



## 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

*\* : Required Field*

<b>Supplier Information</b>			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2020-11-20
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	giovanni giacopello	<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**

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**Legal Statement**

<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
STPS80H100TV	H2DS*Z53P11V	A	64BA	2020-11-20
	Amount	UoM	Unit type	ST ECOPACK Grade
	27000	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		
Not Applicable	Not Applicable	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Nickel (Ni)	Copper Alloy	DM00648879	



Package Designator	Size	Nbr of instances	Shape	
Not Applicable	38.00,8.00,25.00	4	Not Applicable	
Comment	ISOTOP-DBC-R4-VIS			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated 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 2020/363_ March 2020	
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	1184.47	Die - Leadframe - insulator - Nut - Connection isotop - Connection	43869
Lead	187.01	Soft solder	6926

QueryList : REACH-25th June 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	187.01	Soft solder	6926
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	187.009	Soft solder	934998

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tin, Tungsten,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	H2DS*Z53P11V					
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	35.807	mg	supplier	die	Silicon(Si)	7440-21-3		34.204	mg	955233	1267
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.212	mg	5921	8
				supplier	metallisation	Gold(Au)	7440-57-5		0.177	mg	4943	7
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.271	mg	7568	10
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.039	mg	1089	1
				supplier	metallisation	Tungsten(W)	7440-33-7		0.051	mg	1424	2
				supplier	passivation	Silicon oxide	7631-86-9		0.208	mg	5809	8
				supplier	polymer coating	Durimide	proprietary		0.645	mg	18013	24
Leadframe	M-004 Copper and its alloys	8266.763	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		8249.560	mg	997919	305539
				supplier	alloy & coating	Nickel(Ni)	7440-02-0		8.310	mg	1005	308
				supplier	alloy & coating	Phosphorus metal	7723-14-0		8.893	mg	1076	329
Soft solder	Solder	200.010	mg	SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	187.009	mg	934999	6926
				supplier	solder	Tin(Sn)	7440-31-5		10.001	mg	50002	370
				supplier	solder	Silver(Ag)	7440-22-4		3.000	mg	14999	111
Insulator	M-010 Ceramics / glass	190.613	mg	supplier	ceramic	Nickel (Ni)	7440-02-0		2.288	mg	12003	85
				supplier	ceramic	Phosphorus (P)	12185-10-3		0.172	mg	902	6
				supplier	ceramic	Manganese (Mn)	7439-96-5		7.433	mg	38995	275
				supplier	ceramic	Titanium (Ti)	7440-32-6		0.782	mg	4103	29
				supplier	ceramic	Molybdenum oxide	1313-27-5		9.531	mg	50002	353
				supplier	ceramic	Alumina (Al2O3)	1344-28-1		170.407	mg	893995	6311
Screw	M-002 Other ferrous alloys, non-stainless steels	7360.556	mg	supplier	screw	Iron (Fe)	7439-89-6		7360.556	mg	1000000	272613
Nut	M-006 Nickel and its alloys	1061.980	mg	supplier	nut	Nickel (Ni)	7440-02-0		1061.980	mg	1000000	39333
Bonding wires	M-003 Aluminum and its alloys	2.447	mg	supplier	wire	Aluminum(Al)	7429-90-5		2.447	mg	1000000	91
Connection isotop	M-004 Copper and its alloys	4599.883	mg	supplier	connection	Copper (Cu)	7440-50-8		4598.783	mg	999761	170325
				supplier	connection coating	Nickel (Ni)	7440-02-0		1.032	mg	224	38
				supplier	connection coating	Phosphorus (P)	12185-10-3		0.068	mg	15	3
Encapsulation	M-011 Other inorganic materials	5171.350	mg	supplier	mold compound	Silica vitreous	60676-86-0		3619.947	mg	700000	134072
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		801.559	mg	155000	29687
				supplier	mold compound	Quartz	14808-60-7		258.568	mg	50000	9577
				supplier	mold compound	Phenol resin	9003-35-4		310.279	mg	60000	11492
				supplier	mold compound	Metal hydroxide	proprietary		155.140	mg	30000	5746
connections coating	Solder	110.591	mg	supplier	mold compound	Carbon black	1333-86-4		25.857	mg	5000	958
				supplier	solder alloy	Nickel(Ni)	7440-02-0		110.591	mg	1000000	4096