



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 *	2016-04-22
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 *	Floriana San Biagio	Representative Title	AMG 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
	FYWO*X620AAL	A	ZS1A	2016-04-22
Amount	UoM	Unit type	ST ECOPACK Grade	
6.00	mg	Each	ECOPACK® 3	

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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOT	2x1.26x0.93	6	gull wing	
Comment	Package: WO SOT 323 6LDS; MDF valid for TSV620AICT			

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-17th December 2015				
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	FYWO*X620AAL					
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 Material	0.293	mg	Supplier	Silicon Die	Silicon (Si)	7440-21-3		0.28	mg	955631	46667
Die			mg	Supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	13652	667
Die			mg	Supplier	passivation	Silicon Nitride	12033-89-5		0.001	mg	3413	167
Die			mg	Supplier	passivation	Silicon Oxide	7631-86-9		0.008	mg	27304	1333
Leadframe	Copper and its alloy	2.829	mg	Supplier	Alloy	Copper (Cu)	7440-50-8		2.723	mg	962526	453833
Leadframe			mg	Supplier	Alloy	Iron (Fe)	7439-89-6		0.064	mg	22554	10667
Leadframe			mg	Supplier	Alloy	Iron Phosphide(Fe2P)	1310-43-6		0.001	mg	347	167
Leadframe			mg	Supplier	Alloy	Zinc (Zn)	7440-66-6		0.004	mg	1388	667
Leadframe	Nickel (Ni)		mg	Supplier	Alloy	Nickel (Ni)	7440-02-0		0.032	mg	11450	5333
Leadframe	Precious metals		mg	Supplier	Alloy	Palladium (Pd)	7440-05-3		0.003	mg	1041	500
Leadframe	Precious metals		mg	Supplier	Alloy	Gold (Au)	7440-57-5		0.002	mg	694	333
Die Attach	Other Organic Material	0.02	mg	Supplier	Glue	Aluminium oxide	1344-28-1		0.006	mg	300000	1000
Die Attach			mg	Supplier	Glue	Diethylene glycol monoethyl ether acetate (2	112-15-2		0.008	mg	400000	1333
Die Attach			mg	Supplier	Glue	Epoxyde Bisphenol A Resin	25068-38-6		0.001	mg	50000	167
Die Attach			mg	Supplier	Glue	Epoxy resin	Proprietary		0.004	mg	200000	667
Die Attach			mg	Supplier	Glue	Aromatic amine	Proprietary		0.001	mg	50000	167
Bonding Wire	Precious metals	0.02	mg	Supplier	Bonding Wire	Gold (Au)	7440-57-5		0.02	mg	1000000	3333
Encapsulation	Other Organic Material	2.839	mg	Supplier	Molding Compound	Epoxy Resin-1	Proprietary		0.084	mg	29737	14000
Encapsulation			mg	Supplier	Molding Compound	Epoxy Resin-2	Proprietary		0.084	mg	29737	14000
Encapsulation			mg	Supplier	Molding Compound	Phenol resin	Proprietary		0.127	mg	44606	21167
Encapsulation			mg	Supplier	Molding Compound	Silica	60676-86-0		2.463	mg	867566	410500
Encapsulation			mg	Supplier	Molding Compound	Carbon Black	1333-86-4		0.006	mg	2075	1000
Encapsulation			mg	Supplier	Molding Compound	Magnesium hydroxide	1309-42-8		0.057	mg	20055	9500
Encapsulation			mg	Supplier	Molding Compound	Zinc hydroxide	20427-58-1		0.018	mg	6224	3000