



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 *	2017-01-25
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	ADG MD 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/web/en/support/support.html		

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
STPS140AY	BNSR*Z24SD1T	A	ZA41	2017-01-25
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	
NAC	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			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
2 - 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
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - 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-20th June 2016				
Query				Response
1 - Product(s) 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	BNSR*Z245D1T					
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 materials	0.672	mg	supplier	die	Silicon (Si)	7440-21-3		0.639	mg	950893	9129
				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	5952	57
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1488	14
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1488	14
				supplier	metallization	Nickel (Ni)	7440-02-0		0.003	mg	4464	43
				supplier	metallization	Gold (Au)	7440-57-5		0.003	mg	4464	43
				supplier	Passivation	Silicon Oxide	7631-86-9		0.004	mg	5952	57
				supplier	back side metallization	Gold (Au)	7440-57-5		0.001	mg	1488	14
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.004	mg	5952	57
				supplier	polymer die coating	Durimide	proprietary		0.012	mg	17859	171
				Leadframe & Clip	Copper and its alloy	26.928	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Zinc (Zn)	7440-66-6						0.001	mg	38	15
supplier	alloy	Iron (Fe)	7439-89-6						0.003	mg	111	43
supplier	alloy	Iron Phosphide (FeP)	26508-33-8						0.009	mg	334	129
supplier	solder	Silver (Ag)	7440-22-4						0.071	mg	24895	1014
Soft solder	Solder	2.852	mg	supplier	solder	Tin (Sn)	7440-31-5		0.143	mg	50140	2043
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.638	mg	924965	37686
				supplier	mold compound	Amorphous Silica	7631-86-9		23.975	mg	616213	342500
Encapsulation	Other inorganic materials	38.907	mg	supplier	mold compound	Quartz	14808-60-7		7.781	mg	199990	111157
				supplier	mold compound	epoxy resin	25068-38-6		4.669	mg	120004	66700
				supplier	mold compound	phenolic resin	9003-35-4		2.334	mg	59989	33343
				supplier	mold compound	Bismuth trioxide	1304-76-3		0.027	mg	694	386
				supplier	mold compound	chlorine residue	7782-50-5		0.004	mg	103	57
				supplier	mold compound	Carbon black	1333-86-4		0.117	mg	3007	1671
Connections coating	Solder	0.641	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.641	mg	1000000	9157