



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 *	2018-01-09
Company Unique ID	NL 008751171801		
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

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.


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
	RWSX*LE33FC1	A	Z4XA	2018-01-09
Amount	UoM	Unit type	ST ECOPACK Grade	
216.2	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
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	4.64-4.7-3.62	3	Through-hole	
Comment	Package: SX TO 92; MDF valid for LE33CZ-TR			

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	RWSX*LE33FC1				6000002.0	1000011.0
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	2.146	mg	supplier	die	Silicon (Si)	7440-21-2		2.098	mg	977633	9704
				supplier	metallization	Aluminium (Al)	7429-90-5		0.027	mg	12582	125
				supplier	Passivation	Silicon Nitride	12033-89-5		0.009	mg	4194	42
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	5592	56
Leadframe	M-004 Copper and its alloys	97.532	mg	supplier	alloy	Copper (Cu)	7440-50-8		97.432	mg	998975	450657
				supplier	alloy	Phosphorus (P)	7723-14-0		0.030	mg	308	139
				supplier	alloy	Iron (Fe)	7439-89-6		0.070	mg	718	324
Die Attach	M-015 Other organic materials	0.170	mg	supplier	alloy	Silver (Ag)	7440-22-4		0.120	mg	705882	555
				supplier	alloy	Bisphenol F type epoxy resin	9003-36-5		0.034	mg	200000	157
				supplier	alloy	Phenol derivative	proprietary		0.008	mg	47059	37
				supplier	alloy	Di propylene glycol mono methyl ether	34590-94-8		0.008	mg	47059	37
Bonding wires	M-011 Other inorganic materials	1.114	mg	supplier	alloy	Copper (Cu)	7440-50-8		1.114	mg	1000000	5153
Encapsulation	M-015 Other organic materials	113.023	mg	supplier	alloy	Silicone dioxide (Quartz)	14808-60-7		96.069	mg	849995	444352
				supplier	alloy	Cristobalite	14464-46-1		1.124	mg	9945	5199
				supplier	alloy	Epoxy Resin	29690-82-2		11.296	mg	99944	52248
				supplier	alloy	Phenol Resin	25068-38-6		2.247	mg	19881	10393
				supplier	alloy	AntimonyTrioxide	1309-644		1.720	mg	15218	7956
connections coating	Solder	2.217	mg	supplier	alloy	Carbon Black	1333-86-4		0.567	mg	5017	2623
				supplier	alloy	Tin(Sn)	7440-31-5		2.217	mg	1000000	10254