



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 *	2017-02-28
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	FLORIANA SAN BIAGIO	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

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
	HZGR*LM10AAM	A	SH1A	2017-02-28
Amount	UoM	Unit type	ST ECOPACK Grade	
331.00	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		
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte, annealed	Copper Alloy		



Package Designator	Size	Nbr of instances	Shape	
SIP	6.085x6.61x2.3	3	gull wing	
Comment	Package: GR TO-252 DPAK Cu Wire; MDF valid for L78M10ABDT-TR			

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	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)

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 :						Mfr Item Name	HZGR*LM10AAM					
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	Other inorganic materials	1.929	mg	supplier	die	Silicon (Si)	7440-21-3		1.867	mg	967859	5640
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	12442	73
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	4147	24
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	5702	33
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	1037	6
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	2074	12
Leadframe	Copper & its alloys	183.855	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	6739	39
				supplier	alloy	Copper (Cu)	7440-50-8		183.616	mg	998700	554731
				supplier	alloy	Iron (Fe)	7439-89-6		0.085	mg	462	257
Soft solder	Other inorganic materials	1.632	mg	supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.154	mg	838	465
				supplier	alloy	Lead (Pb)	7439-92-1	7a-Lead in high me	1.558	mg	954657	4707
				supplier	solder	Silver (Ag)	7440-22-4		0.041	mg	25123	124
Bonding wires	Other inorganic materials	0.099	mg	supplier	solder	Tin (Sn)	7440-31-5		0.033	mg	20221	100
				supplier	wire	Copper (Cu)	7440-50-8		0.099	mg	1000000	299
				supplier	solder	Silver (Ag)	7440-22-4		0.041	mg	25123	124
Encapsulation	Other Organic Materials	142.440	mg	supplier	solder	Tin (Sn)	7440-31-5		0.033	mg	20221	100
				supplier	mold compound	Silica, vitreous	60676-86-0		124.635	mg	875000	376541
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-t	85954-11-6		5.698	mg	40003	17215
				supplier	mold compound	Epoxy Resin	25068-38-6		4.273	mg	29999	12909
				supplier	mold compound	phenol resin	29690-82-2		7.122	mg	50000	21517
connections coating	Solder	1.045	mg	supplier	mold compound	Carbon black	1333-86-4		0.712	mg	4999	2151
				supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3157