



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 *	2017-04-20
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Antonella Lanzafame	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 omprehensive 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
M41T00SM6F	BDZM*E6AA00S	B	BO2A	2017-04-20
Amount	UoM	Unit type	ST ECOPACK Grade	
80.00	mg	Each	ECOPACK® 1	
	Comment	ECOPACK® or ECOPACK® 1 is STMicroelectronics trade name for ROHS compliant devices		

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	
DSO	4.85x3.9x1.52	8	gull wing	
Comment	Package: O7 SO 08 .15 JEDEC			

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

ELV directive : 2000/53/EC amended 2016/774 _May 2016	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

Query : California Prop65 list, dated 27th January 2017			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.24	frame metallization	2963
Antimony trioxide	0.82	mold compound	10275

QueryList : Chinese RoHS , references : SJT 11364 – 2014 and GBT 26572 – 2014				
Query				Response
1 - Product(s) requires marking for the presence of restricted substances and must be marked with an Environmental Protection Use Period under China's Measures for Administration of the control of pollution by Electronic Information Products				FALSE
2 - Product(s) is eligible for marking with the e code under China's Measures for Administration of the control of pollution by Electronic Information Products				FALSE
Hasardous substance				
Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Hexavalent Chromium (Cr VI)	PBB & PBDE
O	O	O	O	X

QueryList : REACH-12th January 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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	BDZM*E6AA005				5000001.0	1000005.0
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	3.801	mg	supplier	die	Silicon (Si)	7440-21-3		3.735	mg	982636	46688
				supplier	metallization	Aluminium (Al)	7429-90-5		0.013	mg	3420	163
				supplier	metallization	Titanium (Ti)	7440-32-6		0.006	mg	1579	75
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	526	25
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	2631	125
				supplier	Passivation	Silicon Oxide	7631-86-9		0.035	mg	9208	438
				supplier	alloy	Copper (Cu)	7440-50-8		32.498	mg	959322	406225
Leadframe	Copper & its alloys	33.876	mg	supplier	alloy	Iron (Fe)	7439-89-6		0.764	mg	22553	9550
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.046	mg	1358	575
				supplier	alloy	Zinc (Zn)	7440-66-6		0.040	mg	1181	500
				supplier	metallization	Nickel (Ni)	7440-02-0		0.237	mg	6996	2963
				supplier	metallization	Palladium (Pd)	7440-05-3		0.015	mg	443	188
				supplier	metallization	Gold (Au)	7440-57-5		0.006	mg	177	75
				supplier	metallization	Silver (Ag)	7440-22-4		0.270	mg	7970	3375
Die attach	Other Organic Materials	1.130	mg	supplier	glue	Silver (Ag)	7440-22-4		0.847	mg	749558	10588
				supplier	glue	Epoxy Cresol Novolak	29690-82-2		0.278	mg	246018	3475
				supplier	glue	1-isopropyl-2,2-dimethyltrimethylene diisobut	6846-50-0		0.005	mg	4425	63
				supplier	wire	Gold (Au)	7440-57-5		0.100	mg	1000000	1250
Bonding wires	Precious metals	0.100	mg	supplier	wire	Gold (Au)	7440-57-5		0.100	mg	1000000	1250
				supplier	mold compound	Silica, vitreous	60676-86-0		32.874	mg	799990	410925
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		4.109	mg	99993	51363
				supplier	mold compound	phenol resin	9003-35-4		2.055	mg	50009	25688
				supplier	mold compound	Brominated epoxy resin	40039-93-8		0.822	mg	20003	10275
Encapsulation	Other Organic Materials	41.093	mg	supplier	mold compound	Antimony Trioxide	1309-64-4		0.822	mg	20003	10275
				supplier	mold compound	Carbon Black	1333-86-4		0.411	mg	10002	5138