



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 *	2017-09-25
Company Unique ID	NL 008751171801		
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 *	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
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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
	HZGR*L964AB6	A	SH1A	2017-09-25
Amount	UoM	Unit type	ST ECOPACK Grade	
290.00	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		 life.augmented
1	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	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 L78M12ACDT-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-7th July 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	HZGR*L964A86				6000000.0	1000000.0
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	1.963	mg	supplier	die	Silicon (Si)	7440-21-3		1.901	mg	968416	6555
				supplier	metallization	Aluminium (Al)	7429-90-5		0.024	mg	12226	83
				supplier	Passivation	Silicon Nitride	12033-89-5		0.008	mg	4075	28
				supplier	Passivation	Silicon Oxide	7631-86-9		0.011	mg	5604	38
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	1019	7
				supplier	back side metallization	Gold (Au)	7440-57-5		0.004	mg	2038	14
Leadframe	M-004 Copper and its alloys	183.701	mg	supplier	back side metallization	Nickel (Ni)	7440-02-0		0.013	mg	6623	45
				supplier	alloy	Copper (Cu)	7440-50-8		183.616	mg	999537	633159
				supplier	alloy	Iron (Fe)	7439-89-6		0.085	mg	463	293
Soft solder	Solder	1.632	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	1.558	mg	954657	5372
				supplier	solder	Silver (Ag)	7440-22-4		0.041	mg	25123	141
				supplier	solder	Tin (Sn)	7440-31-5		0.033	mg	20221	114
Bonding wires	M-004 Copper and its alloys	0.099	mg	supplier	wire	Copper (Cu)	7440-50-8		0.099	mg	1000000	341
				supplier	mold compound	Silica, vitreous	60676-86-0		88.865	mg	875000	306431
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene bi	85954-11-6		4.062	mg	39996	14007
				supplier	mold compound	Epoxy Resin	Proprietary		3.047	mg	30002	10507
				supplier	mold compound	phenol resin	Proprietary		5.078	mg	50000	17510
Encapsulation	M-011 Other inorganic materials	101.560	mg	supplier	mold compound	Carbon black	1333-86-4		0.508	mg	5002	1752
				supplier	mold compound	Tin (Sn)	7440-31-5		1.045	mg	1000000	3603
connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3603