



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 *	2018-07-09
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 *	Rossana Bonaccorso	Representative Title	ADG 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
STGWA50M65DF2	TDWT*KLF7T5F	A	Z8GA	2018-07-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	6100	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	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
RAD	5.15 - 2.6 - 2.6	2	Through-hole	
Comment	Package: TO-247 LONG LEADS			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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 : California Prop65 list, dated 25th May 2018			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	1.27	Die - Leadframe	209

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	TDWT*KL7T5F					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	13.955	mg	supplier	die	Silicon (Si)	7440-21-3		12.025	mg	861698	1971
				supplier	metallization	Aluminium (Al)	7429-90-5		1.389	mg	99534	228
				supplier	Passivation	Silicon Nitride	12033-89-5		0.085	mg	6091	14
				supplier	Passivation	Silicon Oxide	7631-86-9		0.212	mg	15192	35
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.013	mg	932	2
				supplier	back side metallization	Gold (Au)	7440-57-5		0.013	mg	932	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.167	mg	11967	27
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.008	mg	573	1
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.043	mg	3081	7
				supplier	alloy	Copper(CU)	7440-50-8		3986.174	mg	998423	653471
Leadframe	Copper & its alloys	3992.470	mg	supplier	alloy	Iron (Fe)	7439-89-6		3.991	mg	1000	654
				supplier	alloy	Phosphorus(P)	12185-10-3		1.198	mg	300	196
				supplier	metallization	Nickel (Ni)	7440-02-0		1.107	mg	277	181
Solder paste	Solder	3.745	mg	supplier	solder	Tin(Sn)	7440-31-5		2.434	mg	649933	399
				supplier	solder	Silver(Ag)	7440-22-4		0.936	mg	249933	156
				supplier	solder	Antimony	7440-36-0		0.375	mg	100134	61
Bonding wires	Other organic materials	4.885	mg	supplier	wire	Aluminium (Al)	7429-90-5		4.885	mg	1000000	801
Encapsulation	Other organic materials	2046.750	mg	supplier	mold compound	Epoxy resin	29690-82-2		143.272	mg	70000	23487
				supplier	mold compound	Phenol resin	9003-35-4		51.169	mg	25000	8388
				supplier	mold compound	Silica	60676-86-0		1535.065	mg	750001	251650
				supplier	mold compound	Metal hydroxide	21645-51-2		307.011	mg	149999	50330
				supplier	mold compound	Carbon black	1333-86-4		10.233	mg	5000	1678
Finishing	Solder	38.195	mg	supplier	solder alloy	Tin(Sn)	7440-31-5		38.195	mg	1000000	6261