



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
<i>* : Required Field</i>			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-03-03
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/internet/com/support/online_tech_support.jsp		

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
	A59U*UR37AD6	A	MU1A	2014-03-03
Amount	UoM	Unit type	ST ECOPACK Grade	
653.38	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	250	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	7.5,15.4,2.50	24	gull wing	
Comment	Package: SO 24 .30 TO JEDEC MS-013AD; MDF valid for L6227D; L6227DTR			

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	A59U*UR37AD6					
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	9.394	mg	supplier	die	Silicon (Si)	7440-21-3		9.171	mg	976261	14036
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.069	mg	7345	106
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.008	mg	852	12
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.02	mg	2129	31
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.119	mg	12668	182
die (s)				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	106	2
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	106	2
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.005	mg	532	8
Leadframe	Copper & its alloys	203.464	mg	supplier	alloy	Copper (Cu)	7440-50-8		198.048	mg	973381	303113
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		4.658	mg	22893	7129
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.28	mg	1376	429
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.244	mg	1199	373
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.214	mg	1052	328
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.014	mg	69	21
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	29	9
Die attach	Other Organic Materials	1.063	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		0.819	mg	770461	1253
Die attach				supplier	glue or tape	Epoxy Cresol Novolak	29690-82-2		0.24	mg	225776	367
Die attach				supplier	glue or tape	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.004	mg	3763	6
Bonding wire	Precious metals	0.478	mg	supplier	wire	Gold (Au)	7440-57-5		0.478	mg	1000000	732
encapsulation	Other Organic Materials	438.981	mg	supplier	mold compound	Silica, vitreous	60676-86-0		351.185	mg	800000	537490
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		30.728	mg	69998	47029
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		17.56	mg	40002	26876
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		26.339	mg	60000	40312
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		5.268	mg	12001	8063
encapsulation				JIG 1	mold compound	Brominated Epoxy Resin	40039-93-8		6.584	mg	14998	10077
encapsulation				supplier	mold compound	Carbon black	1333-86-4		1.317	mg	3000	2016