



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 *	2016-07-11
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
STB11NK40ZT4	TLD2*EZ4466V	A	Z4XA	2016-07-11
Amount		UoM	Unit type	ST ECOPACK Grade
1380.00		mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		
1	245	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
DSO	10.2X9.15X4.5	2	gull wing	
Comment	Package: D2PAK			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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)

QueryList : REACH-20th June 2016				
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	TLD2*E2446V					
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	9.509	mg	supplier	die	Silicon (Si)	7440-21-3		9.179	mg	965296	6651
				supplier	metallization	Aluminium (Al)	7429-90-5		0.129	mg	13566	93
				supplier	Passivation	Silicon Nitride	12033-89-5		0.043	mg	4522	31
				supplier	Passivation	Silicon Oxide	7631-86-9		0.069	mg	7256	50
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.004	mg	421	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.063	mg	6625	46
Leadframe	Copper & its alloys	726.764	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.022	mg	2314	16
				supplier	Alloy	Copper(Cu)	7440-50-8		726.111	mg	999101	526167
				supplier	Alloy	Iron(Fe)	7439-89-6		0.508	mg	699	368
				supplier	Alloy	Silicon(Si)	7440-21-3		0.145	mg	200	106
Die attach	Other Organic Materials	6.860	mg	supplier	Solder	Silver(Ag)	7440-22-4		0.171	mg	24927	124
				supplier	Solder	Lead(Pb)	7439-92-1	7a-Lead in high me	6.552	mg	955102	4748
				supplier	Solder	Tin(Sn)	7440-31-5		0.137	mg	19971	99
Bonding wire	Other inorganic materials	1.481	mg	supplier	Bonding wire	Aluminium (Al)	7429-90-5		1.481	mg	1000000	1073
				supplier	Mold compound	Silicone dioxide (Fused Silica)	60676-86-0		555.143	mg	880450	402278
Encapsulation	Other Organic Materials	630.522	mg	supplier	Mold compound	Phenol, Polymer with 1,4-bis	26834-02-6		18.924	mg	30013	13713
				supplier	Mold compound	Phenol-hydroxybenzaldehyde novolac	106466-55-1		2.207	mg	3500	1599
				supplier	Mold compound	Carbon black	1333-86-4		2.523	mg	4001	1828
				supplier	Mold compound	Diglycidylether of Tetramethyl biphenol	85954-11-6		25.232	mg	40018	18284
				supplier	Mold compound	Polymer(phenyl glycidyl ether)-co-dicyclopent	119345-05-0		26.493	mg	42018	19198
Finishing	Other inorganic materials	4.864	mg	supplier	Connection coating	Tin(Sn)	7440-31-5		4.864	mg	1000000	3525