



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	<b>STMicroelectronics</b>	<b>Response Date *</b>	<b>2016-09-09</b>
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	<b>Floriana San Biagio</b>	<b>Representative Title</b>	<b>AMG MD CHAMPION</b>
<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>	<b>true</b>	<b>Legal Declaration *</b>	<b>Standard</b>
------------------------------	-------------	----------------------------	-----------------

**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
	HVW8*UI60BA5	A	ZS1A	2016-09-09
Amount	UoM	Unit type	ST ECOPACK Grade	
5.40	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	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; MDF valid for LD59015C25R			

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 : 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 :						Mfr Item Name	HW#8*UI60BA5					
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)
Die	Other inorganic materials	0.520	mg	supplier	die	Silicon (Si)	7440-21-3		0.492	mg	946154	91111
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	11538	1111
				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	9615	926
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	1923	185
				supplier	Passivation	Silicon Oxide	7631-86-9		0.010	mg	19231	1852
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.006	mg	11538	1111
Leadframe	Copper & its alloys	2.469	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.374	mg	961523	439630
				supplier	alloy	Iron (Fe)	7439-89-6		0.058	mg	23491	10741
				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	405	185
				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1215	556
				supplier	metallization	Nickel (Ni)	7440-02-0		0.029	mg	11746	5370
				supplier	metallization	Palladium (Pd)	7440-05-3		0.003	mg	1215	556
Die attach	Other Organic Materials	0.020	mg	supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	405	185
				supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.005	mg	250000	926
				supplier	glue	Aromatic amine	Proprietary		0.001	mg	50000	185
				supplier	glue	Glycol ether ester	Proprietary		0.001	mg	50000	185
				supplier	glue	silica	60676-86-0		0.006	mg	300000	1111
				supplier	glue	Aluminium oxide	1344-28-1		0.007	mg	350000	1296
Bonding wires	Precious metals	0.030	mg	supplier	wire	Gold (Au)	7440-57-5		0.030	mg	1000000	5556
Encapsulation	Other Organic Materials	2.361	mg	supplier	mold compound	Epoxy resin-1	Proprietary		0.090	mg	38119	16667
				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.045	mg	19060	8333
				supplier	mold compound	Phenol resin	Proprietary		0.063	mg	26684	11667
				supplier	mold compound	Silica	60676-86-0		2.038	mg	863194	377407
				supplier	mold compound	Carbon Black	1333-86-4		0.005	mg	2118	926
				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.090	mg	38119	16667
				supplier	mold compound	Zinc hydroxide	20427-58-1		0.030	mg	12706	5556