



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 *	2016-04-26
Contact Name *	Refer to Supplier Comment section		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		

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Legal Statement			
Supplier Acceptance *	true	Legal Declaration *	Standard
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
LD1117DT12TR	HZGR*KS12AA6	A	SHENZHEN B/E	2016-04-26
	Amount	UoM	Unit type	ST ECOPACK Grade
	290.00	mg	Each	ECOPACK2

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	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	6.085-6.61-2.3	3	GULL WING	
Comment	TO-252 DPAK Cu Wire			

QueryList : ROHS directive 2011/65/EU _ July 2011	
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
5 - Product(s) is obsolete, no information is available	false
6 - 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)

QueryList : REACH-17th December 2015				
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*KS12AA6					
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	2.449	mg	supplier	die	Silicon (Si)	7440-21-3		2.372	mg	968559	8179
				supplier	metallization	Aluminium (Al)	7429-90-5		0.030	mg	12249	103
				supplier	Passivation	Silicon Nitride	12033-89-5		0.010	mg	4083	34
				supplier	Passivation	Silicon Oxide	7631-86-9		0.014	mg	5717	48
				supplier	back side metallization	Chromium (Cr)	7440-47-3		0.002	mg	817	7
				supplier	back side metallization	Gold (Au)	7440-57-5		0.005	mg	2042	17
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.016	mg	6533	55
Leadframe	Copper & its alloys	183.855	mg	supplier	alloy	Copper (Cu)	7440-50-8		183.616	mg	998700	633159
				supplier	alloy	Iron (Fe)	7439-89-6		0.085	mg	462	293
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.154	mg	838	531
Soft solder	Solder	2.478	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	2.366	mg	954802	8159
				supplier	solder	Silver (Ag)	7440-22-4		0.062	mg	25020	214
				supplier	solder	Tin (Sn)	7440-31-5		0.050	mg	20178	172
Bonding wires	Other inorganic materials	0.214	mg	supplier	wire	Copper (Cu)	7440-50-8		0.214	mg	1000000	738
				supplier	wire	Copper (Cu)	7440-50-8		0.214	mg	1000000	738
Encapsulation	Other Organic Materials	99.959	mg	supplier	mold compound	Silica, vitreous	60676-86-0		87.464	mg	874999	301600
				supplier	mold compound	Tetramethyl-biphenyl-diyl-bis oxymethylene-b	EC 413-900-7		3.998	mg	39996	13786
				supplier	mold compound	Epoxy Resin	25068-38-6		2.999	mg	30002	10341
				supplier	mold compound	phenol resin	29690-82-2		4.998	mg	50001	17234
				supplier	mold compound	Carbon black	1333-86-4		0.500	mg	5002	1724
Connections coating	Solder	1.045	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		1.045	mg	1000000	3603