



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 *	2018-07-02
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
	AVVV*V795AAY	A	ZS1A	2018-07-02
Amount	UoM	Unit type	ST ECOPACK Grade	
16	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	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	
SOT	2.82X1.52X1.25	5	gull wing	
Comment	WV SOT 23 5L; MDF valid for LDK130M18RY			

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-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	AVVV*V795AAY				5000001.0	1000069.0
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	0.334	mg	supplier	die	Silicon (Si)	7440-21-3		0.315	mg	943114	19688
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	11976	250
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	8982	188
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2994	63
				supplier	Passivation	Silicon Oxide	7631-86-9		0.007	mg	20958	438
				supplier	polymer die coating	PIIX1 Gamma-butyrolactone	96-48-0		0.004	mg	11976	250
				supplier	Alloy	Copper (Cu)	7440-50-8		6.928	mg	963293	433000
Leadframe	M-004 Copper and its alloys	7.192	mg	supplier	Alloy	Iron (Fe)	7439-89-6		0.162	mg	22525	10125
				supplier	Alloy	Phosphorus (P)	7723-14-0		0.002	mg	278	125
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.009	mg	1251	563
				supplier	metallization	Nickel (Ni)	7440-02-0		0.083	mg	11541	5188
				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	973	438
				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	139	63
				supplier	Glue	Silver (Ag)	7440-22-4		0.056	mg	811594	3500
Die Attach	M-015 Other organic materials	0.069	mg	supplier	Glue	Carbocyclic Acrylates	proprietary		0.007	mg	101449	438
				supplier	Glue	Bismaleimide resin	35325-39-4		0.002	mg	28986	125
				supplier	Glue	2-preponic acid, 2-methyl (1-10%)	68586-19-6		0.002	mg	28986	125
				supplier	Glue	Additive	proprietary		0.002	mg	28986	125
				supplier	wire	Copper (Cu)	7440-50-8		0.147	mg	980000	9188
Bonding wires	M-004 Copper and its alloys	0.150	mg	supplier	wire	Palladium (Pd)	7440-05-3		0.003	mg	20000	188
				supplier	Molding compound	Epoxy Resin-1	Proprietary		0.248	mg	30039	15500
				supplier	Molding compound	Epoxy Resin-2	29690-82-2		0.248	mg	30039	15500
				supplier	Molding compound	Phenol resin	25068-38-6		0.372	mg	45058	23250
				supplier	Molding compound	Silica	60676-86-0		7.207	mg	872941	450438
Encapsulation	M-015 Other organic materials	8.256	mg	supplier	Molding compound	Carbon Black	1333-86-4		0.016	mg	1938	1000
				supplier	Molding compound	Others	-		0.165	mg	19985	10313
				supplier	Molding compound	Others	-		0.165	mg	19985	10313