



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 *	2019-07-20
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
SMBJ48CA-TR	8HZJ*TWB056D	A	9941	2019-07-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	98	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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	3X3X0.9	2	J bend	
Comment	Package: SMB CLIP (SOD 6 NEW)			

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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)

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	0.02	Die	173
Lead	1.48	Soft solder	15102

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				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	1.48	Soft solder	15102
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	1000 ppm	1.48	Soft solder	925000

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8HZ1*TWB056D					
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	1.623	mg	supplier	die	Silicon (Si)	7440-21-3		1.573	mg	969193	16051
				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	5545	92
				supplier	metallization	Gold (Au)	7440-57-5		0.007	mg	4313	71
				supplier	passivation	Nickel (Ni)	7440-02-0		0.007	mg	4313	71
				supplier	Passivation	Silicon Oxide	7631-86-9		0.009	mg	5546	93
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.006	mg	3697	61
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1232	20
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.010	mg	6161	102
Leadframe & Clip	M-004 Copper and its alloys	39.894	mg	supplier	alloy	Copper (Cu)	7440-50-8		39.874	mg	999499	406878
				supplier	alloy	Iron (Fe)	7439-89-6		0.004	mg	100	41
				supplier	alloy	Phosphorus metal	7723-14-0		0.014	mg	351	143
				supplier	alloy	Zinc (Zn)	7440-66-6		0.002	mg	50	20
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.480	mg	925000	15102
Soft solder	Solder	1.600	mg	SVHC	solder	Tin (Sn)	7440-31-5		0.080	mg	50000	816
				supplier	solder	Silver (Ag)	7440-22-4		0.040	mg	25000	408
				supplier	mold compound	silica fused	7631-86-9		39.305	mg	739998	401071
Encapsulation	M-011 Other inorganic materials	53.115	mg	supplier	mold compound	silica quartz	14808-60-7		10.621	mg	199962	108378
				supplier	mold compound	phenolic resin	9003-35-4		2.657	mg	50024	27112
				supplier	mold compound	carbon black	1333-86-4		0.532	mg	10016	5429
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.768	mg	1000000	18041
connections coating	Solder	1.768	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.768	mg	1000000	18041