



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 *	2017-08-30
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giuseppe Vitali Palma	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
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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 omprehensive 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
	TLD2*M5FCB52	A	3068	2017-08-30
Amount	UoM	Unit type	ST ECOPACK Grade	
1380.00	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-9.15-4.5	2	gull wing	
Comment	PACKAGE: D2PAK; MD VALID FOR STB11N65M5, STB8N65M5			

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)

Query : California Prop65 list, dated 27th January 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	0.11	Die back side metal - Leadframe metal	77
Lead	4.02	Soft solder	2913

QueryList : REACH-12th January 2017				
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	TLD2*MSFCB52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	4.452	mg	supplier	die	Silicon (Si)	7440-21-3		4.269	mg	958895	3093
				supplier	metallization	Aluminium (Al)	7429-90-5		0.080	mg	17969	58
				supplier	metallization	Copper (Cu)	7440-50-8		0.029	mg	6515	21
				supplier	metallization	Silver (Ag)	7440-22-4		0.010	mg	2246	7
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	674	2
				supplier	Passivation	Silicon Nitride	12033-89-5		0.018	mg	4043	13
				supplier	Passivation	Silicon Oxide	7631-86-9		0.002	mg	449	1
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.002	mg	449	1
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.029	mg	6514	21
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.010	mg	2246	7
				supplier	back side metallization	Copper (Cu)	7440-50-8		0.010	mg	2246	7
				Leadframe	Copper & its alloys	778.632	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.358	mg	459	259
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.654	mg	840	474
supplier	metallization	Nickel (Ni)	7440-02-0						0.077	mg	99	56
supplier	metallization	Phosphorus (P)	12185-10-3						0.006	mg	8	4
Soft solder	Solder	4.209	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	4.020	mg	955096	2913
				supplier	solder	Silver (Ag)	7440-22-4		0.105	mg	24947	76
				supplier	solder	Tin (Sn)	7440-31-5		0.084	mg	19957	61
Bonding wires	Other inorganic materials	0.774	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.771	mg	996124	559
				supplier	wire	Magnesium (Mg)	7439-95-4		0.003	mg	3876	2
Encapsulation	Other Organic Materials	589.444	mg	supplier	mold compound	Silica, vitreous	60676-86-0		515.764	mg	875001	373742
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-bis	EC 413-900-7		23.578	mg	40000	17086
				supplier	mold compound	Epoxy Resin	25068-38-6		17.683	mg	29999	12814
				supplier	mold compound	phenol resin	29690-82-2		29.472	mg	50000	21357
				supplier	mold compound	Carbon black	1333-86-4		2.947	mg	5000	2136
Connections coating	Solder	2.489	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		2.489	mg	1000000	1804