



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 *	2017-02-09
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

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
	RRG(*VH90ABX	A	0959	2017-02-09
Amount	UoM	Unit type	ST ECOPACK Grade	
488.00	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NA	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	10.3-7.5-2.28	36	gull wing	
Comment	Package: PSSO36L TRIPLE PAD - MD valid for VNH9013Y ; VNH9013YTR			

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
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	0.07	die backside metal	133
Lead	2.87	soft solder	5889

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	RRG(*VH90ABX					
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	11.816	mg	supplier	die	Silicon (Si)	7440-21-3		10.945	mg	926286	22428
				supplier	metallization	Aluminium (Al)	7429-90-5		0.208	mg	17603	426
				supplier	metallization	Copper (Cu)	7440-50-8		0.075	mg	6347	154
				supplier	metallization	Titanium (Ti)	7440-32-6		0.016	mg	1355	33
				supplier	metallization	Tungsten (W)	7440-33-7		0.227	mg	19211	465
				supplier	Passivation	Silicon Oxide	7631-86-9		0.120	mg	10156	246
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	423	10
				supplier	back side metallization	Gold (Au)	7440-57-5		0.016	mg	1354	34
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.065	mg	5501	133
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.005	mg	423	10
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.134	mg	11341	275
				supplier	alloy	Copper (Cu)	7440-50-8		151.154	mg	984749	309742
				Leadframe	Copper & its alloys	153.495	mg	supplier	alloy	CopperPhosphorous (CuP)	12517-41-8	
supplier	metallization	Silver (Ag)	7440-22-4						2.190	mg	14268	4488
Soft solder	Solder	2.948	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	2.874	mg	974898	5889
				supplier	solder	Silver (Ag)	7440-22-4		0.044	mg	14925	90
				supplier	solder	Tin (Sn)	7440-31-5		0.030	mg	10177	61
Bonding wires	Other inorganic materials	4.111	mg	supplier	wire	Copper (Cu)	7440-50-8		4.111	mg	1000000	8424
				Encapsulation	Other Organic Materials	311.378	mg	supplier	mold compound	silica vitreous	60676-86-0	
supplier	mold compound	Biphenyl epoxy resin	85954-11-6						18.683	mg	60001	38285
supplier	mold compound	Phenol Resin	205830-20-2						12.455	mg	40000	25523
supplier	mold compound	epoxy resin	25068-38-6						6.228	mg	20001	12762
supplier	mold compound	carbon black	1333-86-4						0.623	mg	2001	1277
Connections coating	Solder	4.252	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	8713