Materials Declaration Form

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

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2013-09-12
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

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 omprehensive 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**
	HNSR*E47R81G	A	ZA41	2013-09-12
	Amount	**UoM**	**Unit type**	**ST ECOPACK Grade**
	70.022	mg	Each	ECOPACK® 2

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	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SMC	4.3X2.77X2	2	J bend	
Comment	Package: SMA			

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 '7b' exemption (other selected exemptions may apply)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	**true**
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
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

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	HNSR*E47R81G					
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 material	1.301	mg	Supplier	Silicon Die	silicon	7440-21-3		1.279	mg	983090	18266
Silicon Die				Supplier	Passivation	Gamma-butyrolactone	96-48-0		0.007	mg	5380	100
Silicon Die				Supplier	Passivation	Polyhydroxyamide	55295-98-2		0.003	mg	2306	43
Silicon Die				Supplier	Back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	769	14
Silicon Die				Supplier	Back side metallization	Gold (Au)	7440-57-5		0.002	mg	1537	29
Silicon Die				Supplier	Back side metallization	Nickel (Ni)	7440-02-0		0.009	mg	6918	129
Leadframe	Copper and its alloy	26.9	mg	Supplier	Alloy	Cu	7440-50-8		26.887	mg	999517	383979
Leadframe				Supplier	Alloy	Zn	7440-66-6		0.001	mg	37	14
Leadframe				Supplier	Alloy	Fe	7439-89-6		0.003	mg	112	43
Leadframe				Supplier	Alloy	Iron Phosphide(FeP)	26508-33-8		0.009	mg	335	129
Die attach	Other organic material	2.85	mg	Supplier	soft solder	Ag	7440-22-4		0.071	mg	24912	1014
Die attach				Supplier	soft solder	Sn	7440-31-5		0.143	mg	50175	2042
Die attach				JIG R	soft solder	Lead	7439-92-1	7a-Lead in high me	2.636	mg	924912	37645
Encapsulation	Other organic material	38.33	mg	Supplier	Molding Compound	silica fused	7631-86-9		26.333	mg	687008	376068
Encapsulation				Supplier	Molding Compound	silica quartz	14808-60-7		9.582	mg	249987	136843
Encapsulation				Supplier	Molding Compound	phenolic resin	9003-35-4		2.3	mg	60005	32847
Encapsulation				Supplier	Molding Compound	carbon black	1333-86-4		0.115	mg	3000	1642
Finishing	Other inorganic material	0.641	mg	Supplier	connection coating	Sn	7440-31-5		0.641	mg	1000000	9154