



## 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
<i>* : Required Field</i>			


Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-09-07
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	ROBERTA BELIGNI	<b>Representative Title</b>	DMA 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**

While STMicroelectronics has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. STMicroelectronics disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. ST shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STUW81300T STUW81300TR	C5ZR*W451BCJ	B	P1C7	2016-09-07
	Amount	UoM	Unit type	ST ECOPACK Grade
	97	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		 life.augmented
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Nickel/Palladium/Gold (Ni/Pd/Au) Tin/Bismuth (SnBi), <5% Bi	Copper Alloy	1F032774	

Package Designator	Size	Nbr of instances	Shape	
QFP	6x6X1	36	flat	
Comment	ZR VFQFPN 36 6x6x1.0			

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
Exemption Id.	Description

QueryList ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 5th August 2016			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.21	LEADFRAME	2206

QueryList : REACH-20th June 2016				
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	CSZR*W451BCJ					
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	5.839	mg	supplier	die	Silicon (Si)	7440-21-3		5.392	mg	923446	55588
				supplier	metallization	Aluminium (Al)	7429-90-5		0.031	mg	5309	320
				supplier	metallization	Copper (Cu)	7440-50-8		0.149	mg	25518	1536
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	171	10
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1028	62
				supplier	metallization	Tungsten (W)	7440-33-7		0.045	mg	7707	464
				supplier	Passivation	Silicon Nitride	12033-89-5		0.020	mg	3425	206
				supplier	Passivation	Silicon Oxide	7631-86-9		0.126	mg	21579	1299
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.069	mg	11817	711
				supplier	alloy	Copper (Cu)	7440-50-8		34.652	mg	968122	357237
Leadframe	Copper & its alloys	35.793	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.815	mg	22770	8402
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.049	mg	1369	505
				supplier	alloy	Zinc (Zn)	7440-66-6		0.043	mg	1201	443
				supplier	alloy	Nickel (Ni)	7440-02-0		0.214	mg	5979	2206
				supplier	alloy	Palladium (Pd)	7440-05-3		0.014	mg	391	144
				supplier	alloy	Gold (Au)	7440-57-5		0.006	mg	168	62
				supplier	glue or tape (choose)	Silver (Ag)	7440-22-4		1.422	mg	800225	14660
Die attach		1.777	mg	supplier	glue or tape	methylenediacylate	42594-17-2		0.238	mg	133934	2454
				supplier	glue or tape	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.044	mg	24761	454
				supplier	glue or tape	Polybutadiene Anhydride	Proprietary		0.053	mg	29826	546
				supplier	glue or tape	Epoxyhexylethyltrimethoxysilane	3388-04-3		0.009	mg	5065	93
				supplier	glue or tape	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.009	mg	5065	93
				supplier	glue or tape	Palladium (Pd)	7440-05-3		0.002	mg	1125	21
				supplier	wire	Gold (Au)	7440-57-5		0.831	mg	990465	8567
				supplier	wire	Palladium (Pd)	7440-05-3		0.008	mg	9535	82
Encapsulation	Other Organic Materials	52.752	mg	supplier	mold compound	silica vitreous	60676-86-0		44.997	mg	852991	463887
				supplier	mold compound	epoxy resin	Proprietary		2.110	mg	39998	21753
				supplier	mold compound	Phenol resin	Proprietary		1.846	mg	34994	19031
				supplier	mold compound	Magnesium hydroxide	1309-42-8		2.110	mg	39998	21753
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		1.055	mg	19999	10876
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.528	mg	10009	5443
				supplier	mold compound	carbon black	1333-86-4		0.106	mg	2009	1093