




Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2013-01-08
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	
	<p>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.</p>
Legal Statement	
Supplier Acceptance *	true
	Legal Declaration * Standard
Legal Statement	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	8GDP*TS4S2RS	A	LGGA	2013-01-08
Amount	UoM	Unit type	ST ECOPACK Grade	
320.00	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 on	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape
SIP	6.5 - 6.1 - 2.3	3	Through-hole
Comment			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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)	true
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a g

QueryList : REACH-18 June 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	8GDP*TS452RS					
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	3.267	mg	supplier	die	Silicon (Si)	7440-21-3		2.861	mg	875727	8941
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.095	mg	29079	297
die (s)				supplier	passivation	Alumina	1344-28-1		0.026	mg	7958	81
die (s)				supplier	passivation	Lead silicate Glass	65997-18-4	7c-I-Electrical and d	0.237	mg	72544	741
die (s)				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.016	mg	4897	50
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1837	19
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.026	mg	7958	81
Leadframe	Copper & its alloys	165.873	mg	supplier	alloy	Copper (Cu)	7440-50-8		164.453	mg	991439	513916
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.165	mg	995	516
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.045	mg	295	153
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		1.199	mg	7228	3747
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.007	mg	42	22
Soft solder	Solder	2.736	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.613	mg	955044	8166
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.068	mg	24854	213
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.055	mg	20102	172
Bonding wire	Aluminium & its alloys	0.437	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.437	mg	1000000	1366
encapsulation	Other Organic Materials	146.642	mg	supplier	mold compound	Epoxy Resin	Proprietary		4.399	mg	29998	13747
encapsulation				supplier	mold compound	2,2'-(3,3',5,5'-tetramethyl-1,1'-biphenyl)-4,4'	EC 413-900-7		5.865	mg	39995	18328
encapsulation				supplier	mold compound	phenol resin	Proprietary		7.332	mg	49999	22913
encapsulation				supplier	mold compound	Silica, vitreous	60676-86-0		128.312	mg	875002	400975
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.734	mg	5005	2294
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3266