



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 *	2013-11-06
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 Material 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
	ID07*V393AAY	A	BO2A	2013-11-06
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	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)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	4.9 - 3.9 - 1.52	8	gull wing	
Comment	Package: SO 08 .15 JEDEC; MDF valid for TS3321YDT			

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 December 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	IDO7*V393AAY					
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	0.566	mg	supplier	die	Silicon (Si)	7440-21-3		0.548	mg	968198	6850
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	8834	63
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1767	13
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	1767	13
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.011	mg	19435	138
Leadframe	Copper & its alloys	34.966	mg	supplier	alloy	Copper (Cu)	7440-50-8		33.741	mg	964966	421763
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.794	mg	22708	9925
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.048	mg	1373	600
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.042	mg	1201	525
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.313	mg	8952	3913
Leadframe				supplier	metallization	Palladium (Pd)	7439-89-6		0.01	mg	286	125
Leadframe				supplier	metallization	Gold (Au)	12185-10-3		0.009	mg	257	113
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.009	mg	257	113
Die attach	Other inorganic materials	0.276	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.251	mg	909420	3138
Die attach				supplier	glue or tape	acrylate	Proprietary		0.014	mg	50725	175
Die attach				supplier	glue or tape	Methacrylate	Proprietary		0.011	mg	39855	138
Bonding wire	Other inorganic materials	0.049	mg	supplier	wire	Copper (Cu)	7440-50-8		0.049	mg	1000000	613
encapsulation	Other inorganic materials	44.143	mg	supplier	mold compound	Epoxy Resin	Proprietary		3.311	mg	75006	41388
encapsulation				supplier	mold compound	Phenol Resin	Proprietary		2.207	mg	49997	27588
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		38.229	mg	866026	477863
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.22	mg	4984	2750
encapsulation				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.176	mg	3987	2200