



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 *	2014-07-25
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 *	Laurent Tosi	Representative Title	MMS MD CHAMPION
Representative Phone *	(+33) 442 685 795	Representative Email *	laurent.tosi@st.com
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/online_tech_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
M24256-DFMC6TG	CGZW*2456BKB	A	P1C7	2014-07-25
	Amount	UoM	Unit type	ST ECOPACK Grade
	16.00	mg	Each	ECOPACK® 2

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	Nicke/Palladium/Gold (Ni/Pd/Au)	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
QFN	2x3x0.6	8	flat	
Comment	UFDFPN 2x3x0.8 8L 0.5MM PITCH			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
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)	false
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 December 2013				
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	CGZW*2456BKB					
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	0.895	mg	supplier	die	Silicon (Si)	7440-21-3		0.848	mg	947486	53000
die (s)				supplier	metallization	Aluminium (Al)	7429-90-5		0.004	mg	4469	250
die (s)				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	1117	63
die (s)				supplier	metallization	Tungsten (W)	7440-33-7		0.001	mg	1117	63
die (s)				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.003	mg	3352	188
die (s)				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.038	mg	42458	2375
Lead-frame	Other inorganic materials	2.994	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.918	mg	974500	182353
Lead-frame				supplier	alloy	Iron (Fe)	7439-89-6		0.070	mg	23460	4390
Lead-frame				supplier	alloy	Zinc (Zn)	7440-66-6		0.004	mg	1200	225
Lead-frame				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.003	mg	840	157
Lead-frame Coating	Other inorganic materials	0.013	mg	supplier	coating	Nickel (Ni)	7440-02-0		0.012	mg	916800	748
Lead-frame Coating				supplier	coating	Palladium (Pd)	7440-05-3		0.001	mg	58700	48
Lead-frame Coating				supplier	coating	Gold (Au)	7440-57-5		0.000	mg	24500	20
Die Attach	Other inorganic materials	1.266	mg	supplier	glue or soft solder	Silver (Ag)	7440-22-4		1.108	mg	875000	69248
Die Attach				supplier	glue or soft solder	polymer	28630-26-4		0.101	mg	80000	6331
Die Attach				supplier	glue or soft solder	aniline	67784-74-1		0.013	mg	10000	791
Die Attach				supplier	glue or soft solder	epoxy resin	Proprietary		0.038	mg	30000	2374
Die Attach				supplier	glue or soft solder	Epoxy resin molecular weight <= 700	Proprietary		0.006	mg	5000	396
Wires	Other inorganic materials	0.036	mg	supplier	Bonding wire	Gold (Au)	7440-57-5		0.036	mg	1000000	2258
Encapsulation	Other inorganic materials	10.795	mg	supplier	Moulding Compound	vitrous silica	60676-86-0		9.252	mg	856982	578219
Encapsulation				supplier	Moulding Compound	Phenol resin	na		0.368	mg	34052	22975
Encapsulation				supplier	Moulding Compound	epoxy resin	na		0.420	mg	38916	26258
Encapsulation				supplier	Moulding Compound	carbon black	1333-86-4		0.021	mg	1946	1313
Encapsulation				supplier	Moulding Compound	2,2'-([3,3',5,5'-tetramethyl-1,1'-biphenyl]-4,4'	85954-11-6		0.210	mg	19458	13129
Encapsulation				supplier	Moulding Compound	Metal hydroxide	na		0.525	mg	48646	32822
Finishing	Other inorganic materials	0.000	mg	supplier	connections coating	Nickel (Ni)	7440-02-0		0.000	mg	916800	7
Finishing				supplier	connections coating	Palladium (Pd)	7440-05-3		0.000	mg	58700	0
Finishing				supplier	connections coating	Gold (Au)	7440-57-5		0.000	mg	24500	0