



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 *	2014-11-03
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 *	Emilio Castelli	Representative Title	APG MD 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/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
L5150GJTR	A6WL*UN44BA6	A	BO2A	2014-11-03
Amount	UoM	Unit type	ST ECOPACK Grade	
82.40	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	
NAC	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
CHP	4.9x3.9x1.35	12	flat	
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 '7a' exemption (other selected exemptions may apply)	TRUE
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 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	A6WL*UN448A6					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	2.619	mg	supplier	die	Silicon (Si)	7440-21-3		2.460	mg	939290	29854
Die				supplier	metallization	Aluminium (Al)	7429-90-5		0.016	mg	6109	194
Die				supplier	metallization	Tungsten (W)	7440-33-7		0.026	mg	9927	316
Die				supplier	passivation	Silicon Nitride (SiN)	12033-89-5		0.004	mg	1527	49
Die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.038	mg	14509	461
Die				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	382	12
Die				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1527	49
Die				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	4964	158
Die				supplier	glass coating	Glass: Silicon Dioxide (SiO2)	7631-86-9		0.038	mg	14509	461
Die				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.019	mg	7255	231
Leadframe	Copper & its alloys	31.038	mg	supplier	alloy	Copper (Cu)	7440-50-8		29.175	mg	939977	354066
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.686	mg	22102	8325
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.041	mg	1321	498
Leadframe				supplier	alloy	Zinc (Zn)	7440-66-6		0.036	mg	1160	437
Leadframe				supplier	metallization	Silver (Ag)	7440-22-4		1.100	mg	35440	13350
Die attach		2.485	mg	JIG - R	Soft Solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.373	mg	954930	28799
Die attach				supplier	Soft Solder	Silver (Ag)	7440-22-4		0.062	mg	24950	752
Die attach				supplier	Soft Solder	Tin (Sn)	7440-31-5		0.050	mg	20121	607
Bonding wire		0.276		supplier	wire	Gold (Au)	7440-57-5		0.276	mg	1000000	3350
encapsulation		44.581	mg	supplier	mold compound	Silica, vitreous	60676-86-0		35.664	mg	799982	432816
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		3.121	mg	70007	37876
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		1.783	mg	39995	21638
encapsulation				supplier	mold compound	Biphenyl epoxy resin	85954-11-6		2.675	mg	60003	32464
encapsulation				supplier	mold compound	Antimony Trioxide	1309-64-4		0.535	mg	12001	6493
encapsulation				supplier	mold compound	Brominated Epoxy Resin	40039-93-8		0.669	mg	15006	8119
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		0.134	mg	3006	1626
connections coating	Solder	1.403	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.403	mg	1000000	17027