



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	20/05/2014
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 *	Arcidiacono Salvatore	Representative Title	IPG IPC 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/web/en/support/online_tech_support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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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
PM8841D	YYWV*U1B3AAA	A	ZS1A	20/05/2014
Amount	UoM	Unit type	ST ECOPACK Grade	
16.00	mg	Each	ECOPACK® 2	

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	
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Beryllium Copper		

Package Designator	Size	Nbr of instances	Shape	
SOT	1.6 X 2.95 X 1.1	5	gull wing	
Comment				

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 December 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	YYWV*U1B3AAA					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	0.449	mg	supplier	die	Silicon (Si)	7440-21-3		0.426	mg	948775	26625
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	11136	313
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	8909	250
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	2227	63
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.009	mg	20045	563
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	2227	63
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.003	mg	6682	188
Leadframe	Copper & its alloys	8.384	mg	supplier	alloy	Copper (Cu)	7440-50-8		8.151	mg	972209	509438
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.192	mg	22901	12000
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.012	mg	1431	750
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.01	mg	1193	625
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.018	mg	2147	1125
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	119	63
Die attach	Other inorganic materials	0.204	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.14	mg	686275	8750
Die attach				supplier	glue or tape	methylene diacrylate	42594-17-2		0.051	mg	250000	3188
Die attach				supplier	glue or tape	Dicyclopentenyl etheryl methacrylate	68586-19-6		0.006	mg	29412	375
Die attach				supplier	glue or tape	Polymer of Polybutadiene + Anhydride	Proprietary		0.006	mg	29412	375
Die attach				supplier	glue or tape	Bis(alpha-dimethylbenzyl) peroxide	80-43-3		0.001	mg	4902	63
Bonding wire	Other inorganic materials	0.034	mg	supplier	wire	Copper (Cu)	7440-50-8		0.034	mg	1000000	2125
encapsulation	Other Organic Materials	6.929	mg	supplier	mold compound	Silica, vitreous	60676-86-0		5.91	mg	852937	369375
encapsulation				supplier	mold compound	phenolic resin	Proprietary		0.243	mg	35070	15188
encapsulation				supplier	mold compound	epoxy resin	Proprietary		0.277	mg	39977	17313
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.139	mg	20061	8688
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.014	mg	2020	875
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.069	mg	9958	4313
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.277	mg	39977	17313