



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 *	2018-12-04
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
	9907*0303AC6	A	Z9LA	2018-12-04
Amount	UoM	Unit type	ST ECOPACK Grade	
80	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.9x3.9x1.4	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF valid for TSM103WAIDT			

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	9907*0303AC6				6000000.0	999994.0	
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	4.824	mg	supplier	die	Silicon (Si)	7440-21-3		4.777	mg	990257	59713	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.022	mg	4561	275	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	2280	138	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	2902	175	
				supplier	Alloy	Copper (Cu)	7440-50-8		24.477	mg	963017	305963	
Leadframe	M-004 Copper and its alloys	25.417	mg	supplier	Alloy	Iron (Fe)	7439-89-6		0.635	mg	24983	7938	
				supplier	Alloy	Phosphorus (P)	7723-14-0		0.025	mg	984	313	
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.025	mg	984	313	
					JIG - R	Alloy	Lead (Pb)	7439-92-1		0.001	mg	39	13
				supplier	Alloy	Silver (Ag)	7440-22-4		0.254	mg	9993	3175	
Die attach	M-015 Other organic materials	0.848	mg	supplier	glue	Silver (Ag)	7440-22-4		0.628	mg	740566	7850	
				supplier	glue	Acrylate monomer	61434-04-6		0.153	mg	180425	1913	
				supplier	glue	Acrylate oligomer	Proprietary		0.042	mg	49528	525	
				supplier	glue	Bismaleimide resin	Proprietary		0.017	mg	20047	213	
				supplier	glue	Epoxy resin	26875-67-2		0.008	mg	9434	100	
Bonding wires	M-011 Other inorganic materials	0.566	mg	supplier	wire	Copper (Cu)	7440-50-8		0.549	mg	969965	6863	
				supplier	wire	Palladium (Pd)	7440-05-3		0.017	mg	30035	213	
				supplier	Mold compound	Epoxy Resin 1	29690-82-2		1.042	mg	22006	13025	
Encapsulation	M-015 Other organic materials	47.350	mg	supplier	Mold compound	Epoxy Resin 2	Proprietary		1.042	mg	22006	13025	
				supplier	Mold compound	Epoxy Resin 3	Proprietary		1.042	mg	22006	13025	
				supplier	Mold compound	Phenol Resin	25068-38-6		1.184	mg	25005	14800	
				supplier	Mold compound	Carbon black	1333-86-4		0.047	mg	993	588	
				supplier	Mold compound	Amorphous silica	60676-86-0		41.857	mg	883992	523213	
Finishing	M-011 Other inorganic materials	0.994	mg	supplier	Mold compound	Crystal silica	14808-60-7		1.136	mg	23992	14200	
				supplier	Connection coating	Tin(Sn)	7440-31-5		0.994	mg	1000000	12425	