852	43	
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	852	43	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.003	mg	2555	128	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.024	mg	20443	1023	
Lead frame	Copper & its alloys	9.504	mg	supplier	Alloy	Copper	7440-50-8		9.036	mg	965901	385002	
				supplier	Alloy	Iron	7439-89-6		0.211	mg	22555	8990	
				supplier	Alloy	Iron Phosphide(FeP)	26508-33-8		0.002	mg	214	85	
				supplier	Alloy	Zinc	7440-66-6		0.012	mg	1283	511	
				supplier	Alloy	Silver	7440-22-4		0.094	mg	10048	4005	
Die attach	Other Organic Materials	0.029	mg	supplier	Glue	Silver	7440-22-4		0.023	mg	793103	980	
				supplier	Glue	Carbocyclic Acrylate	Proprietary		0.003	mg	103448	128	
				supplier	Glue	Bismaleimide resin	Proprietary		0.001	mg	34483	43	
				supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.001	mg	34483	43	
				supplier	Glue	Additive	Proprietary		0.001	mg	34483	43	
Bonding wire	Precious metals	0.191	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.191	mg	1000000	8138	
Encapsulation	Other Organic Materials	12.617	mg	supplier	Molding compound	Silica fused	60676-86-0		11.822	mg	936990	503707	
				supplier	Molding compound	Epoxy resin	29690-82-2		0.379	mg	30039	16148	
				supplier	Molding compound	Phenol resin	25068-38-6		0.379	mg	30039	16148	
				supplier	Molding compound	Carbon black	1333-86-4		0.037	mg	2933	1576	
				supplier	Connection coating	Tin (Sn)	7440-31-5		0.105	mg	1000000	4474	