



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 *	2020-12-09
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 *	marianna grasso	Representative Title	ADG 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
BTA10-600GPRG	7BVT*106OHL1	A	3068	2020-12-09
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900	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
Not Applicable	Not Applicable	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	CD00370313	

Package Designator	Size	Nbr of instances	Shape	
SIP	10.00,9.10,4.50	3	Through hole	
Comment	TO 220 I CLIP			

QueryList : RoHS Directive 2011/65/EU-July 2011 Annex II amended by Delegated 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)
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

QueryList : ELV directive : 2000/53/EC amended 2020/363_ March 2020	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	FALSE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	TRUE
Exemption Id.	Description
8e	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
10a	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: — glass in bulbs and glaze of spark plugs, — dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)

QueryList : California Prop65 list, dated 3rd January 2020			
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	1.39	die - leadframe	734
Lead	6.92	soft solder	3644
Lead-Borate Glass	1.50	die	790

QueryList : REACH-25th June 2020				
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	6.92	soft solder- soft solder 2	3643
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				FALSE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material
Lead	1000 ppm	3.071	Soft solder	845773
Lead	1000 ppm	3.852	Soft solder 2	920430

Responsible metals sourcing	
Query	Response
The component is containing at least one of the following metals : Cobalt , Gold , Tantalum , Tin , Tungsten.	true
The following metals are present is the component :	Gold, Tin,
This product is in the scope of the responsible metals sourcing, its compliance is covered by our company processes .	

Material Composition Declaration :						Mfr Item Name	7BVT*106OHL1					
note : Substance present with less 0.001mg will not be declared in this document												
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	8.896	mg	supplier	die	Silicon(Si)	7440-21-3		6.850	mg	770009	3606
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.099	mg	11129	52
				supplier	metallisation	Gold(Au)	7440-57-5		0.035	mg	3934	18
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.323	mg	36308	170
				supplier	passivation	Silicon oxide	7631-86-9		0.088	mg	9892	46
Leadframe	M-004 Copper and its alloys	1538.069	mg	JIG-R & California 65	glass	Lead-BorateGlass	65997-18-4	7c-I-Electrical and electronic	1.501	mg	168728	790
				supplier	alloy & coating	Copper(Cu)	7440-50-8		1536.069	mg	998700	808457
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.708	mg	460	373
				supplier	alloy & coating	Iron Phosphide(FeP)	26508-33-8		1.292	mg	840	680
				SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.071	mg	845773	1616
Soft solder	Solder	3.631	mg	supplier	solder	Tin(Sn)	7440-31-5		0.181	mg	49849	95
				supplier	solder	Antimony (Sb)	7440-36-0		0.361	mg	99422	190
				supplier	solder	dry flux residue	proprietary		0.018	mg	4957	9
				SVHC	solder	Lead(Pb)	7439-92-1	7a-Lead in high melting temper	3.852	mg	920430	2027
Soft solder 2	Solder	4.185	mg	supplier	solder	Silver(Ag)	7440-22-4		0.104	mg	24851	55
				supplier	solder	Tin(Sn)	7440-31-5		0.208	mg	49701	109
				supplier	solder	Flux residue	proprietary		0.021	mg	5018	11
				supplier	silica compound	Silica vitreous	60676-86-0		124.013	mg	741997	65270
Encapsulation	M-011 Other inorganic materials	167.134	mg	supplier	mold compound	Phenol resin	9003-35-4		8.357	mg	50002	4398
				supplier	mold compound	Epoxy Cresol Novolac	29690-82-2		18.385	mg	110002	9676
				supplier	mold compound	other	proprietary		15.042	mg	90000	7917
				supplier	mold compound	Carbon black	1333-86-4		1.337	mg	8000	704
				supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3323
connections coating	Solder	6.314	mg	supplier	ceramic	Alumina	1344-28-1		89.897	mg	641411	47314
				supplier	metallization	Nickel(Ni)	7440-02-0		1.071	mg	7642	564
				supplier	metallization	Molybdenum(Mo)	7439-98-7		49.187	mg	350947	25888
Clip	M-004 Copper and its alloys	31.616	mg	supplier	alloy	Copper(Cu)	7440-50-8		31.616	mg	1000000	16640