



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 *	2017-09-22
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			
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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
Legal Statement	<p>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.</p>		

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
BZW04-376B	H2RH*TWB221D	A	ZA41	2017-09-22
Amount		UoM	Unit type	ST ECOPACK Grade
400.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
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	10.17 - 6.04 - 3.24	2	wire	
Comment	Package: DO 15			

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			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.03	DIE	85
Lead	4.42	SOFT SOLDER	11055

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	H2RH*TWB221D					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	Other inorganic materials	3.336	mg	supplier	die	Silicon (Si)	7440-21-3		3.146	mg	943046	7865
				supplier	metallization	Aluminium (Al)	7429-90-5		0.122	mg	36571	305
				supplier	metallization	Nickel (Ni)	7440-02-0		0.014	mg	4197	35
				supplier	Passivation	Silicon Oxide	7631-86-9		0.018	mg	5396	45
				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.012	mg	3597	30
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	1199	10
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.020	mg	5994	50
Leadframe	Copper & its alloys	280.900	mg	supplier	alloy	Copper (Cu)	7440-50-8		280.759	mg	999498	701898
				supplier	alloy	Zinc (Zn)	7440-66-6		0.028	mg	100	70
				supplier	alloy	Iron (Fe)	7439-89-6		0.028	mg	100	70
				supplier	alloy	Phosphorus (P)	12185-10-3		0.085	mg	302	213
Soft solder	Solder	4.780	mg	Supplier	soft solder	Silver (Ag)	7440-22-4		0.239	mg	50000	598
				Supplier	soft solder	Tin (Sn)	7440-31-5		0.119	mg	24895	295
				JIG R	soft solder	Lead (Pb)	7439-92-1	7a-Lead in high me	4.422	mg	925105	11055
Encapsulation	Other organic material	107.002	mg	Supplier	mold compound	silica fused	7631-86-9		42.800	mg	399993	107000
				Supplier	mold compound	silica quartz	14808-60-7		61.527	mg	575007	153818
				Supplier	mold compound	phenolic resin	9003-35-4		2.140	mg	20000	5350
				Supplier	mold compound	carbon black	1333-86-4		0.535	mg	5000	1338
Connections coating	Solder	3.982	mg	supplier	solder	Tin (Sn)	7440-31-5		3.982	mg	1000000	9955