


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
M24M02-DRCS6TP/K	P7E1*2IM23KA	B	9989	2018-03-05
	Amount	UoM	Unit type	ST ECOPACK Grade
	6.50	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
NAC	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin/Silver/Copper (Sn/Ag/Cu)	NAC		

Package Designator	Size	Nbr of instances	Shape	
BGA	3.556x2.011x0.54	8	No lead	
Comment	Package : E1 WLCSP-R XL 8110533			

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	TRUE
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)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

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 : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	P7E1*2IM23KA				7000000.0	1000155.0
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	5.926	mg	supplier	die	Silicon (Si)	7440-21-3		5.737	mg	968107	883064
				supplier	metallization	Aluminium (Al)	7429-90-5		0.018	mg	3037	2771
				supplier	metallization	Cobalt (Co)	7440-48-4		0.001	mg	169	154
				supplier	metallization	Titanium (Ti)	7440-32-6		0.003	mg	506	462
				supplier	metallization	Tungsten (W)	7440-33-7		0.003	mg	506	462
				supplier	Passivation	Silicon Nitride	12033-89-5		0.012	mg	2025	1847
				supplier	Passivation	Silicon Oxide	7631-86-9		0.152	mg	25650	23396
Coating (Polyimide HD4100)	M-011 Other inorganic materials	0.006	mg	supplier	Plastics/Polymers	Proprietary PD-9 Resin	Proprietary		0.004	mg	666667	646
				supplier	Plastics/Polymers	Trifluoroacetic Anhydride	407-25-0		0.000	mg	63492	62
				supplier	Plastics/Polymers	Proprietary Tetraethylene glycol dimethacrylate	109-17-1		0.001	mg	142857	139
				supplier	Plastics/Polymers	4,4'-Oxydiphthalic Anhydride	1823-59-2		0.000	mg	63492	62
				supplier	Plastics/Polymers	2-Hydroxyethyl Methacrylate	868-77-9		0.000	mg	63492	62
Target (Cu target 99.995%)	M-011 Other inorganic materials	0.051	mg	supplier	Alloy	Copper	7440-50-8		0.051	mg	1000000	7850
Target 99.6% Ti End	M-011 Other inorganic materials	0.000	mg	supplier	Alloy	Titanium	7440-32-6		0.000	mg	1000000	46
Target AlCu 99.999%	M-011 Other inorganic materials	0.003	mg	supplier	Alloy	Aluminum	7429-90-5		0.003	mg	967742	462
				supplier	Alloy	Copper	7440-50-8		0.000	mg	32258	15
NIV Target 99.95%	M-011 Other inorganic materials	0.024	mg	supplier	Nickel (external applications only)	Nickel	7440-02-0		0.022	mg	916667	3386
				supplier	Alloy	Vanadium	7440-62-2		0.002	mg	83333	308
Solder Balls	M-011 Other inorganic materials	0.487	mg	supplier	Alloy	Tin	7440-31-5		0.465	mg	954825	71575
				supplier	Alloy	Silver	7440-22-4		0.020	mg	41068	3078
				supplier	Alloy	Copper	7440-50-8		0.002	mg	4107	308