



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 *	2016-10-10
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Floriana San Biagio	Representative Title	AMG 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

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
	MQBF*UX58AB5	A	Z6HA	2016-10-10
Amount	UoM	Unit type	ST ECOPACK Grade	
1.94	mg	Each	ECOPACK® 2	

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	
QFN	1.2X1.3X0.45	6	No lead	
Comment	Package: A0W4 VFDFPN 6L 1.2X1.3X0.45 0.4 P; MDF valid for LDK220PU50R			

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
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description

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	MQBF*UX58AB5					
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	0.189	mg	supplier	die	Silicon (Si)	7440-21-3		0.166	mg	878307	85567
				supplier	metallization	Aluminium (Al)	7429-90-5		0.005	mg	26455	2577
				supplier	metallization	Tungsten (W)	7440-33-7		0.004	mg	21164	2062
				supplier	Passivation	Silicon Nitride	12033-89-5		0.001	mg	5291	515
				supplier	Passivation	Silicon Oxide	7631-86-9		0.008	mg	42328	4124
				supplier	polymer die coating	PIX1 Gamma-butyrolactone	96-48-0		0.005	mg	26455	2577
Leadframe	Copper & its alloys	0.454	mg	supplier	Alloy	Iron (Fe)	7439-89-6		0.001	mg	2203	515
				supplier	Alloy	Magnesium (Mg)	7439-95-4		0.001	mg	2203	515
				supplier	Alloy	Zinc (Zn)	7440-66-6		0.005	mg	11013	2577
				supplier	Alloy	Copper (Cu)	7440-50-8		0.431	mg	949339	222165
	Nickel (Ni)			supplier	metallization	Nickel (Ni)	7440-02-0		0.014	mg	30837	7216
	Precious metals			supplier	metallization	Palladium (Pd)	7440-05-3		0.001	mg	2203	515
	Precious metals			supplier	metallization	Gold (Au)	7440-57-5		0.001	mg	2203	515
	Die attach			Other Organic Materials	0.031	mg	supplier	glue	Epoxyde Bisphenol A Resin	25068-38-6		0.003
				supplier	glue	Diaminodiphenylsulfone	80-08-0		0.001	mg	32258	515
				supplier	glue	Ethoxyethoxy-ethyl Acetate	112-15-2		0.007	mg	225806	3608
				supplier	glue	Bisphenol A diglycidyl ether polymer	25036-25-3		0.004	mg	129032	2062
				supplier	glue	Glycol ether ester	Proprietary		0.001	mg	32258	515
				supplier	glue	Silica, vitreous	60676-86-0		0.009	mg	290323	4639
				supplier	glue	Aluminium oxide	1344-28-1		0.006	mg	193548	3093
Bonding wires	Precious metals	0.019	mg	supplier	wire	Gold (Au)	7440-57-5		0.019	mg	1000000	9794
Encapsulation	Other Organic Materials	1.249	mg	supplier	molding compound	Silica, vitreous	60676-86-0		1.157	mg	926341	596392
				supplier	molding compound	epoxy resin	85954-11-6		0.050	mg	40032	25773
				supplier	molding compound	phenol resin	26834-02-6		0.037	mg	29624	19072
				supplier	molding compound	carbon black	1333-86-4		0.005	mg	4003	2577