



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-03-30
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS 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		

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
	A2AA*AU02AAA	A	Z6GA	2018-03-30
Amount	UoM	Unit type	ST ECOPACK Grade	
73	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)		

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	235	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	4x4x1.8	24	flat	
Comment	A0C4 QFN 4x4x1.8 24LD; MDF valid for AIS328DQTR			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : REACH-15th January 2018				
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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	A2AA*AU02AAA				5999999.0	1000028.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	10.127	mg	supplier	die	Silicon (Si)	7440-21-3		9.642	mg	952108	132082
				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	2864	397
				supplier	metallization	Titanium (Ti)	7440-32-6		0.004	mg	395	55
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	296	41
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	1086	151
				supplier	Passivation	Silicon Oxide	7631-86-9		0.081	mg	7998	1110
				JIG - R	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and e	0.321	mg	31697	4397
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.036	mg	3555	493
Leadframe	M-004 Copper and its alloys	12.348	mg	supplier	alloy	Phosphorus (P)	7723-14-0		0.004	mg	324	55
				supplier	alloy	Iron (Fe)	7439-89-6		0.278	mg	22514	3808
				supplier	alloy	Zinc (Zn)	7440-66-6		0.018	mg	1458	247
				supplier	alloy	Copper (Cu)	7440-50-8		11.808	mg	956268	161753
				supplier	coating	Silver (Ag)	7440-22-0		0.240	mg	19436	3288
Die Attach	M-015 Other organic materials	0.347	mg	supplier	glue	Acrylic resin	Proprietary		0.032	mg	92219	438
				supplier	glue	Epoxy resin	29690-82-2		0.182	mg	524496	2493
				supplier	glue	Polydimethylsiloxane with vinyl groups	68083-19-2		0.085	mg	244957	1164
				supplier	glue	Fumed silica	14808-60-7		0.040	mg	115274	548
				supplier	glue	Polydimethylsiloxane with hydrogen groups	68037-59-2		0.007	mg	20173	96
				supplier	glue	platinum compound	Proprietary		0.001	mg	2882	14
Bonding wires	M-008 Precious metals	0.134	mg	supplier	wire	Gold (Au)	7440-57-5		0.134	mg	1000000	1836
Encapsulation	M-015 Other organic materials	49.967	mg	supplier	Molding compound	Epoxy Resin	29690-82-2		2.515	mg	50333	34452
				supplier	Molding compound	Phenol Resin	25068-38-6		2.515	mg	50333	34452
				supplier	Molding compound	Silica Fused	60676-86-0		44.007	mg	880721	602836
				supplier	Molding compound	Carbon Black	1333-86-4		0.176	mg	3522	2411
				supplier	Molding compound	Metal Hydroxide	Proprietary		0.754	mg	15090	10329
Finishing	M-011 Other inorganic materials	0.079	mg	supplier	Connection coating	Tin (Sn)	7440-31-5		0.079	mg	1000000	1082