



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 *	2013-09-12
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 *	Giovanni Giacopello	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/web/en/support/online_tech_support.html		

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

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 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
	CDW8*4AX6V14	A	ZS1A	2013-09-12
Amount	UoM	Unit type	ST ECOPACK Grade	
7.00	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	
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	1.8 - 1.8 - 0.8	5	gull wing	
Comment	Package: SOT 323 5LDS. MDF valid also for FG & CP: ESDA25W5C/C (CP: ESDA25W5); ESDA6V1W5C/C (CP: ESDA6V1W5); ESDALC6V1W5C/C (CP: ESDALC6V1W5); ESDALC6V1W5SC/C (CP: ESDALC6V1W5S)			

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	CDW8*4AX6V14					
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	0.219	mg	supplier	die	Silicon (Si)	7440-21-3		0.21	mg	958904	30000
Silicon Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	13699	429
Silicon Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.004	mg	18265	571
Silicon Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.002	mg	9132	286
Lead-frame	Other inorganic materials	2.643	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.553	mg	965948	364714
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.06	mg	22701	8571
Lead-frame				supplier	alloy	Phosphorus (P)	12185-10-3		0.001	mg	378	143
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.003	mg	1135	429
Lead-frame				supplier	metallization	Silver (Ag)	7440-02-0		0.026	mg	9837	3714
Die Attach	Other inorganic materials	0.06	mg	supplier	glue	Silver (Ag)	7440-22-4		0.041	mg	683333	5857
Die Attach				supplier	glue	methylene diacrylate	42594-17-2		0.015	mg	250000	2143
Die Attach				supplier	glue	Dicyclopentenloxyethyl methacrylate	68586-19-6		0.002	mg	33333	286
Die Attach				supplier	glue	Polymer of Polybutadiene + Anhydride	Proprietary		0.002	mg	33333	286
Bonding wire	Other inorganic materials	0.02	mg	supplier	wire	Copper (Cu)	7440-50-8		0.019	mg	950000	2714
Bonding wire				supplier	wire	Palladium (Pd)	7440-05-3		0.001	mg	50000	143
encapsulation	Other inorganic materials	3.871	mg	supplier	mold compound	Silica, vitreous	60676-86-0		3.302	mg	853010	471714
encapsulation				supplier	mold compound	phenolic resin	Proprietary		0.135	mg	34875	19286
encapsulation				supplier	mold compound	epoxy resin	Proprietary		0.155	mg	40041	22143
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		0.077	mg	19892	11000
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.008	mg	2067	1143
encapsulation				supplier	mold compound	Zinc hydroxide	20427-58-1		0.039	mg	10075	5571
encapsulation				supplier	mold compound	Magnesium hydroxide	1309-42-8		0.155	mg	40041	22143
connections coating	Solder	0.187	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.187	mg	1000000	26714