



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 *	2017-04-28
Contact Name *	Refer to "Supplier Comment" section	Contact Title	Refer to "Supplier Comment" section
Contact Phone *	Refer to "Supplier Comment" section	Contact Email *	Refer to "Supplier Comment" section
Authorized Representative *	Rossana Bonaccorso	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

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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
BTA08-600TWRG	7BVT*086DBL1	A	SH1A	2017-04-28
	Amount	UoM	Unit type	ST ECOPACK Grade
	1900.00	mg	Each	ECOPACK® 2

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable ; if coating is used o	Tin (Sn), matte, annealed	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10,15,5,4,5	3	Through-hole	
Comment	Package: TO 220 I CLIP			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-April 2015	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	false
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
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	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. piezoelectric devices

QueryList : REACH-12th January 2017				
Query				Response
The product 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	7BVT*086DBL1					
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	5.674	mg	supplier	die	Silicon (Si)	7440-21-3		5.047	mg	889496	2656
				supplier	metallization	Nickel (Ni)	7440-02-0		0.064	mg	11280	34
				supplier	metallization	Gold (Au)	7440-57-5		0.014	mg	2467	7
				supplier	glass coating	Glass : Aluminium Oxide (Al2O3)	1344-28-1		0.041	mg	7226	22
				supplier	glass coating	Lead-Borate Glass	65997-18-4	7c-I-Electrical and	0.365	mg	64329	192
				supplier	back side metallization	Gold (Au)	7440-57-5		0.006	mg	1057	3
Leadframe	Copper & its alloys	1612.63	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.137	mg	24145	72
				supplier	alloy	Copper (Cu)	7440-50-8		1607.234	mg	996654	845913
				supplier	alloy	Iron (Fe)	7439-89-6		0.74	mg	459	389
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		1.352	mg	838	712
				supplier	metallization	Nickel (Ni)	7440-02-0		3.304	mg	2049	1739
				supplier	alloy	Iron (Fe)	7439-89-6		0.74	mg	459	389
Soft solder	Solder	2.975	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.752	mg	925042	1448
				supplier	solder	Silver (Ag)	7440-22-4		0.149	mg	50084	78
				supplier	solder	Tin (Sn)	7440-31-5		0.074	mg	24874	39
Soft solder -2	Solder	2.798	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.378	mg	849893	1252
				supplier	solder	Antimony (Sb)	7440-36-0		0.28	mg	100071	147
				supplier	solder	Tin (Sn)	7440-31-5		0.14	mg	50036	74
Bonding wire	Other inorganic materials	31.625	mg	supplier	Slug + Trigger	Copper (Cu)	7440-50-8		31.625	mg	1000000	16645
Encapsulation	Other inorganic materials	148.784	mg	supplier	mold compound	Silica, vitreous	60676-86-0		120.516	mg	810006	63429
				supplier	mold compound	Phenol resin	9003-35-4		8.927	mg	60000	4698
				supplier	mold compound	Carbon black	1333-86-4		1.19	mg	7998	626
				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		15.176	mg	102000	7987
				supplier	mold compound	Metal hydroxide	21645-51-2		2.975	mg	19996	1566
Connections coating	Solder	6.314	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.314	mg	1000000	3325
Subelement	Ceramics / Glass	89.2	mg	supplier	Ceramic isolator	Nickel (Ni)	7440-02-0		1.07	mg	11996	563
				supplier	Ceramic isolator	Phosphorus (P)	12185-10-3		0.08	mg	897	42
				supplier	Ceramic isolator	Manganese (Mn)	7439-96-5		3.479	mg	39002	1831
				supplier	Ceramic isolator	Titanium (Ti)	7440-32-6		0.366	mg	4103	193
				supplier	Ceramic isolator	Molybdenum oxide	1313-27-5		4.46	mg	50000	2347
				supplier	Ceramic isolator	Aluminium Oxide (Al2O3)	1344-28-1		79.745	mg	894002	41971