



## Materials Declaration Form

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

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2013-12-16
<b>Contact Name *</b>	Refer to "Supplier Comment" section	<b>Contact Title</b>	Refer to "Supplier Comment" section
<b>Contact Phone *</b>	Refer to "Supplier Comment" section	<b>Contact Email *</b>	Refer to "Supplier Comment" section
<b>Authorized Representative *</b>	Emilio Castelli	<b>Representative Title</b>	APG MD CHAMPION
<b>Representative Phone *</b>	Refer to "Supplier Comment" section	<b>Representative Email *</b>	Refer to "Supplier Comment" section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/internet/com/support/online_tech_support.jsp">http://www.st.com/internet/com/support/online_tech_support.jsp</a>		

**Uncertainty Statement**


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Legal Statement			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
L9903TR	J6Z7*U448DB6	B	MU1A	2013-12-16
Amount		UoM	Unit type	ST ECOPACK Grade
532.29		mg	Each	ECOPACK® 1

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
3	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	
CHP	7.5x12.8x2.3	20	flat	
Comment				

Material Composition Declaration						Mfr Item Name	J6Z7*U448DB6					
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	8.861	mg	supplier	die	Silicon (Si)	7440-21-3		8.648	mg	975962	16247
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.052	mg	5868	98
die (s)				supplier	metallization	Copper (Cu)	7440-50-8		0.052	mg	5868	98
die (s)				supplier	metallization	Tantalum (Ta)	7440-25-7		0.001	mg	113	2
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.019	mg	2144	36
die (s)				supplier	passivation	Indium Tin oxide ( In2O3.SnO2 )	50926-11-9		0.089	mg	10044	167
Leadframe	Copper & its alloys	174.044	mg	supplier	alloy	Copper (Cu)	7440-50-8		169.035	mg	971220	317562
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		3.976	mg	22845	7470
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.239	mg	1373	449
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.208	mg	1195	391
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.545	mg	3131	1024
Leadframe				supplier	metallization	Palladium (Pd)	7440-05-3		0.022	mg	126	41
Leadframe				supplier	metallization	Gold (Au)	7440-57-5		0.019	mg	109	36
Die attach		1.895	mg	supplier	glue or tape	Silver (Ag)	7440-22-4		1.459	mg	769921	2741
Die attach				supplier	glue or tape	Epoxy Cresol Novolak	29690-82-2		0.428	mg	225858	804
Die attach				supplier	glue or tape	1-Isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.008	mg	4222	15
Bonding wire		0.473		supplier	wire	Gold (Au)	7440-57-5		0.473	mg	1000000	889
encapsulation		347.016	mg	supplier	mold compound	Silica, vitreous	60676-86-0		277.613	mg	800001	521545
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		24.292	mg	70003	45637
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		13.88	mg	39998	26076
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		20.821	mg	60000	39116
encapsulation				JIG Table B	mold compound	Antimony Trioxide	1309-64-4		4.164	mg	11999	7823
encapsulation				JIG Table B	mold compound	Brominated Epoxy Resin	40039-93-8		5.205	mg	14999	9779
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		1.041	mg	3000	1956