



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 *	2017-07-12
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Giovanni Giacopello	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


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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
BZW50-150	8HVV*TWU176N	A	Z8GA	2017-07-12
Amount	UoM	Unit type	ST ECOPACK Grade	
2050.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
Not Applicable	Not Applicable	Not Applicable		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
RAD	27.8 - 8.5 - 8.5	2	Through-hole	
Comment	Package: R6			

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)

Query : California Prop65 list, dated 27th January 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			TRUE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			FALSE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.23	Die	112
Lead	2.67	Soft solder	1302

QueryList : REACH-12th January 2017				
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	8HVV*TWU176N					
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	15.226	mg	supplier	die	Silicon (Si)	7440-21-3		14.494	mg	951924	7070
				supplier	metallization	Aluminium (Al)	7429-90-5		0.126	mg	8275	61
				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	1248	9
				supplier	metallization	Tungsten (W)	7440-33-7		0.030	mg	1970	15
				supplier	metallization	Nickel (Ni)	7440-02-0		0.091	mg	5977	44
				supplier	metallization	Gold (Au)	7440-57-5		0.090	mg	5911	44
				supplier	Passivation	Silicon Oxide	7631-86-9		0.124	mg	8144	60
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.084	mg	5517	41
				supplier	back side metallization	Gold (Au)	7440-57-5		0.030	mg	1970	15
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.138	mg	9063	67
Leadframe	Copper & its alloys	1100.442	mg	supplier	alloy	Copper (Cu)	7440-50-8		1099.891	mg	999499	536532
				supplier	alloy	Zinc (Zn)	7440-66-6		0.046	mg	42	22
				supplier	alloy	Iron (Fe)	7439-89-6		0.109	mg	99	53
				supplier	alloy	Phosphorus (P)	12185-10-3		0.396	mg	360	193
Soft solder	Solder	2.885	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.669	mg	925130	1302
				supplier	solder	Tin (Sn)	7440-31-5		0.145	mg	50260	71
				supplier	solder	Silver (Ag)	7440-22-4		0.071	mg	24610	35
Encapsulation	Other inorganic materials	910.311	mg	supplier	mold compound	Silica fused(SiO2)	7631-86-9		364.127	mg	400003	177623
				supplier	mold compound	silica quartz	14808-60-7		523.429	mg	575000	255331
				supplier	mold compound	phenolic resin	9003-35-4		18.206	mg	20000	8881
				supplier	mold compound	carbon black	1333-86-4		4.549	mg	4997	2219
Connections coating	Solder	21.136	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		21.136	mg	1000000	10310