Materials Declaration Form

IPC	**1752**	**Version**	**2**
Form Type *	**Distribute**		
Sectionals *	**Material Info** **Manufacturing Info**	**Subsectionals ***	**A-D** **** : Required Field***

Supplier Information			
Company Name *	**STMicroelectronics**	**Response Date ***	**2020-07-13**
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 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.

Signature Not Verified

Digitally signed by giovanni giacopello
Date: 2020.07.13 14:52:29 +02:00

Product				
Mfr Item Number	**Mfr Item Name**	**Version**	**Mfr Site**	**Date**
SMAJ15A-TR	8YST*TWU018C	A	Z54A	2020-07-13
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	70	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**		
1	260	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	4.14, 2.76, 1.94	2	J bend	
Comment	Package: SMA			

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 3rd January 2020			
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	0.46	Die - Leadframe	6529
Lead	1.06	Soft solder	15157

QueryList : REACH-16th January 2020				
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	1.06	soft solder	15157
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	1.06	soft solder	934802

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						**Mfr Item Name**	**8YST*TWU018C**					
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	1.127	mg	supplier	die	Silicon (Si)	7440-21-3		1.092	mg	968944	15600
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	5324	86
				supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	4437	71
				supplier	passivation	Nickel (Ni)	7440-02-0		0.005	mg	4437	71
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	5324	86
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.004	mg	3549	57
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1774	28
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	6211	100
Leadframe	Copper & its alloys	30.247	mg	supplier	alloy	Copper (Cu)	7440-50-8		29.760	mg	983899	425143
				supplier	alloy	Iron (Fe)	7439-89-6		0.030	mg	992	429
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	298	129
				supplier	metallization	Nickel (Ni)	7440-02-0		0.445	mg	14712	6357
				supplier	metallization	Phosphorus (P)	12185-10-3		0.003	mg	99	43
Soft solder	Solder	1.135	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.061	mg	934802	15157
				supplier	solder	Tin (Sn)	7440-31-5		0.057	mg	50220	814
				supplier	solder	Silver (Ag)	7440-22-4		0.017	mg	14978	243
Encapsulation	Other Organic Materials	25.272	mg	supplier	mold compound	Silica, vitreous	14808-60-7		18.752	mg	742007	267886
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		2.780	mg	110003	39714
				supplier	mold compound	Phenol resin	9003-35-4		3.285	mg	129986	46929
				supplier	mold compound	inorganic flame retardant	21645-51-2		0.253	mg	10011	3614
				supplier	mold compound	Carbon black	1333-86-4		0.202	mg	7993	2886
Connections coating	Solder	0.741	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.741	mg	1000000	10586
Clip	Copper & its alloys	11.478	mg	supplier	alloy	Copper (Cu)	7440-50-8		11.478	mg	1000000	163971