



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-11-28
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 *	Rossana Bonaccorso	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
FERD40H100SFP	HTUI*AEV4360	A	3068	2018-11-28
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK2
	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
NA	NA	NA		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10.2-16.15-4.5	3	Through-hole	
Comment	TO 220 ISOL FULL PACK 0.5 AB			

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 25th May 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	0.73	Die - Leadframe	382
Lead	7.69	Soft solder	4047

QueryList : REACH-27th June 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	1000 ppm	7.69	Soft solder	4047
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	7.69	Soft solder	955037

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	HTUI*AEV4360					
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	6.517	mg	supplier	die	Silicon (Si)	7440-21-3		6.190	mg	949824	3258
				supplier	metallization	Aluminium (Al)	7429-90-5		0.036	mg	5524	19
				supplier	metallization	Copper (Cu)	7440-50-8		0.119	mg	18260	63
				supplier	metallization	Titanium (Ti)	7440-32-6		0.092	mg	14117	48
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	613	2
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.051	mg	7826	27
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.004	mg	614	2
				supplier	back side metallization	Silver (Ag)	7440-22-4		0.021	mg	3222	11
Leadframe	M-004 Copper and its alloys	605.984	mg	supplier	alloy	Copper (Cu)	7440-50-8		604.468	mg	997498	318141
				supplier	alloy	Iron (Fe)	7439-89-6		0.605	mg	998	318
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.182	mg	300	96
				supplier	metallization	Nickel (Ni)	7440-02-0		0.674	mg	1112	355
				supplier	metallization	Phosphorus (P)	7723-14-0		0.055	mg	92	29
Soft solder	Solder	8.051	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	7.689	mg	955037	4047
				supplier	solder	Silver (Ag)	7440-22-4		0.201	mg	24965	106
				supplier	solder	Tin (Sn)	7440-31-5		0.161	mg	19998	84
Bonding wires	M-011 Other inorganic materials	9.413	mg	supplier	wire	Aluminium (Al)	7429-90-5		9.413	mg	1000000	4954
Encapsulation	M-011 Other inorganic materials	1264.169	mg	supplier	mold compound	Quartz	14808-60-7		884.917	mg	699999	465746
				supplier	mold compound	Silica, vitreous	60676-86-0		94.813	mg	75000	49902
				supplier	mold compound	Epoxy resin	25068-38-6		176.984	mg	140000	93149
				supplier	mold compound	phenol resin	29690-82-2		88.492	mg	70000	46575
				supplier	mold compound	metal hydroxide	21645-51-2		12.642	mg	10000	6654
				supplier	mold compound	carbon black	1333-86-4		6.321	mg	5001	3327
Connections coating	Solder	5.866	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		5.866	mg	1000000	3087