



# 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>	2018-04-06
<b>Company Unique ID</b>	NL 008751171B01		
<b>Contact Name *</b>	Refer to Supplier Comment section		Refer to Supplier Comment section
<b>Contact Phone *</b>	Refer to Supplier Comment section	<b>Contact Email *</b>	Refer to Supplier Comment section
<b>Authorized Representative *</b>	MDG MD CHAMPION	<b>Representative Title</b>	MDG 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	
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Legal Statement	
<b>Supplier Acceptance *</b>	true
<b>Legal Declaration *</b>	Standard
<b>Legal Statement</b>	<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
M24LR16E-RDW6T/2	PT6P*2ED31UB	A	3068	2018-04-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	34.00	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	
TSSOP	NAC	8	L Bend	
Comment	Package : 6P TSSOP 8 BODY 4.4 PITCH 0.65 0079397			

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	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-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	PT6P*2ED31UB				6999999.0	1000000.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	1.721	mg	supplier	die	Silicon (Si)	7440-21-3		1.657	mg	962812	48735
				supplier	metallization	Aluminium (Al)	7429-90-5		0.006	mg	3486	176
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	581	29
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	581	29
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2324	118
Lead-frame	M-011 Other inorganic materials	14.517	mg	supplier	Passivation	Silicon Oxide	7631-86-9		0.052	mg	30215	1529
				supplier	alloy	Copper (Cu)	7440-50-8		14.147	mg	974500	416079
				supplier	alloy	Iron (Fe)	7439-89-6		0.341	mg	23460	10017
				supplier	alloy	Zinc (Zn)	7440-66-6		0.017	mg	1200	512
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.012	mg	840	359
Lead-frame Coating	M-011 Other inorganic materials	0.062	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.058	mg	942580	1708
				supplier	coating	Palladium (Pd)	7440-05-3		0.002	mg	29665	54
				supplier	coating	Gold (Au)	7440-57-5		0.002	mg	27755	50
Die Attach	M-011 Other inorganic materials	0.049	mg	supplier	glue or soft solder	Poly(tetrafluoroethylene)	9002-84-0		0.025	mg	510000	735
				supplier	glue or soft solder	Synthetic resin	Proprietary		0.010	mg	200000	288
				supplier	glue or soft solder	Bismaleimide resin	Proprietary		0.010	mg	200000	288
				supplier	glue or soft solder	Titanium dioxide	13463-67-7		0.002	mg	40000	58
				supplier	glue or soft solder	Silica, amorphous	7631-86-9		0.002	mg	50000	72
Wires	M-011 Other inorganic materials	0.019	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.019	mg	1000000	546
Encapsulation	M-011 Other inorganic materials	17.632	mg	supplier	Moulding Compound	Epoxy Resin	Proprietary		1.434	mg	81340	42183
				supplier	Moulding Compound	Phenol Resin	Proprietary		0.956	mg	54227	28122
				supplier	Moulding Compound	Silica, vitreous	60676-86-0		15.070	mg	854672	443232
				supplier	Moulding Compound	Carbon black	1333-86-4		0.096	mg	5423	2812
				supplier	Moulding Compound	Bismuth (Bi)	7440-69-9		0.076	mg	4338	2250
Finishing	M-011 Other inorganic materials	0.001	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.001	mg	940951	17
				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	30507	1
				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	28542	1