



## 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  * : Required Field

Supplier Information			
<b>Company Name *</b>	STMicroelectronics	<b>Response Date *</b>	2016-05-09
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Authorized Representative *</b>	Floriana San Biagio	<b>Representative Title</b>	AMG 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
	HN4D*V829ABJ	A	Z7GA	2016-05-09
Amount	UoM	Unit type	ST ECOPACK Grade	
15.60	mg	Each	ECOPACK® 2	
	Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant ( in each organic material)		

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	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SOF	2x3x0.75	8	pin	
Comment	Package: 4D TDFN 8L 2X3X0.75 BODY PITCH 0.50; MDF valid for STTS2004B2DN3F			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Exemption Id.	Description

QueryList : REACH-17th December 2015				
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	HN4D*V829ABJ						
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	0.659	mg	supplier	die	Silicon (Si)	7440-21-3		0.625	mg	948407	40064	
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	7587	321	
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1517	64	
				supplier	metallization	Tungsten (W)	7440-33-7		0.007	mg	10622	449	
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	3035	128	
				supplier	Passivation	Silicon Oxide	7631-86-9		0.019	mg	28832	1218	
Leadframe	Copper & its alloys	6.798	mg	supplier	alloy	Copper (Cu)	7440-50-8		6.741	mg	991615	432115	
				supplier	alloy	Iron (Fe)	7439-89-6		0.008	mg	1177	513	
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.010	mg	1471	641	
				supplier	metallization	Nickel (Ni)	7440-02-0		0.034	mg	5001	2179	
				supplier	metallization	Precious metals	Palladium (Pd)	7440-05-3		0.004	mg	588	256
				supplier	metallization	Precious metals	Gold (Au)	7440-57-5		0.001	mg	148	64
Die attach	Other Organic Materials	0.034	mg	supplier	glue	Epoxy resin	120206-26-0		0.005	mg	147059	321	
				supplier	glue	Bisphenol A Glycidylether	25068-38-6		0.004	mg	117647	256	
				supplier	glue	fused silica	60676-86-0		0.024	mg	705882	1538	
				supplier	glue	additive	461-58-5		0.001	mg	29412	64	
Bonding wires	Precious metals	0.129	mg	supplier	wire	Gold (Au)	7440-57-5		0.129	mg	1000000	8269	
Encapsulation	Other Organic Materials	7.980	mg	supplier	mold compound	Silica, vitreous	60676-86-0		7.390	mg	926065	473718	
				supplier	mold compound	epoxy resin	85954-11-6		0.319	mg	39975	20449	
				supplier	mold compound	phenol resin	26834-02-6		0.239	mg	29950	15321	
				supplier	mold compound	carbon black	1333-86-4		0.032	mg	4010	2051	