



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 *	2018-09-12
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
	V3JK*L964AB6	A	SH1A	2018-09-12
	Amount	UoM	Unit type	ST ECOPACK Grade
	1356	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
3	250	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	
DSO	10.2.x9.15x4.5	4	Through-hole	
Comment	JK TO220 - SINGLE GAUGE; MDF valid for L78M12CV			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 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 : REACH-27th June 2018				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
Lead	1000 ppm	1.57	solder	1154

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	V3JK*L964AB6				6000002.0	1000001.0
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	1.963	mg	supplier	die	Silicon (Si)	7440-21-3		1.901	mg	968416	1402
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	12226	18
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	4075	6
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	5604	8
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	1019	1
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	2038	3
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	6623	10
Leadframe	M-004 Copper and its alloys	762.214	mg	supplier	alloy	Copper (Cu)	7440-50-8		760.594	mg	997875	560910
				supplier	alloy	Iron (Fe)	7439-89-6		0.350	mg	459	258
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.640	mg	840	472
				supplier	metallization	Silver (Ag)	7440-22-4		0.630	mg	827	465
				supplier	solder	Lead (Pb)	7439-92-1	7a-Lead in high mel	1.565	mg	954851	1154
Soft solder	Solder	1.639	mg	supplier	solder	Silver (Ag)	7440-22-4		0.041	mg	25015	30
				supplier	solder	Tin (Sn)	7440-31-5		0.033	mg	20134	24
				supplier	wire	Copper (Cu)	7440-50-8		0.234	mg	1000000	173
Bonding wires	M-011 Other inorganic materials	0.234	mg	supplier	wire	Copper (Cu)	7440-50-8		0.234	mg	1000000	173
				supplier	mold compound	Silica, vitreous	60676-86-0		505.877	mg	870000	373066
				supplier	mold compound	Epoxy resin	Proprietary		58.147	mg	100000	42881
				supplier	mold compound	Phenol resin	Proprietary		14.537	mg	25001	10721
connections coating	Solder	8.482	mg	supplier	mold compound	Carbon Black	1333-86-4		2.907	mg	4999	2144
				supplier	solder alloy	Tin (Sn)	7440-31-5		8.482	mg	1000000	6255