



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 *	2013-07-03
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 *	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

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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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
	FBE3*V912ARY	A	ZY1A	2013-07-03
Amount	UoM	Unit type	ST ECOPACK Grade	
28.20	mg	Each	ECOPACK® 1	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	
DSO	3X3X0.86	8	gull wing	
Comment	Package: MSOP/TSSOP 8 BODY3.00 PITCH0.65			

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-19 December 2012				
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	FBE3*V912ARY					
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	0.768	mg		DIE	Silicon (Si)	7440-21-3		0.768	mg	1000000	27233
LEADFRAME	Copper & its alloys	13.39	mg		ALLOY	Copper (Cu)	7440-50-8		12.881	mg	961987	456757
LEADFRAME					ALLOY	Nickel (Ni)	7449-02-0		0.402	mg	30022	14255
LEADFRAME					ALLOY	Silicon (Si)	7440-21-3		0.087	mg	6497	3085
LEADFRAME					ALLOY	Magnesium (Mg)	7439-95-4		0.02	mg	1494	709
LEADFRAME		0.208	mg		COATING	Nickel (Ni)	7449-02-0		0.203	mg	975962	7198
LEADFRAME					COATING	Palladium (Pd)	7440-05-3		0.004	mg	19231	142
LEADFRAME					COATING	Gold (Au)	7440-57-5		0.001	mg	4808	35
DIE ATTACH	Other Organic Materials	0.367	mg		GLUE	Epoxy Resin A	8003-36-5		0.026	mg	70845	922
DIE ATTACH					GLUE	Epoxy Resin B	68475-94-5		0.015	mg	40872	532
DIE ATTACH					GLUE	Silver (Ag)	7440-22-4		0.281	mg	765668	9964
DIE ATTACH					GLUE	Lactone	96-48-0		0.015	mg	40872	532
DIE ATTACH					GLUE	Polyoxypropylenediamine	9046-10-0		0.015	mg	40872	532
DIE ATTACH					GLUE	2,6-Diglycidyl phenyl allyl ether oligomer	Proprietary		0.015	mg	40872	532
BONDING WIRE	Precious metals	0.078	mg		BONDING WIRE	Gold (Au)	7440-57-5		0.077	mg	987179	2730
BONDING WIRE					BONDING WIRE	Palladium (Pd)	7440-05-3		0.001	mg	12821	35
ENCAPSULATION	Other Organic Materials	13.39	mg		MOLDING COMPOUND	Epoxy Resin	Proprietary		1.205	mg	89993	42729
ENCAPSULATION					MOLDING COMPOUND	Silica Fused	60676-86-0		11.248	mg	840030	398851
ENCAPSULATION					MOLDING COMPOUND	Phenol Resin	Proprietary		0.87	mg	64974	30850
ENCAPSULATION					MOLDING COMPOUND	Carbon Black	1333-86-4		0.067	mg	5004	2376