



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 *	2014-10-17
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
STL220N6F7	BSER*OD68BC2	A	SH1A	2014-10-17
Amount	UoM	Unit type	ST ECOPACK Grade	
100.00	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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6, 5, 1	8	pin	
Comment	Package: Power FLAT 5x6 8L SINGLE;			

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)

QueryList : REACH-16th June 2014				
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	BSER*OD68BC2					
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	2.471	mg	supplier	die	Silicon (Si)	7440-21-3		2.112	mg	854715	21120
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.127	mg	51396	1270
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.014	mg	5666	140
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.047	mg	19021	470
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.074	mg	29947	740
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.005	mg	2023	50
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.068	mg	27519	680
die (s)				supplier	metallization	Silver (Ag)	7440-22-4		0.024	mg	9713	240
Leadframe	Copper & its alloys	42.938	mg	supplier	alloy	Copper (Cu)	7440-50-8		41.162	mg	958638	411620
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.968	mg	22544	9680
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.058	mg	1351	580
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.051	mg	1188	510
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		0.699	mg	16279	6990
Soft solder	Solder	9.491	mg	JIG Table A	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	9.064	mg	955010	90640
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.237	mg	24971	2370
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.19	mg	20019	1900
Bonding wire & Clip	Precious metals	7.855	mg	supplier	wire	Gold (Au)	7440-57-5		0.05	mg	6365	500
Bonding wire & Clip				supplier	clip	Copper (Cu)	7440-50-8		7.805	mg	993635	78050
encapsulation	Other inorganic materials	37.096	mg	supplier	mold compound	Silica, vitreous	60676-86-0		34.35	mg	925976	343500
encapsulation				supplier	mold compound	epoxy resin	85954-11-6		1.484	mg	40004	14840
encapsulation				supplier	mold compound	phenol resin	26834-02-6		1.113	mg	30003	11130
encapsulation				supplier	mold compound	carbon black	1333-86-4		0.149	mg	4017	1490
connections coating	Solder	0.149	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.149	mg	1000000	1490