



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 *	2020-06-11
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
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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
VN5E010AHTR-E	AS95*VH12BFY	A	3068	2020-06-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	290	mg	Each	ECOPACK 1
Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00358887	



Package Designator	Size	Nbr of instances	Shape	
Not Applicable	6.50,6.10,2.30	6	shape	
Comment	TO-252 6 LEADS SMD (HPAK)			

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	0.05	die	186
Lead	3.91	soft solder	13469
Antimony trioxide	0.93	encapsulation	3207

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	3.91	Soft solder	13469
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	3.906	Soft solder	955012

Material Composition Declaration :						Mfr Item Name	AS95*VH12BFY					
note : Substance present with less 0.001mg will not be declared in this document												
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	10.897	mg	supplier	die	Silicon(Si)	7440-21-3		10.234	mg	939158	35291
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.063	mg	5781	217
				supplier	metallisation	Copper(Cu)	7440-50-8		0.084	mg	7709	290
				supplier	metallisation	Gold(Au)	7440-57-5		0.012	mg	1101	41
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.054	mg	4955	186
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.271	mg	24869	934
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.048	mg	4405	166
Leadframe	M-004 Copper and its alloys	197.430	mg	supplier	passivation	Silicon oxide	7631-86-9		0.131	mg	12022	452
				supplier	alloy & coating	Copper(Cu)	7440-50-8		196.904	mg	997335	678979
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.091	mg	461	314
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.166	mg	841	572
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.269	mg	1363	928
Die attach	M-011 Other inorganic materials	0.152	mg	supplier	tape	Epoxy resin	25068-38-6		0.096	mg	631579	331
				supplier	tape	Polypropylene	9003-07-0		0.003	mg	19737	10
				supplier	tape	epoxy resin	29690-82-2		0.015	mg	98684	52
				supplier	tape	Propenoate polymer	538311-13-6		0.030	mg	197368	103
				supplier	tape	Bisphenol A diglycidyl ether	1675-54-3		0.008	mg	52632	28
Soft solder	Solder	4.090	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.906	mg	955012	13469
				supplier	solder	Silver(Ag)	7440-22-4		0.102	mg	24939	352
				supplier	solder	Tin(Sn)	7440-31-5		0.082	mg	20049	283
Encapsulation	M-011 Other inorganic materials	77.431	mg	supplier	mold compound	Silica vitreous	60676-86-0		63.726	mg	823003	219745
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		5.420	mg	69998	18690
				supplier	mold compound	Phenol resin	9003-35-4		3.097	mg	39997	10679
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		2.323	mg	30001	8010
				supplier	mold compound	Antimony trioxide	1309-64-4		0.929	mg	11998	3203
				supplier	mold compound	Brominated epoxy resin	40039-93-8		1.549	mg	20005	5341
				supplier	mold compound	Carbon black	1333-86-4		0.387	mg	4998	1334