


Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
STR710RZH6	S1X3*401ZZZX	A	998Z	30-10-2017
	Amount	UoM	Unit type	ST ECOPACK Grade
	250.00	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
3	260	3		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable; if coating is used or other bulk termination	NAC	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
FBGA	10x10x1.7	144	Square	
Comment	Package : X3 LFBGA 10x10x1.7 144 F12x12 0.8 7163385			

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-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 :						Mfr Item Name	S1X3*401ZZX				5999999.0	1000000.0
note : Substance present with less 0.001mg will not be declared in this document												
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	18.458	mg	Supplier	die	Silicon (Si)	7440-21-3		17.793	mg	963972	71172
				Supplier	metallization	Aluminium (Al)	7429-90-5		0.096	mg	5201	384
				Supplier	metallization	Cobalt (Co)	7440-48-4		0.002	mg	108	8
				Supplier	metallization	Titanium (Ti)	7440-32-6		0.025	mg	1354	100
				Supplier	metallization	Tungsten (W)	7440-33-7		0.018	mg	975	72
				Supplier	Passivation	Silicon Nitride	12033-89-5		0.054	mg	2926	216
				Supplier	Passivation	Silicon Oxide	7631-86-9		0.470	mg	25463	1880
Die Attach Epoxy_ABLEBOND 2025D	M-011 Other inorganic materials	1.165	mg	Supplier	Glass	Silica, amorphous, fused	60676-86-0		0.563	mg	482955	2251
				Supplier	Plastics/polymers	Bismaleimide Monomer	TS ref# 10049		0.364	mg	312500	1457
				Supplier	Plastics/polymers	Acrylate monomer	TS ref# 10050		0.099	mg	85227	397
				Supplier	Plastics/polymers	Epoxy resin	TS ref# 10042		0.099	mg	85227	397
				Supplier	Plastics/polymers	Acrylic resin	TS ref# 10051		0.040	mg	34091	159
Mold Compound_EME-G770LC_Sumif	M-011 Other inorganic materials	112.121	mg	Supplier	Plastics/polymers	Epoxy Resin A	Proprietary		2.252	mg	19836	9006
				Supplier	Plastics/polymers	Epoxy Resin B	Proprietary		2.252	mg	19836	9006
				Supplier	Plastics/polymers	Phenol Resin A	Proprietary		2.252	mg	19836	9006
				Supplier	Plastics/polymers	Phenol Resin B	Proprietary		2.252	mg	19836	9006
				Supplier	Glass	Silica(Amorphous) A	60676-86-0		81.038	mg	726171	324153
				Supplier	Glass	Silica(Amorphous) B	7631-86-9		19.204	mg	169180	76815
				Supplier	Metals	Aluminium and its compounds	Proprietary		2.252	mg	19836	9006
Wire_Wire AU 20um R_MKE	Bonding Wire	1.679	mg	Supplier	Additives	Carbon Black	1333-86-4		0.621	mg	5470	2484
				Supplier	Metals	Gold	7440-57-5		1.679	mg	1000000	6717
Solder Ball_96.55N/3AG/0.5CU 0.4M	Metals	35.709	mg	Supplier	Metals	Tin	7440-31-5		34.459	mg	965000	137835
				Supplier	Metals	Silver	7440-22-4		1.071	mg	30000	4285
Substrate_LFBGA 10X10 144LD 0.8P 2	M-011 Other inorganic materials	80.868	mg	Supplier	Metals	Copper	7440-50-8		0.179	mg	5000	714
				Supplier	Solder Mask	Cured Resin	Proprietary		7.699	mg	95201	30795
				Supplier	Solder Mask	Phthalocyanine blue	147-14-8		0.019	mg	232	75
				Supplier	Solder Mask	Organic pigment	Proprietary		0.019	mg	232	75
				Supplier	Solder Mask	Silica	7631-86-9 etc		1.150	mg	14218	4599
				Supplier	Solder Mask	Barium sulfate	7727-43-7		1.150	mg	14218	4599
				Supplier	Solder Mask	Talc	14807-96-6		1.150	mg	14218	4599
				Supplier	Solder Mask	Organic filler	Proprietary		1.150	mg	14218	4599
				Supplier	Solder Mask	Antifoamer and Leveling agent	Proprietary		0.162	mg	2009	650
				Supplier	Core Material	Flame Resistant Epoxy Resin	223769-10-6		4.771	mg	58994	19083
				Supplier	Core Material	Heat Resistant Resin	25722-66-1		4.771	mg	58994	19083
				Supplier	Core Material	Silica Filler	7631-86-9		9.560	mg	118215	38239
				Supplier	Core Material	Metal Hydroxide	Proprietary		2.603	mg	32189	10412
				Supplier	Core Material	glass cloth	65997-17-3		19.353	mg	239321	77414
				Supplier	Core Material	Epoxy	61788-97-4		4.771	mg	58994	19083
				Supplier	Core Material	Copper	7440-50-8		5.384	mg	66577	21536
				Supplier	Copper Plating	Copper	7440-50-8		15.613	mg	193073	62454
Supplier	Nickel Plating	Nickel	7440-02-0		1.366	mg	16896	5466				
Supplier	Gold Plating	Gold	7440-57-5		0.178	mg	2198	711				