



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D

** : Required Field*

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2018-04-06
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Giovanni Giapello	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


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			
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
STL40DN3LLH5	R2Y6*5H3AA52	A	SH1A	2018-04-06
	Amount	UoM	Unit type	ST ECOPACK Grade
	90	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	
Not Applicable	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	6x5x1	8	flat	
Comment	Package: PowerFLAT 5x6 double island WF			

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)

QueryList : California Prop65 list, dated 7th July 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	0.02	Die	178
Lead	2.29	Soft solder	25478

QueryList : REACH-7th July 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	R2Y6*5H3AA52					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	1.800	mg	supplier	die	Silicon (Si)	7440-21-3		1.620	mg	900000	18000
				supplier	metallization	Copper (Cu)	7440-50-8		0.112	mg	62222	1244
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	3333	67
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	556	11
				supplier	Passivation	Silicon Nitride	12033-89-5		0.006	mg	3333	67
				supplier	Passivation	Silicon Oxide	7631-86-9		0.032	mg	17778	356
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.001	mg	556	11
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.016	mg	8889	178
Leadframe	M-004 Copper and its alloys	41.990	mg	supplier	back side metallization	Silver (Ag)	7440-22-4		0.006	mg	3333	67
				supplier	alloy	Copper (Cu)	7440-50-8		40.975	mg	975828	455278
				supplier	alloy	Iron (Fe)	7439-89-6		0.964	mg	22958	10711
				supplier	alloy	Zinc (Zn)	7440-66-6		0.051	mg	1214	567
Soft solder	Solder	2.401	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.293	mg	955019	25478
				supplier	solder	Silver (Ag)	7440-22-4		0.060	mg	24990	667
				supplier	solder	Tin (Sn)	7440-31-5		0.048	mg	19991	533
Bonding wires	M-011 Other inorganic materials	0.123	mg	supplier	wire	Aluminium (Al)	7429-90-5		0.123	mg	1000000	1367
Bonding Ribbons	M-009 Other non-ferrous metals and	1.115	mg	supplier	Ribbon	Aluminium (Al)	7429-90-5		1.115	mg	1000000	12389
Encapsulation	M-011 Other inorganic materials	42.415	mg	supplier	mold compound	Silica, vitreous	60676-86-0		33.296	mg	785005	369956
				supplier	mold compound	epoxy resin	25068-38-6		5.514	mg	130001	61267
				supplier	mold compound	phenol resin	9003-35-4		2.545	mg	60002	28278
				supplier	mold compound	metal hydroxide	21645-51-2		0.848	mg	19993	9422
				supplier	mold compound	Carbon black	1333-86-4		0.212	mg	4999	2353
Connections coating	Solder	0.156	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.156	mg	1000000	1733