




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 *	2018-03-01
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 *	MDG MD CHAMPION	Representative Title	MDG 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 *
Legal Statement	<p>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.</p>

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STM32F4050GY6VTR	T5RI*413XXX2	B	996S	2018-03-01
	Amount	UoM	Unit type	ST ECOPACK Grade
	20.99	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
1	260	1		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Tin/Silver/Copper/Nickel (SACN12505)	NAC	NAC		

Package Designator	Size	Nbr of instances	Shape	
CHP	NAC	90	No lead	
Comment	Package : AOJW WLCSP 90 BALLS DIE 413 P 0.4 MM 8358811			

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-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	TSRI*413XXX2				9000000.0	1000047.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or dies	M-011 Other inorganic materials	14.222	mg	supplier	die	Silicon (Si)	7440-21-3		13.645	mg	959429	650071
				supplier	metallization	Aluminium (Al)	7429-90-5		0.028	mg	1969	1334
				supplier	metallization	Copper (Cu)	7440-50-8		0.244	mg	17157	11625
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	70	48
				supplier	metallization	Tantalum (Ta)	7440-25-7		0.079	mg	5555	3764
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	211	143
				supplier	metallization	Tungsten (W)	7440-33-7		0.002	mg	141	95
				supplier	Passivation	Silicon Nitride	12033-89-5		0.062	mg	4359	2954
				supplier	Passivation	Silicon Oxide	7631-86-9		0.158	mg	11110	7527
				supplier	Alloy	Ti	7440-32-6		0.003	mg	176471	143
Sputter 1	M-011 Other inorganic materials	0.017	mg	supplier	Alloy	Cu	7440-50-8		0.014	mg	823529	667
PBO1 HD8820	M-011 Other inorganic materials	0.066	mg	supplier	Polymer	4-Butyrolactone	96-48-0		0.060	mg	902230	2835
				supplier	Polymer	1-Methoxy-2-propyl acetate	108-65-6		0.006	mg	97770	307
RDL	M-011 Other inorganic materials	0.278	mg	supplier	Alloy	Cu	7440-50-8		0.278	mg	1000000	13244
Sputter 2	M-011 Other inorganic materials	0.017	mg	supplier	Alloy	Ti	7440-32-6		0.003	mg	176471	143
				supplier	Alloy	Cu	7440-50-8		0.014	mg	823529	667
PBO2 HD8820	M-011 Other inorganic materials	0.066	mg	supplier	Polymer	4-Butyrolactone	96-48-0		0.060	mg	902230	2835
				supplier	Polymer	1-Methoxy-2-propyl acetate	108-65-6		0.006	mg	97770	307
UBM	M-011 Other inorganic materials	0.323	mg	supplier	Alloy	Cu	7440-50-8		0.323	mg	1000000	15388
Solder ball	M-011 Other inorganic materials	5.405	mg	supplier	Solder	Sn	7440-31-5		5.310	mg	982424	252978
				supplier	Solder	Ag	7440-22-4		0.065	mg	12026	3097
				supplier	Solder	Cu	7440-50-8		0.027	mg	4995	1286
				supplier	Solder	Ni	7440-02-0		0.003	mg	555	143
BSC	M-011 Other inorganic materials	0.597	mg	supplier	Polymer	Polybutylene terephthalate (PBT)	25038-59-9		0.389	mg	651525	18533
				supplier	Polymer	Silica	Proprietary		0.117	mg	195458	5560
				supplier	Polymer	Proprietary Material-Other Epoxy resins	Proprietary		0.045	mg	75369	2144
				supplier	Polymer	Proprietary Material-Other Acrylic resins	Proprietary		0.045	mg	75369	2144
				supplier	Polymer	Carbon black	1333-86-4		0.001	mg	2278	65