



Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-12-06
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	Representative Title	AMS 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.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
TSV621ICT	HYW8*V621BRL	A	ZS1A	2018-12-06
Amount	UoM	Unit type	ST ECOPACK Grade	
6.00	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	
ing is used or other bulk terminat	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2x1.26x0.93	5	gull wing	
Comment	Package: W8 SOT 323 5LDS			

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	true
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

ELV exemption number	
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

QueryList : REACH-27th Jun 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						Mfr Item Name	HYW8*V621BRL						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Die	Other inorganic materials	1.037	mg	supplier	die	Silicon (Si)	7440-21-3		1.024	mg	987464	170667	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	3857	667	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	964	167	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	7715	1333	
				supplier	alloy	Copper (Cu)	7440-50-8		2.259	mg	971613	376500	
Leadframe	Copper & its alloys	2.325	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.053	mg	22796	8833	
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.004	mg	1720	667	
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1290	500	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.004	mg	1720	667	
				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	430	167	
Die attach	Other Organic Materials	0.060	mg	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	430	167	
				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.005	mg	83333	833	
				supplier	glue	Fused Silica	60676-86-0		0.019	mg	316667	3167	
				supplier	glue	Ethylidiglycol acetate	112-15-2		0.013	mg	216667	2167	
				supplier	glue	Aluminium oxide	1344-28-1		0.012	mg	200000	2000	
Bonding wires	Precious metals	0.051	mg	supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.009	mg	150000	1500	
				supplier	glue	Glycol ether ester	Proprietary		0.001	mg	16667	167	
				supplier	glue	Diaminodiphenylsulfone	80-08-0		0.001	mg	16667	167	
				supplier	wire	Gold (Au)	7440-57-5		0.051	mg	1000000	8500	
				supplier	glue	Silica, vitreous	60676-86-0		2.177	mg	861496	362833	
Encapsulation	Other Organic Materials	2.527	mg	supplier	mold compound	epoxy resin	25060-38-6		0.145	mg	57380	24167	
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.125	mg	49466	20833	
				supplier	mold compound	phenolic resin	29690-82-2		0.075	mg	29679	12500	
				supplier	mold compound	carbon black	1333-86-4		0.005	mg	1979	833	