



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 *	28/08/2014
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 *	Patrizia Santoro	Representative Title	AMS & IPD Materials Declaration 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/internet/com/support/online_tech_support.jsp		

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
	HBDS*139L11J	A	BO2A	28/08/2014
Amount	UoM	Unit type	ST ECOPACK Grade	
27000.00	mg	Each	ECOPACK® 2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles	 life.augmented	
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy		
NAC	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	38x12x24.15	5	screw	
Comment	PACKAGE: ISOTOP-DBC-R4-VIS; MD valid for product STTH61R04TV2			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without 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)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
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-16th June 2014				
Query				Response
The product 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	HBD5*139L11J					
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	10.759	mg	supplier	die	Silicon (Si)	7440-21-3		10.434	mg	969793	386
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.065	mg	6041	2
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.019	mg	1766	1
die (s)				supplier	metallization	Nickel (Ni)	7440-02-0		0.043	mg	3997	2
die (s)				supplier	metallization	Gold (Au)	7440-57-5		0.016	mg	1487	1
die (s)				supplier	passivation	Gamma-butyrolactone	96-48-0		0.061	mg	5670	2
die (s)				supplier	passivation	Polyhydroxyamide	55295-98-2		0.027	mg	2510	1
die (s)				supplier	passivation	Alcooxsilane	proprietary		0.002	mg	186	0
die (s)				supplier	passivation	Aryl Siliclic Acid	proprietary		0.001	mg	93	0
die (s)				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.005	mg	465	0
die (s)				supplier	back side metallization	Gold (Au)	7440-57-5		0.015	mg	1394	1
die (s)				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.071	mg	6599	3
Leadframe	Copper & its alloys	7710.031	mg	supplier	alloy	Copper (Cu)	7440-50-8		7405.683	mg	960526	274285
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		230.946	mg	29954	8554
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		11.547	mg	1498	428
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		50.038	mg	6490	1853
Leadframe				supplier	metallization	Nickel (Ni)	7440-02-0		11.744	mg	1523	435
Leadframe				supplier	metallization	Phosphorus (P)	12185-10-3		0.073	mg	9	3
Soft solder	Solder	7.509	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	7.171	mg	954987	266
Soft solder				supplier	solder	Silver (Ag)	7440-22-4		0.188	mg	25037	7
Soft solder				supplier	solder	Tin (Sn)	7440-31-5		0.15	mg	19976	6
Bonding wire	Other inorganic materials	45.312	mg	supplier	wire	Aluminium (Al)	7429-90-5		45.312	mg	1000000	1678
Screw		7360	mg	supplier	Screw	Iron(Fe)	7439-89-6		7360	mg	1000000	272593
Nut		1061.9	mg	supplier	Nut	Nickel(Ni)	7440-02-0		1061.9	mg	1000000	39330
encapsulation		6114.45	mg	supplier	mold compound	Silica, vitreous	60676-86-0		5319.57	mg	870000	197021
encapsulation				supplier	mold compound	Epoxy resin	Proprietary		611.445	mg	100000	22646
encapsulation				supplier	mold compound	Phenol resin	Proprietary		152.862	mg	25000	5662
encapsulation				supplier	mold compound	Carbon Black	1333-86-4		30.573	mg	5000	1132
Connection isotop		4499.539	mg	supplier	Connection	Copper (Cu)	7440-50-8		4498.44	mg	999756	166609
Connection isotop				supplier	Connection coating	Nickel(Ni)	7440-02-0		1.031	mg	229	38
Connection isotop				supplier	Connection coating	Phosphorous(P)	12185-10-3		0.068	mg	15	3
subelement		190.5002	mg	supplier	Ceramic isolator	Nickel(Ni)	7440-02-0		2.1872	mg	11481	81
subelement				supplier	Ceramic isolator	Phosphorus (P)	12185-10-3		0.172	mg	903	6
subelement				supplier	Ceramic isolator	Manganese (Mn)	7439-96-5		7.433	mg	39018	275
subelement				supplier	Ceramic isolator	Titanium (Ti)	7440-32-6		0.782	mg	4105	29
subelement				supplier	Ceramic isolator	Molybdenum oxide	1313-27-5		9.53	mg	50026	353
subelement				supplier	Ceramic isolator	Alumina(AlO3)	1344-28-1		170.396	mg	894466	6311