



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 *	2018-03-14
Contact Name *	Refer to Supplier Comment section		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

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
	CDO7*V912ARY	A	BO2A	2018-03-14
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	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	4.9x3.9x1.75	8	gull wing	
Comment	07 SO 08 .15 JEDEC; MDF valid for TSV912AIYDT			

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	CDO7*V912ARY				6000000.0	1000004.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die	Other inorganic materials	0.795	mg	supplier	die	Silicon (Si)	7440-21-3		0.768	mg	966038	9600
				supplier	metallization	Aluminium (Al)	7429-90-5		0.007	mg	8805	88
				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1258	13
				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1258	13
				supplier	Passivation	Silicon Nitride	12033-89-5		0.002	mg	2516	25
				supplier	Passivation	Silicon Oxide	7631-86-9		0.016	mg	20126	200
Leadframe	Copper & its alloys	30.328	mg	supplier	alloy	Copper (Cu)	7440-50-8		30.072	mg	991559	375900
				supplier	alloy	Iron (Fe)	7439-89-6		0.015	mg	495	188
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.024	mg	791	300
				supplier	metallization	Silver (Ag)	7440-22-4		0.217	mg	7155	2713
Die attach	Other Organic Materials	0.317	mg	supplier	glue	Silver (Ag)	7440-22-4		0.279	mg	880126	3488
				supplier	glue	Isobornyl Methacrylate	7534-94-3		0.016	mg	50473	200
				supplier	glue	Urethane Methacrylate Resin	5888-33-5		0.016	mg	50473	200
				supplier	glue	Acrylate polymer	87320-05-6		0.006	mg	18927	75
Bonding wires	Other inorganic materials	0.065	mg	supplier	wire	Copper (Cu)	7440-50-8		0.065	mg	1000000	813
Encapsulation	Other Organic Materials	47.437	mg	supplier	mold compound	Silica, vitreous	60676-86-0		41.080	mg	865991	513500
				supplier	mold compound	Epoxy Resin	25068-38-6		3.558	mg	75005	44475
				supplier	mold compound	Phenol Resin	29690-82-2		2.372	mg	50003	29650
				supplier	mold compound	Carbon black	1333-86-4		0.237	mg	4996	2963
				supplier	mold compound	Bismuth compound	7440-69-9		0.190	mg	4005	2375
connections coating	Solder	1.058	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.058	mg	1000000	13225