



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 *	2018-02-16
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 *	Giovanni Giacopello	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


While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

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
STW7N105K5	TSLW*VJS3B52	A	3068	2018-02-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	4430	mg	Each	ECOPACK2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	15.75-20.15-5.15	3	Through-hole	
Comment	TO 247			

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	FALSE
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)	TRUE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : California Prop65 list, dated 15th December 2017			
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	0.97	Die - Leadframe	218
Lead	6.89	Soft solder	1556

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
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	TSLW*VJ53852				6000000.0	1000000.0
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	7.731	mg	supplier	die	Silicon (Si)	7440-21-3		7.556	mg	977364	1706
				supplier	metallization	Aluminium (Al)	7429-90-5		0.070	mg	9055	16
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	4010	7
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	517	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.052	mg	6726	12
Leadframe	M-004 Copper and its alloys	2826.184	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.018	mg	2328	4
				supplier	alloy	Copper (Cu)	7440-50-8		2821.522	mg	998350	636912
				supplier	alloy	Iron (Fe)	7439-89-6		2.825	mg	1000	637
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.848	mg	300	191
				supplier	metallization	Nickel (Ni)	7440-02-0		0.915	mg	324	207
Soft solder	Solder	7.219	mg	supplier	metallization	Phosphorus (P)	7723-14-0		0.074	mg	26	17
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	6.894	mg	954980	1556
				supplier	solder	Silver (Ag)	7440-22-4		0.181	mg	25073	41
				supplier	solder	Tin (Sn)	7440-31-5		0.144	mg	19947	33
Bonding wires	M-011 Other inorganic materials	0.804	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.801	mg	996269	181
				supplier	wire	Magnesium (Mg)	7439-95-4		0.003	mg	3731	1
Encapsulation	M-011 Other inorganic materials	1578.766	mg	supplier	mold compound	Silica, vitreous	60676-86-0		1373.526	mg	870000	310051
				supplier	mold compound	Epoxy resin	25068-38-6		157.877	mg	100000	35638
				supplier	mold compound	Phenol resin	29690-82-2		39.469	mg	25000	8909
				supplier	mold compound	Carbon black	1333-86-4		7.894	mg	5000	1782
connections coating	Solder	9.296	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		9.296	mg	1000000	2098