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 ***	2015-10-13
Contact Name *	Refer to " Supplier Comment" section	**Contact Title**	Refer to " Supplier Comment" section
Contact Phone *	Refer to " Supplier Comment" section	**Contact Email ***	Refer to " Supplier Comment" section
Authorized Representative *	Floriana San Biagio	**Representative Title**	AMS Materials Declaration 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/internet/com/support/online_tech_support.jsp		

Uncertainty Statement

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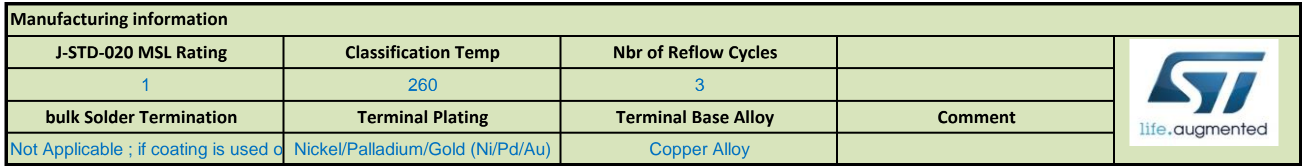
Legal Statement

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
	HYWY*0881ABJ	A	ZS1A	2015-10-13
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.37	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	2.9x1.6x1.05	5	gull wing	
Comment	Package: WY SOT 23-5; MDF valid for TS881ILT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	**Response**
Product(s) meets EU RoHS requirement without any exemptions	**true**
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false

Exemption Id.	**Description**

QueryList : REACH-16th June 2015	
Query	**Response**
The product 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	HYWY*0881ABJ					
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	0.253	mg	supplier	die	Silicon (Si)	7440-21-3		0.243	mg	960474	14844
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.002	mg	7905	122
Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.001	mg	3953	61
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.004	mg	15810	244
Die				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.003	mg	11858	183
Leadframe	Copper & its alloys	6.923	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.651	mg	960711	406292
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.167	mg	24122	10202
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.002	mg	289	122
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.009	mg	1300	550
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.086	mg	12422	5254
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.007	mg	1011	428
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	144	61
Die attach	Other inorganic materials	0.079	mg	supplier	glue	Silver (Ag)	7440-22-4		0.057	mg	721519	3482
Die attach				supplier	glue	methylene diacrylate	42594-17-2		0.013	mg	164557	794
Die attach				supplier	glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.003	mg	37975	183
Die attach				supplier	glue	Bismaleimide resin	Proprietary		0.003	mg	37975	183
Die attach				supplier	glue	Palladium (Pd)	7440-05-3		0.001	mg	12658	61
Die attach				supplier	glue	Dicumlyl peroxide	80-43-3		0.002	mg	25316	122
Bonding wire	Precious metals	0.157	mg	supplier	wire	Gold (Au)	7440-57-5		0.157	mg	1000000	9591
encapsulation	Other inorganic materials	8.956	mg	supplier	mold compound	Epoxy Resin	Proprietary		0.354	mg	39527	21625
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.133	mg	14850	8125
encapsulation				supplier	mold compound	Phenol resin	Proprietary		0.37	mg	41313	22602
encapsulation				supplier	mold compound	Silica	60676-86-0		7.179	mg	801586	438546
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.017	mg	1898	1038
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.165	mg	18423	10079