



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 *	2017-10-12
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
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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
	CDK7*0148AE6	A	BO2A	2017-10-12
Amount	UoM	Unit type	ST ECOPACK Grade	
130.00	mg	Each	ECOPACK® 3	
	Comment	ECOPACK® 3 is STMicroelectronics trade name for ROHS compliant device without use of any ROHS exemption and without Halogen nor Antimony		

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	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
DSO	8.6x3.9x1.52	14	gull wing	
Comment	Package: K7 SO 14 .15 TO JEDEC MS-012; MDF valid for LM248DT			

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-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						Mfr Item Name	CDK7*0148AE6					
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	2.404	mg	supplier	die	Silicon (Si)	7440-21-3		2.362	mg	982529	18169
				supplier	metallization	Aluminium (Al)	7429-90-5		0.020	mg	8319	154
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	4160	77
				supplier	Passivation	Silicon Oxide	7631-86-9		0.012	mg	4992	92
				supplier	alloy	Copper (Cu)	7440-50-8		34.859	mg	918139	268146
Leadframe	Copper & its alloys	37.967	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.820	mg	21598	6308
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.049	mg	1291	377
				supplier	alloy	Zinc (Zn)	7440-66-6		0.043	mg	1133	331
				supplier	metallization	Nickel (Ni)	7440-02-0		0.460	mg	12116	3538
				supplier	metallization	Palladium (Pd)	7440-05-3		0.029	mg	764	223
				supplier	metallization	Gold (Au)	7440-57-5		0.012	mg	316	92
				supplier	metallization	Silver (Ag)	7440-22-4		1.695	mg	44644	13038
				supplier	glue	Silver (Ag)	7440-22-4		0.795	mg	907534	6115
Die attach	Other inorganic materials	0.876	mg	supplier	glue	acrylate	Proprietary		0.044	mg	50228	338
				supplier	glue	Methacrylate	Proprietary		0.035	mg	39954	269
				supplier	glue	acrylate	Proprietary		0.001	mg	1142	8
				SVHC	glue	NMP	872-50-4		0.001	mg	1142	8
				supplier	wire	Copper (Cu)	7440-50-8		0.127	mg	1000000	977
Bonding wires	Other inorganic materials	0.127	mg	supplier	wire	Copper (Cu)	7440-50-8		0.127	mg	1000000	977
				supplier	mold compound	Silica, vitreous	60676-86-0		75.970	mg	865992	584385
				supplier	mold compound	Epoxy Resin	Proprietary		6.580	mg	75006	50615
				supplier	mold compound	Phenol Resin	Proprietary		4.386	mg	49997	33738
				supplier	mold compound	Carbon black	1333-86-4		0.439	mg	5004	3377
Encapsulation	Other Organic Materials	87.726	mg	supplier	mold compound	Bismuth (Bi)	7440-69-9		0.351	mg	4001	2700
				supplier	mold compound	Bismuth (Bi)	7440-69-9		0.351	mg	4001	2700
connections coating	Solder	0.900	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.900	mg	1000000	6923