



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 *	2018-02-08
Company Unique ID	NL 008751171B01		
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 *	Floriana SAN BIAGIO	Representative Title	AMS 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
	MQYG*U188AB5	A	Z6HA	2018-02-08
Amount	UoM	Unit type	ST ECOPACK Grade	
24.4	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, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	3x3x0.95	6	flat	
Comment	Package: YG VFDFPN 6 3X3 0,95 PITCH; MDF valid for LD39200PUR			

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-15th January 2018				
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	MQYG*UI88A85				6000000.0	999961.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	M-011 Other inorganic materials	1.593	mg	supplier	die	Silicon (Si)	7440-21-3		1.494	mg	937853	61230
				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	11299	738
				supplier	metallization	Tungsten (W)	7440-33-7		0.015	mg	9416	615
				supplier	Passivation	Silicon Nitride	12033-89-5		0.004	mg	2511	164
				supplier	Passivation	Silicon Oxide	7631-86-9		0.031	mg	19460	1270
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.001	mg	628	41
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	2511	164
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.007	mg	4394	287
				supplier	polymer die coating	PIXI Gamma-butyrolactone	96-48-0		0.019	mg	11927	779
				Leadframe	M-004 Copper and its alloys	8.516	mg	supplier	alloy	Copper (Cu)	7440-50-8	
supplier	alloy	Iron (Fe)	7439-89-6						0.192	mg	22546	7869
JIG - R	alloy	Lead (Pb)	7439-92-1						0.001	mg	117	41
supplier	alloy	Phosphorus (P)	12185-10-3						0.002	mg	235	82
supplier	alloy	Zinc (Zn)	7440-66-6						0.010	mg	1174	410
supplier	metallization	Silver (Ag)	7440-22-4						0.086	mg	10099	3525
supplier	glue	Silver (Ag)	7440-22-4						0.073	mg	820225	2992
Die Attach	M-015 Other organic materials	0.089	mg	supplier	glue	Carbocyclic Acrylates	proprietary		0.009	mg	101124	369
				supplier	glue	Bismaleimide resin	35325-39-4		0.003	mg	33708	123
				supplier	glue	2-preponoic acid, 2-methyl	68586-19-6		0.003	mg	33708	123
				supplier	glue	Dicumyl peroxide	80-43-3		0.001	mg	11236	41
				supplier	wire	Copper (Cu)	7440-50-8		0.083	mg	1000000	3402
Bonding wires	M-011 Other inorganic materials	0.083	mg	supplier	wire	Copper (Cu)	7440-50-8		0.083	mg	1000000	3402
				supplier	mold compound	Silica Fused	60676-86-0		13.045	mg	937073	534631
				supplier	mold compound	Epoxy Resin	25068-38-6		0.417	mg	29955	17090
				supplier	mold compound	Phenol Resin	29690-82-2		0.418	mg	30027	17131
Encapsulation	M-015 Other organic materials	13.921	mg	supplier	mold compound	Carbon Black	1333-86-4		0.041	mg	2945	1680
				supplier	mold compound	Carbon Black	1333-86-4		0.041	mg	2945	1680
connections coating	M-011 Other inorganic materials	0.197	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.197	mg	1000000	8074