



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 *	2018-10-26
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

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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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
	EBE3*UY36AAA	A	ZY1A	2018-10-26
Amount	UoM	Unit type	ST ECOPACK Grade	
23.71	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	
DSO	3x3x0.86	8	gull wing	
Comment	E3 MSOP/TSSOP 8 BODY3.00 PITCH0.65; MDF valid for TSX7192IST			

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 : ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : REACH-27th June 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	EBE3*UY36AAA				5000000.0	999915.0
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	1.452	mg	supplier	die	Silicon (Si)	7440-21-3		1.391	mg	957989	58667
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	689	42
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	689	42
				supplier	Passivation	Silicon Nitride	12033-89-5		0.005	mg	3444	211
				supplier	Passivation	Silicon Oxide	7631-86-9		0.033	mg	22727	1392
				supplier	polymer die coating	PIIX1 Gamma-butyrolactone	96-48-0		0.021	mg	14463	886
Leadframe	M-004 Copper and its alloys	9.288	mg	supplier	alloy	Copper (Cu)	7440-50-8		8.720	mg	938846	367777
				supplier	alloy	Nickel (Ni)	7440-02-0		0.278	mg	29931	11725
				supplier	alloy	Silicon (Si)	7440-21-3		0.060	mg	6460	2531
				supplier	alloy	Magnesium (Mg)	7439-95-4		0.013	mg	1400	548
				supplier	metallization	Nickel (Ni)	7440-02-0		0.208	mg	22394	8773
				supplier	metallization	Palladium (Pd)	7440-05-3		0.006	mg	646	253
Die attach	M-015 Other organic materials	0.235	mg	supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	323	127
				supplier	glue	Epoxy resin A	9003-36-5		0.024	mg	102128	1012
				supplier	glue	Epoxy resin B	68475-94-5		0.013	mg	55319	548
				supplier	glue	Silver (Ag)	7440-22-4		0.159	mg	676596	6706
				supplier	glue	Lactone	96-48-0		0.013	mg	55319	548
				supplier	glue	Polyoxypropylenediamine	9046-10-0		0.013	mg	55319	548
Bonding wires	M-008 Precious metals	0.071	mg	supplier	glue	2,6-Diglycidyl phenyl allyl ether oligomer	Proprietary		0.013	mg	55319	548
				supplier	wire	Gold (Au)	7440-57-5		0.071	mg	1000000	2995
Encapsulation	M-015 Other organic materials	12.662	mg	supplier	mold compound	Epoxy Resin	29690-82-2		1.157	mg	91376	48798
				supplier	mold compound	Silica fused (SiO2)	60676-86-0		10.605	mg	837545	447280
				supplier	mold compound	Phenol Resin	25068-38-6		0.836	mg	66024	35259
				supplier	mold compound	Carbon Black	1333-86-4		0.064	mg	5054	2699