



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 *	2013-07-09
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 *	Antonella Lanzafame	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
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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
	EASS*D6AA87W	A	ZS1A	2013-07-09
Amount	UoM	Unit type	ST ECOPACK Grade	
200.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	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	5.3,7.2,1.75	20	gull wing	
Comment	SSOP 20 7.2x5.3			

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-19 Dec 2012				
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	EASS*D6AA87W					
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 materials	11.589	mg	supplier	Silicon Die	Silicon (Si)	7440-21-3		11.361	mg	980326	56805
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.029	mg	2502	145
Silicon Die				supplier	metallization	Titanium (Ti)	7440-32-6		0.013	mg	1122	65
Silicon Die				supplier	metallization	Titanium Nitride (TiN)	25583-20-4		0.007	mg	604	35
Silicon Die				supplier	metallization	Tungsten (W)	7440-33-7		0.005	mg	431	25
Silicon Die				supplier	metallization	Silicon Nitride (SiN)	68034-42-4		0.022	mg	1898	110
Silicon Die				supplier	metallization	Silicon Oxide(SiO2)	7631-86-9		0.079	mg	6817	395
Silicon Die				supplier	passivation	Gamma-butyrolactone	96-48-0		0.049	mg	4228	245
Silicon Die				supplier	passivation	Polyhydroxyamide	55295-98-2		0.022	mg	1898	110
Silicon Die				supplier	passivation	Alcoxy silane	proprietary		0.001	mg	86	5
Silicon Die				supplier	passivation	Aryl Silicic Acid	proprietary		0.001	mg	86	5
Leadframe	Copper & its alloys	61.58	mg	supplier	Alloy	Copper	7440-50-8		59.32	mg	963300	296600
Leadframe				supplier	Alloy	Iron	7439-89-6		1.389	mg	22556	6945
Leadframe				supplier	Alloy	Phosphorus	7723-14-0		0.015	mg	244	75
Leadframe				supplier	Alloy	Zinc	7440-66-6		0.077	mg	1250	385
Leadframe				supplier	Alloy	Nickel	7440-02-0		0.708	mg	11497	3540
Leadframe				supplier	Alloy	Palladium	7440-05-3		0.062	mg	1007	310
Leadframe				supplier	Alloy	Gold	7440-57-5		0.009	mg	146	45
Die Attach	Other Organic Materials	0.301	mg	supplier	Glue	Silver	7440-22-4		0.242	mg	803987	1210
Die Attach				supplier	Glue	Carbocyclic Acrylates	proprietary		0.03	mg	99668	150
Die Attach				supplier	Glue	Bismaleimide resin	proprietary		0.009	mg	29900	45
Die Attach				supplier	Glue	2-preponoic acid, 2-methyl	68586-19-6		0.009	mg	29900	45
Die Attach				supplier	Glue	Additive	proprietary		0.009	mg	29900	45
Die Attach				supplier	Glue	Dicumyl peroxide	80-43-3		0.002	mg	6645	10
Bonding Wire	Other inorganic materials	0.2	mg	supplier	Bonding Wire	Au	7440-57-5		0.2	mg	1000000	1000
Encapsulation	Other Organic Materials	126.33	mg	supplier	Molding Compound	Epoxy Resin-1	Proprietary		3.79	mg	30001	18950
Encapsulation				supplier	Molding Compound	Epoxy Resin-2	Proprietary		3.79	mg	30001	18950
Encapsulation				supplier	Molding Compound	Phenol resin	Proprietary		5.685	mg	45001	28425
Encapsulation				supplier	Molding Compound	Silica	60676-86-0		110.286	mg	872999	551430
Encapsulation				supplier	Molding Compound	Carbon Black	1333-86-4		0.253	mg	2003	1265
Encapsulation				supplier	Molding Compound	Others	Proprietary		2.526	mg	19995	12630