



## Materials Declaration Form

<b>IPC Form Type *</b>	1752 Distribute	<b>Version</b>	2
<b>Sectionals *</b>	Material Info Manufacturing Info	<b>Subsectionals *</b>	A-D
<i>* : Required Field</i>			

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2017-12-04
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Rossana Bonaccorso	<b>Representative Title</b>	ADG MD Champion
<b>Representative Phone *</b>	Refer to Supplier Comment section	<b>Representative Email *</b>	Refer to Supplier Comment section
<b>Supplier Comment</b>	Online Technical Support - STMicroelectronics : <a href="http://www.st.com/web/en/support/support.html">http://www.st.com/web/en/support/support.html</a>		

**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			
<b>Supplier Acceptance *</b>	true	<b>Legal Declaration *</b>	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
	RRVC*VH49BC4	A	0959	2017-12-04
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	
QFP	10.3-7.5-2.28	36	gull wing	
Comment	Package: PwSSO36 DUAL CHIP - MDF valid for CPs: VNQ7004SYTR and VNQ7004SY			

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	0.06	Die	115
Lead	8.82	Soft solder	18072

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	RRVC*VH49BC4					
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	15.134	mg	supplier	die	Silicon (Si)	7440-21-3		13.954	mg	922030	28594
				supplier	metallization	Aluminium (Al)	7429-90-5		0.257	mg	16982	527
				supplier	metallization	Copper (Cu)	7440-50-8		0.096	mg	6343	197
				supplier	metallization	Titanium (Ti)	7440-32-6		0.029	mg	1916	59
				supplier	metallization	Tungsten (W)	7440-33-7		0.355	mg	23457	727
				supplier	Passivation	Silicon Nitride	12033-89-5		0.011	mg	728	23
				supplier	Passivation	Silicon Oxide	7631-86-9		0.182	mg	12026	373
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	330	10
				supplier	back side metallization	Gold (Au)	7440-57-5		0.014	mg	925	29
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.056	mg	3700	115
				supplier	back side metallization	Vanadium (V)	7440-62-2		0.004	mg	264	8
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.171	mg	11299	350
Leadframe	Copper & its alloys	161.652	mg	supplier	alloy	Copper (Cu)	7440-50-8		155.396	mg	961300	318434
				supplier	alloy	Iron (Fe)	7439-89-6		3.655	mg	22610	7490
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.220	mg	1360	451
				supplier	alloy	Zinc (Zn)	7440-66-6		0.191	mg	1182	391
				supplier	metallization	Silver (Ag)	7440-22-4		2.190	mg	13548	4488
Die attach	Other Organic Materials	0.471	mg	supplier	glue	Acrylic resin	9003-01-4		0.297	mg	630573	609
				supplier	glue	epoxy resin	25068-38-6		0.174	mg	369427	358
				JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	8.819	mg	974906	18072
Soft solder	Solder	9.046	mg	supplier	solder	Silver (Ag)	7440-22-4		0.136	mg	15034	279
				supplier	solder	Tin (Sn)	7440-31-5		0.091	mg	10060	186
				supplier	wire	Copper (Cu)	7440-50-8		3.312	mg	1000000	6787
Encapsulation	Other Organic Materials	294.133	mg	supplier	mold compound	Silica, vitreous	60676-86-0		254.131	mg	864000	520760
				supplier	mold compound	Epoxy Resin	25068-38-6		22.060	mg	75000	45205
				supplier	mold compound	Phenol Resin	29690-82-2		14.707	mg	50001	30137
				supplier	mold compound	3-Mercaptopropyl trimethoxysilane	4420-74-0		1.471	mg	5001	3014
				supplier	mold compound	Quartz	14808-60-7		0.882	mg	2999	1807
Connections coating	Solder	4.252	mg	supplier	mold compound	Carbon black	1333-86-4		0.882	mg	2999	1807
				supplier	solder alloy	Tin (Sn)	7440-31-5		4.252	mg	1000000	8713