



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-02-09
Company Unique ID	NL 008751171801		
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
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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
SMA4F33A	8HC5*SFU039C	A	BO2A	2018-02-09
Amount	UoM	Unit type	ST ECOPACK Grade	
39	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	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	4.14,2.76,1.94	2	J bend	
Comment	Package: SMA Flat 2 Leads No exposed pad			

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

QueryList : California Prop65 list, dated 15th December 2017			
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	0.33	Die-Leadframe	8462
Lead	1.41	Soft solder	36077

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				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	8HCS*5FU039C					
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	0.943	mg	supplier	die	Silicon (Si)	7440-21-3		0.874	mg	926829	22410
				supplier	metallization	Aluminium (Al)	7429-90-5		0.042	mg	44539	1078
				supplier	passivation	Nickel (Ni)	7440-02-0		0.005	mg	5302	128
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1060	26
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	2121	51
				supplier	Passivation	Silicon Oxide	7631-86-9		0.006	mg	6363	154
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.004	mg	4242	103
				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	2121	51
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	7423	179
				supplier	back side metallization	Copper (Cu)	7440-50-8		24.024	mg	985883	616000
Leadframe	M-004 Copper and its alloys	24.368	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.024	mg	985	615
				supplier	metallization	Nickel (Ni)	7440-02-0		0.318	mg	13050	8154
				supplier	metallization	Phosphorus (P)	7723-14-0		0.002	mg	82	51
				supplier	metallization	Lead (Pb)	7439-92-1		1.407	mg	925049	36077
Soft solder	Solder	1.521	mg	JIG - R	solder	Silver (Ag)	7440-22-4		0.038	mg	24984	974
				supplier	solder	Tin (Sn)	7440-31-5		0.076	mg	49967	1949
				supplier	solder	Silica, vitreous	60676-86-0		9.614	mg	926026	246513
				supplier	mold compound	epoxy resin	85954-11-6		0.415	mg	39973	10641
Encapsulation	M-011 Other inorganic materials	10.382	mg	supplier	mold compound	phenol resin	26834-02-6		0.311	mg	29956	7974
				supplier	mold compound	carbon black	1333-86-4		0.042	mg	4045	1077
				supplier	solder alloy	Tin (Sn)	7440-31-5		0.716	mg	1000000	18359
				supplier	clip	Copper (Cu)	7440-50-8		1.070	mg	1000000	27436
Connections coating	Solder	0.716	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.716	mg	1000000	18359
Clip	M-011 Other inorganic materials	1.070	mg	supplier	clip	Copper (Cu)	7440-50-8		1.070	mg	1000000	27436