



Materials Declaration Form

IPC	1752	Version	2
Form Type *	Distribute		
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

*: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-05-25
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


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
STD65N55LF3	TXDP*4L5FB62	A	3068	2018-05-25
Amount	UoM	Unit type	ST ECOPACK Grade	
330	mg	Each	ECOPACK2	
	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	
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	6.5-6.1-2.3	3	GULL WING
Comment	TO 252 DPAK		

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	0.14	Die - Leadframe	418
Lead	6.04	Soft solder	18297

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	TXDP*4L5F862					
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	5.498	mg	supplier	die	Silicon (Si)	7440-21-3		5.259	mg	956530	15936
				supplier	metallization	Aluminium (Al)	7429-90-5		0.062	mg	11277	188
				supplier	metallization	Titanium (Ti)	7440-32-6		0.012	mg	2183	36
				supplier	Passivation	Silicon Nitride	12033-89-5		0.029	mg	5273	88
				supplier	Passivation	Silicon Oxide	7631-86-9		0.071	mg	12914	215
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.003	mg	546	9
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.046	mg	8367	139
Leadframe	M-004 Copper and its alloys	165.044	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.016	mg	2910	49
				supplier	alloy	Copper (Cu)	7440-50-8		164.730	mg	998097	499182
				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	1000	500
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.050	mg	304	152
				supplier	metallization	Nickel (Ni)	7440-02-0		0.092	mg	557	279
				supplier	metallization	Phosphorus (P)	7723-14-0		0.007	mg	42	21
				supplier	metallization	Lead (Pb)	7439-92-1	7a-Lead in high mel	6.038	mg	955078	18297
Soft solder	Solder	6.322	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.158	mg	24992	479
				supplier	solder	Tin (Sn)	7440-31-5		0.126	mg	19930	382
				supplier	solder	Aluminium (Al)	7429-90-5		1.005	mg	996036	3045
Bonding wires	M-011 Other inorganic materials	1.009	mg	supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	3964	12
				supplier	wire	Aluminium (Al)	7429-90-5		1.005	mg	996036	3045
				supplier	wire	Magnesium (Mg)	7439-95-4		0.004	mg	3964	12
Encapsulation	M-011 Other inorganic materials	151.082	mg	supplier	mold compound	Silica, vitreous	60676-86-0		132.197	mg	875002	400597
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene bis	EC 413-900-7		6.043	mg	39998	18312
				supplier	mold compound	Epoxy Resin	25068-38-6		4.533	mg	30004	13736
				supplier	mold compound	phenol resin	29690-82-2		7.554	mg	49999	22891
				supplier	mold compound	Carbon black	1333-86-4		0.755	mg	4997	2288
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3167