



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D <i>* : Required Field</i>

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-02-23
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Giovanni Giacobello	<b>Representative Title</b>	ADG MD CHAMPION
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**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**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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 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
SMAJ15CA-TR	8HSR*TWB018C	A	ZA41	2017-02-23
Amount	UoM	Unit type	ST ECOPACK Grade	
70.00	mg	Each	ECOPACK® 2	

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	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.3 x 2.77 x 2	2	J bend	
Comment	Package: SMA			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	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 21st October 2016			
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	0.01	Die	100
Lead	2.62	Soft solder	37371

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						Mfr Item Name	8HSR*TWB018C					
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	1.231	mg	supplier	die	Silicon (Si)	7440-21-3		1.092	mg	887084	15600
				supplier	metallization	Aluminium (Al)	7429-90-5		0.117	mg	95045	1671
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	8124	143
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.004	mg	3249	57
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	812	14
Leadframe	Copper and its alloy	26.710	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	5686	100
				supplier	alloy	Copper (Cu)	7440-50-8		26.697	mg	999513	381386
				supplier	alloy	Zinc (Zn)	7440-66-6		0.001	mg	38	14
				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	112	43
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	337	130
Soft solder	Solder	2.829	mg	supplier	solder	Silver (Ag)	7440-22-4		0.071	mg	25098	1014
				supplier	solder	Tin (Sn)	7440-31-5		0.142	mg	50194	2029
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high met	2.616	mg	924708	37371
Encapsulation	Other inorganic materials	38.594	mg	supplier	mold compound	Amorphous Silica	7631-86-9		23.783	mg	616236	339757
				supplier	mold compound	Quartz	14808-60-7		7.718	mg	199979	110257
				supplier	mold compound	epoxy resin	25068-38-6		4.631	mg	119993	66157
				supplier	mold compound	phenolic resin	9003-35-4		2.315	mg	59983	33071
				supplier	mold compound	Bismuth trioxide	1304-76-3		0.027	mg	700	386
				supplier	mold compound	chlorine residue	7782-50-5		0.004	mg	103	57
Connections coating	Solder	0.636	mg	supplier	mold compound	Carbon black	1333-86-4		0.116	mg	3006	1657
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.636	mg	1000000	9086