



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 *	2015-06-09
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 *	Giovanni Giacobello	Representative Title	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 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
	8HSR*TWU015C	A	ZA41	2015-06-09
Amount	UoM	Unit type	ST ECOPACK Grade	
70.00	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	Comment	
Not Applicable ; if coating is used c	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOJ	4.3 x 2.77 x 2	2	J bend	
Comment	Package: SMA; MDF valid for SMAJ13A-TR			

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-17th December 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	8HSR*TWU015C						
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)	
Die or Dies	Other inorganic materials	1.129	mg	supplier	die	Silicon (Si)	7440-21-3		1.092	mg	967228	15600	
Die or Dies				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	5314	86	
Die or Dies				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	886	14	
Die or Dies				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	1771	29	
Die or Dies				supplier	metallization	Nickel (Ni)	7440-02-0		0.005	mg	4429	71	
Die or Dies				supplier	metallization	Gold (Au)	7440-57-5		0.005	mg	4429	71	
Die or Dies				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.006	mg	5314	86	
Die or Dies				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.004	mg	3543	57	
Die or Dies				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	886	14	
Die or Dies				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	6200	100	
Leadframe & Clip	Copper and its alloy	26.75	mg	supplier	alloy	Copper (Cu)	7440-50-8		26.737	mg	999514	381957	
Leadframe & Clip				supplier	alloy	Zinc (Zn)	7440-66-6		0.001	mg	37	14	
Leadframe & Clip				supplier	alloy	Iron (Fe)	7439-89-6		0.003	mg	112	43	
Leadframe & Clip				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	336	129	
Soft solder	solder	2.834	mg	supplier	solder	Silver (Ag)	7440-22-4		0.071	mg	25053	1014	
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.142	mg	50106	2029	
Soft solder				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.621	mg	924841	37443	
encapsulation	Other inorganic materials	38.65	mg	supplier	mold compound	Amorphous Silica	7631-86-9		23.816	mg	616197	340229	
encapsulation				supplier	mold compound	Quartz	14808-60-7		7.73	mg	200000	110429	
encapsulation				supplier	mold compound	epoxy resin	Proprietary		4.638	mg	120000	66257	
encapsulation				supplier	mold compound	phenolic resin	9003-35-4		2.319	mg	60000	33129	
encapsulation				supplier	mold compound	Bismuth trioxide	1304-76-3		0.027	mg	699	386	
encapsulation				supplier	mold compound	chlorine residue	7782-50-5		0.004	mg	103	57	
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.116	mg	3001	1657	
connections coating	Solder	0.637	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.637	mg	1000000	9100	