



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 *	2018-03-16
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
	FZW1*46VBAT3	A	Z6FA	2018-03-16
Amount	UoM	Unit type	ST ECOPACK Grade	
9.5	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.92x1.3x1	4	gull wing	
Comment	W1 SOT 143 - 4L; MDF valid for STM811TW16F			

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 2017/2096 _November 2017	
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-15th January 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	FZW1*46VBAT3				5999999.0	999999.0
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	0.384	mg	Supplier	die	Silicon (Si)	7440-21-3		0.376	mg	979167	39579
				Supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	5208	211
				Supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	2604	105
				Supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	2604	105
				Supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	10417	421
Leadframe	M-004 Copper and its alloys	2.298	mg	Supplier	alloy	Iron (Fe)	7439-89-6		1.344	mg	584856	141474
				Supplier	alloy	Nickel (Ni)	7440-02-0		0.942	mg	409922	99158
				Supplier	alloy	Manganese (Mn)	7439-96-5		0.001	mg	435	105
				Supplier	alloy	Silicon (Si)	7440-21-3		0.007	mg	3046	737
				Supplier	alloy	Phosphorus (P)	7723-14-0		0.001	mg	435	105
				Supplier	alloy	Sulfur (S)	7704-34-9		0.001	mg	435	105
Die attach	M-015 Other organic materials	0.099	mg	Supplier	Epoxy	Silver (Ag)	7440-22-4		0.069	mg	696970	7263
				Supplier	Epoxy	Reaction product: bisphenol-F- β -piclorhydrin	9003-36-5		0.020	mg	202020	2105
				Supplier	Epoxy	1,4-Bis(2,3-epoxypropoxy)butane	2425-79-8		0.005	mg	50505	526
				Supplier	Epoxy	Aromatic amine	Proprietary		0.005	mg	50505	526
				Supplier	Wire	Gold (Au)	7440-57-5		0.400	mg	1000000	42105
Bondung wires	M-008 Precious metals	0.400	mg	Supplier	Wire	Gold (Au)	7440-57-5		0.400	mg	1000000	42105
				Supplier	Molding compound	Epoxy Resin A	Proprietary		0.436	mg	74927	45895
				Supplier	Molding compound	Epoxy R esin B	29690-82-2		0.175	mg	30074	18421
				Supplier	Molding compound	Phenol Resin	25068-38-6		0.175	mg	30074	18421
Encapsulation	M-015 Other organic materials	5.819	mg	Supplier	Molding compound	Carbon Black	1333-86-4		0.032	mg	5499	3368
				Supplier	Molding compound	Silica (Amorphous)	60676-86-0		5.001	mg	859426	526421
				Supplier	Molding compound	Tin (Sn)	7440-31-5		0.500	mg	1000000	52632
Finishing	M-011 Other inorganic materials	0.500	mg	Supplier	Connection Coating	Tin (Sn)	7440-31-5		0.500	mg	1000000	52632