

Materials Declaration Form

	1752					
Eorm Type *	Distribute	Version	2			
Sectionals *	Material Info	Subsectionals *	A-D			
Sectionals *		Subsectionals	Provide diality			
	Manufacturing into		* : Required Field			
Sumplier Information						
	CTR tieve all activo pice	I*	2014.06.06			
Company Name *	STMIcroelectronics	Response Date *	2014-06-06			
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 *	Antonella Lanzafame	Representative Title	AMS/IPD Materials Declaration Champion)			
Representative Phone *		Representative Email *	Refer to " Supplier Comment" section			
Supplier Comment	Online Technical Support - STMicroele	ectronics : http://www.st.com/internet/	com/support/online_tech_support.jsp			
While STMicroelectronics has endeave basis. STMicroelectronics disclaims al truth, accuracy, merchantability, fitne kind which could arise, directly or indi	ored to provide information which is a I warranties, express or implied relate ass for a particular purpose and non-in irectly, from the use or inability to use t	Iccurate and up to date, this document ed to this document and its contents, ir fringement. ST shall have no responsibi this document and/or its contents.	and its contents are provided on a strict 'as is' and 'as available' including but not limited to implied warranties of completeness, ility and assumes no liability for any cost, loss or damage of any			
Legal Statement						
Supplier Acceptance *	true	Legal Declaration *	Standard			
Legal Statement	Supplier certifies that it gathered t belief, as of the date that Supplier cor compliance of its products. Company form, and that Supplier may not independently verified information regarding their contributions to the p the Company and the Supplier en that agreement, including any warra the Supplier's liability and the Compa	the provided information and such in mpletes this form. Supplier acknowledge y acknowledges that Supplier may have have independently verified such in provided by others, Supplier agrees of part(s), and those certifications are at le ter into a written agreement with re- nty rights and/or remedies provided as ny's remedies for issues that arise regar	nformation is true and correct to the best of its knowledge and es that Company will rely on this certification in determining the e relied on information provided by others in completing this formation. However, in situations where Supplier has not that, at a minimum, its suppliers have provided certifications east as omprehensive as the certification in this paragraph. If spect to the identified part(s), the terms and conditions of part of that agreement, will be the sole and exclusive source of ding information the Supplier provides in this form.			

Product								
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date				
	8HST*TWU181D	А	BO2A	2014-06-06				
	Amount	UoM	Unit type	ST ECOPACK Grade				
	70.00	mg	Each	ECOPACK [®] 2				

Manufacturing information								
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles						
1	260	3						
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	life quamenter				
Not Applicable ; if coating is used o	Tin (Sn), matte	Copper Alloy		meradgmernee				

Package Designator	Size	Nbr of instances	Shape	
QFJ	4.14,2.76,1.94	1	J bend	
Comment	SMA; MD valid for CP: SMAJ154A-TR.			

QueryList : ROHS directive 2011/65/EU _ July 2011						
Query						
Product(s) meets EU RoHS requirement w	ithout 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)						
Product(s) meets EU RoHS requirements by application of the selected exemption(s)						
Product(s) does not meet EU RoHS requirements and is not under exemptions						
Product(s) is obsolete, no information is available						
Product(s) is unknown, no information is available						
Exemption Id.	escription					
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)					

QueryList : REACH-16th December 2013								
Query								
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH								
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product				

Material Composition Declaration				Mfr Item Name	8HST*TWU181D							
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
die (s)	Other inorganic materials	1.598	mg	supplier	die	Silicon (Si)	7440-21-3		1.561	mg	976846	22300
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.009	mg	5632	129
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.006	mg	3755	86
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.004	mg	2503	57
die (s)				supplier	back side metallization	Aluminium (Al)	7429-90-5		0.006	mg	3755	86
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.002	mg	1252	29
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.01	mg	6258	143
Leadframe	Copper & its alloys	30.021	mg	supplier	alloy	Copper (Cu)	7440-50-8		29.534	mg	983778	421914
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.03	mg	999	429
Leadframe				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.009	mg	300	129
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		0.445	mg	14823	6357
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.003	mg	100	43
Soft solder	Solder	0.742	mg	JIG R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	0.694	mg	935310	9914
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.011	mg	14825	157
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.037	mg	49865	529
Bonding wire	Other inorganic materials	11.481	mg	supplier	wire	Copper (Cu)	7440-50-8		11.481	mg	1000000	164014
encapsulation	Other Organic Materials	25.417	mg	supplier	mold compound	Silica, vitreous	60676-86-0		19.317	mg	760003	275957
encapsulation				supplier	mold compound	Phenol resin	9003-35-4		1.525	mg	59999	21786
encapsulation				supplier	mold compound	Carbon black	1333-86-4		0.203	mg	7987	2900
encapsulation				supplier	mold compound	Epoxy Cresol Novolak	29690-82-2		2.593	mg	102018	37043
encapsulation				supplier	mold compound	Metal hydroxide	Proprietary		0.508	mg	19987	7257
encapsulation				supplier	mold compound	Others	Proprietary		1.271	mg	50006	18157
connections coating	Solder	0.741	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		0.741	mg	1000000	10586