



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 *	2017-11-29
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	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		

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
	AYXP*UY16CEA	A	Z6HA	2017-11-29
Amount	UoM	Unit type	ST ECOPACK Grade	
8.07	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	
Not Applicable	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x2x0.75	8	flat	
Comment	Package: XP MLPD/DFN 2x2x0.75 8L PITCH 0.5; MDF valid for TSX393IQ2T			

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-7th July 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	AYXP*UY16CEA				5000001.0	1000001.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	0.465	mg	supplier	die	Silicon (Si)	7440-21-3		0.440	mg	946237	54523
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	4301	248
				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	30108	1735
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.009	mg	19355	1115
				supplier	alloy	Copper (Cu)	7440-50-8		1.677	mg	963240	207807
Leadframe	M-004 Copper and its alloys	1.741	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.039	mg	22401	4833
				supplier	alloy	Zinc (Zn)	7440-66-6		0.002	mg	1149	248
				supplier	metallization	Nickel (Ni)	7440-02-0		0.020	mg	11488	2478
	M-008 Precious metals	supplier	metallization	Palladium (Pd)	7440-05-3		0.002	mg	1149	248		
		supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	574	124		
Die attach	M-015 Other organic materials	0.180	mg	supplier	glue	Aluminium oxide	1344-28-1		0.053	mg	294444	6568
				supplier	glue	Diethylene glycol monoethyl ether acetate	112-15-2		0.072	mg	400000	8922
				supplier	glue	Epoxy resin	25068-38-6		0.013	mg	72222	1611
				supplier	glue	Epoxy resin	Proprietary		0.036	mg	200000	4461
				supplier	glue	Aromatic amine	Proprietary		0.006	mg	33333	743
Bonding wires	M-008 Precious metals	0.035	mg	supplier	wire	Gold (Au)	7440-57-5		0.035	mg	1000000	4337
Encapsulation	M-015 Other organic materials	5.649	mg	supplier	mold compound	Silica Fused	60676-86-0		5.284	mg	935387	654771
				supplier	mold compound	Epoxy Resin	29690-82-2		0.174	mg	30802	21561
				supplier	mold compound	Phenol Resin	25068-38-6		0.174	mg	30802	21561
				supplier	mold compound	Carbon Black	1333-86-4		0.017	mg	3009	2107