



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 *	2018-06-25
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 Giapello	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
TMMDB3	KCCG*DB3T60F	A	9954	2018-06-25
	Amount	UoM	Unit type	ST ECOPACK Grade
	40.00	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	Alloy 42		

Package Designator	Size	Nbr of instances	Shape	
DIP	5.15 - 2.6 - 2.5	2	pin	
Comment	Package: MINIMELF(CB465); MDF valid also for CP: TMMDB3TG; TMMDB3IB			

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	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
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
10a	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)

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			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	9.76	Leadframe	243925
Lead	8.65	Encapsulation	216200
Lead-Borate Glass	0.04	Die	1000

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead monoxide (lead oxide)	1000 ppm	8.61	Encapsulation	215200
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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead monoxide (lead oxide)	1000 ppm	8.61	Encapsulation	8608000

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	KCCG*DB3T60F					
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	0.862	mg	supplier	die	Silicon (Si)	7440-21-3		0.227	mg	263341	5675
				supplier	metallization	Silver (Ag)	7440-22-4		0.041	mg	47564	1025
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1160	25
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.015	mg	17401	375
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.538	mg	624130	13450
				JIG-R & California 65	glass coating	Lead-Borate Glass	65997-18-4	7c-1-Electrical and e	0.040	mg	46404	1000
Leadframe	M-002 Other ferrous alloys, non-stain	23.555	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.314	mg	268053	157850
				supplier	alloy	Iron (Fe)	7439-89-6		7.398	mg	314073	184950
				supplier	alloy	Nickel (Ni)	7440-02-0		9.757	mg	414222	243925
				supplier	alloy	Silicon (Si)	7440-21-3		0.076	mg	3228	1900
				supplier	alloy	Sulfur (S)	7783-06-4		0.005	mg	212	125
				supplier	alloy	Manganese (Mn)	7439-96-5		0.005	mg	212	125
Encapsulation	M-011 Other inorganic materials	14.158	mg	supplier	mold compound	Silica Cristobalite	14464-46-1		4.530	mg	319960	113250
				SVHC	mold compound	Diborontrioxide	1303-86-2		0.425	mg	30018	10625
				JIG - R	mold compound	DiLead oxide	12059-89-1	7c-1-Electrical and e	8.608	mg	607995	215200
				supplier	mold compound	Potassium oxide	12136-45-7		0.566	mg	39977	14150
				supplier	mold compound	Disodium oxide	1313-59-3		0.022	mg	1554	550
				supplier	mold compound	Lithium oxide	12057-24-8		0.007	mg	496	175
connections coating	Solder	1.425	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.425	mg	1000000	35625