



Materials Declaration Form

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

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2014-04-16
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 *	Giuseppe Vitali Palma	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
	AYC5*V331AAL	A	Z6HA	2014-04-16
Amount	UoM	Unit type	ST ECOPACK Grade	
1.42	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		
NAC	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	1.2x1.3x0.5	5	No lead	
Comment	Package: MLPD/DFN 1.2x1.3x0.5 6L P0.4			

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	AYC5*V331AAL					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.206	mg	SUPPLIER	Die	Si	7440-21-3		0.206	mg	1000000	145070
Leadframe	Copper & its alloys	0.491	mg	SUPPLIER	Alloy	Copper	7440-50-8		0.459	mg	934827	323239
Leadframe			mg	SUPPLIER	Alloy	Silicon	7440-21-3		0.004	mg	8147	2817
Leadframe			mg	SUPPLIER	Alloy	Nickel	7440-02-0		0.017	mg	34623	11972
Leadframe			mg	SUPPLIER	Alloy	Magnesium	7439-95-4		0.001	mg	2037	704
Leadframe			mg	SUPPLIER	Alloy	Zinc	7440-66-6		0.002	mg	4073	1408
Leadframe			mg	SUPPLIER	Alloy	Manganese	7439-96-5		0.001	mg	2037	704
Leadframe			mg	SUPPLIER	Alloy	Silver	7440-22-4		0.001	mg	2037	704
Leadframe			mg	SUPPLIER	Alloy	Nickel	7440-02-0		0.004	mg	8147	2817
Leadframe			mg	SUPPLIER	Alloy	Palladium	7440-05-3		0.001	mg	2037	704
Leadframe			mg	SUPPLIER	Alloy	Gold	7440-57-5		0.001	mg	2037	704
Die attach	Other organic materials	0.093	mg	SUPPLIER	Epoxy	Aluminium oxide	1344-28-1		0.03	mg	322581	21127
Die attach			mg	SUPPLIER	Epoxy	Diethylene glycol monoethyl ether acetate	112-15-2		0.041	mg	440860	28873
Die attach			mg	SUPPLIER	Epoxy	silica	60676-86-0		0.006	mg	64516	4225
Die attach			mg	SUPPLIER	Epoxy	Epoxy resin	25068-38-6		0.007	mg	75269	4930
Die attach			mg	SUPPLIER	Epoxy	Aromatic amine	Proprietary		0.003	mg	32258	2113
Die attach			mg	SUPPLIER	Epoxy	curing & hardener	Proprietary		0.006	mg	64516	4225
Bonding wire	Other inorganic materials	0.02	mg	SUPPLIER	Bonding Wire	Au	7440-57-5		0.02	mg	1000000	14085
Encapsulation	Other organic materials	0.61	mg	SUPPLIER	molding compound	Silica Fused	60676-86-0		0.572	mg	937705	402817
Encapsulation			mg	SUPPLIER	molding compound	Epoxy Resin	Proprietary		0.018	mg	29508	12676
Encapsulation			mg	SUPPLIER	molding compound	Phenol Resin	Proprietary		0.018	mg	29508	12676
Encapsulation			mg	SUPPLIER	molding compound	Carbon Black	1333-86-4		0.002	mg	3279	1408