



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 *	2019-04-16
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


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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
ST50V10100	MAVB*IV5ALI1	A	64BA	2019-04-16
	Amount	UoM	Unit type	ST ECOPACK Grade
	1804	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
3	250	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel/Gold (Ni/Au)	Ceramic		

Package Designator	Size	Nbr of instances	Shape	
DIM	8.89 - 5.59 - 2	2	flat	
Comment	Package: .230 X.360 WIDE 2-L LDMOS W/FLG			

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 26th October 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	36.15	Header	20036
Cobalt	17.22	Header	9547

QueryList : REACH-15th January 2019				
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	MAVB*IVSALI1									
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	1.958	mg	supplier	die	Silicon (Si)	7440-21-3		1.777	mg	907559	985				
				supplier	metallization	Aluminium (Al)	7429-90-5		0.052	mg	26558	29				
				supplier	metallization	Copper (Cu)	7440-50-8		0.001	mg	510	1				
				supplier	Passivation	Silicon Nitride	12033-89-5		0.047	mg	24004	26				
				supplier	Passivation	Silicon Oxide	7631-86-9		0.072	mg	36772	40				
				supplier	back side metallization	Gold (Au)	7440-57-5		0.009	mg	4597	5				
				supplier	Flange	Copper (Cu)	7440-50-8		736.477	mg	460012	408246				
Header	M-010 Ceramics / glass	1601.001	mg	supplier	Flange	Molybdenum (Mo)	7440-57-5		689.269	mg	430524	382078				
				supplier	Ceramic	Alumina (Al2O3)	1344-28-1		63.517	mg	39673	35209				
				supplier	Ceramic	Calcium (Ca)	7440-70-2		1.003	mg	626	556				
				supplier	Ceramic	Magnesium (Mg)	7439-95-4		1.003	mg	626	556				
				supplier	Ceramic	Silicon (Si)	7440-21-3		1.337	mg	835	741				
				supplier	Lead	Iron (Fe)	7439-89-6		31.728	mg	19818	17588				
				supplier	Lead	Nickel (Ni)	7440-02-0		22.976	mg	14351	12736				
				supplier	Solder	Silver (Ag)	7440-22-4		16.776	mg	10478	9299				
				supplier	Solder	Copper (Cu)	7440-50-8		6.524	mg	4075	3616				
				supplier	Plating	Nickel (Ni)	7440-02-0		13.169	mg	8225	7300				
				supplier	Plating	Gold (Au)	7440-57-5		17.222	mg	10757	9547				
				Bonding wires	M-003 Aluminum and its alloys	0.381	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.377	mg	989501	209
								supplier	wire	Silicium (Si)	7440-21-3		0.004	mg	10499	2
Lid	M-010 Ceramics / glass	200.660	mg	supplier	Alumina	Alumina (Al2O3)	1344-28-1		188.779	mg	940790	104645				
				supplier	Alumina	Silicon (Si)	7440-21-3		9.980	mg	49736	5532				
				supplier	Alumina adhesive	Epoxy Resin	25068-38-6		1.901	mg	9474	1054				