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 ***	2013-10-11
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 *	Giuseppe Vitali Palma	**Representative Title**	AMS & IPD 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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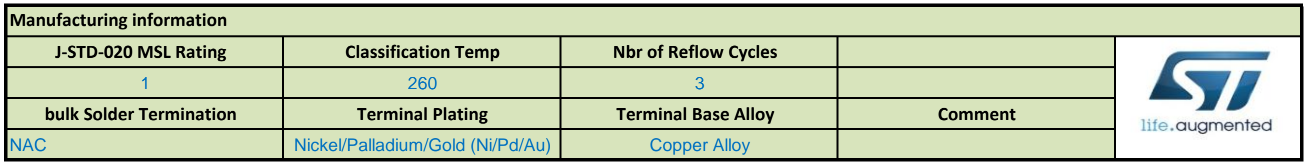
Legal Statement

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*3011AAJ	A	ZS1A	2013-10-11
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.098	mg	Each	ECOPACK® 2



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	
DSO	2.8X1.5X0.9	5	gull wing	
Comment	Package: SOT 23-5			

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-20th June 2013				
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*3011AAJ					
Homogeneous Material	**Material Group**	**Mass**	**UoM**	**Level**	**Substance Category**	**Substance**	**CAS**	**Exempt**	**Mass**	**UoM**	**Concentration in homogeneous material (ppm)**	**Concentration in product (ppm)**
Silicon Die	Other Inorganic Material	0.278	mg	Supplier	Silicon Die	Silicone (Si)	7440-21-3		0.268	mg	964029	16648
Silicon Die			mg	Supplier	Metallization	Aluminium (Al)	7429-90-5		0.002	mg	7194	124
Silicon Die			mg	Supplier	Metallization	Titanium (Ti)	7440-32-6		0.001	mg	3597	62
Silicon Die			mg	Supplier	Metallization	Tungsten (W)	7440-33-7		0.002	mg	7194	124
Silicon Die			mg	Supplier	Passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	3597	62
Silicon Die			mg	Supplier	Passivation	Silicon Oxide(SiO2)	7631-86-9		0.004	mg	14388	248
Leadframe	Copper and its alloy	7.2	mg	Supplier	Alloy	Copper	7440-50-8		6.936	mg	963333	430861
Leadframe			mg	Supplier	Alloy	Iron	7439-89-6		0.162	mg	22500	10063
Leadframe			mg	Supplier	Alloy	Phosphorus	7723-14-0		0.002	mg	278	124
Leadframe			mg	Supplier	Alloy	Zinc	7440-66-6		0.009	mg	1250	559
Leadframe			mg	Supplier	Alloy	Nickel	7440-02-0		0.083	mg	11528	5156
Leadframe			mg	Supplier	Alloy	Palladium	7440-05-3		0.007	mg	972	435
Leadframe			mg	Supplier	Alloy	Gold	7440-57-5		0.001	mg	139	62
Die Attach	Other Organic Material	0.07	mg	Supplier	Glue	Silver	7440-22-4		0.056	mg	800000	3479
Die Attach			mg	Supplier	Glue	methylene diacrylate	42594-17-2		0.007	mg	100000	435
Die Attach			mg	Supplier	Glue	Polymer of Polybutadiene + Anhydride	proprietary		0.002	mg	28571	124
Die Attach			mg	Supplier	Glue	Dicyclopentenyloxyethyl methacrylate	68586-19-6		0.002	mg	28571	124
Die Attach			mg	Supplier	Glue	Palladium (Pd)	7440-05-3		0.002	mg	28571	124
Bonding Wire	Other Inorganic Material	0.15	mg	Supplier	Glue	Bis(α,α-dimethylbenzyl) peroxide	80-43-3		0.001	mg	14286	62
Encapsulation	Other Organic Material	8.4	mg	Supplier	Bonding Wire	Au	7440-57-5		0.15	mg	1000000	9318
Encapsulation			mg	Supplier	Molding Compound	Epoxy Resin-1	Proprietary		0.168	mg	19248	10436
Encapsulation			mg	Supplier	Molding Compound	Epoxy Resin-2	Proprietary		0.168	mg	19248	10436
Encapsulation			mg	Supplier	Molding Compound	Biphenyl epoxy resin	85954-11-6		0.168	mg	19248	10436
Encapsulation			mg	Supplier	Molding Compound	Phenol resin	Proprietary		0.336	mg	38497	20872
Encapsulation			mg	Supplier	Molding Compound	Silica	60676-86-0		7.291	mg	835357	452913
Encapsulation			mg	Supplier	Molding Compound	Carbon Black	1333-86-4		0.017	mg	1948	1056
Encapsulation			mg	Supplier	Molding Compound	Magnesium hydroxide	1309-42-8		0.252	mg	28873	15654