pSemi™
A Murata Company

UltraCMOS®
GREEN

pSEMI MATERIAL DECLARATION FORM

Product:	**PE42443**
Ordering Codes:	**PE42443A-Z, PE42443B-Z**
Description:	**5G mMIMO AAS SP4T**
Package:	**20L 4x4 FCLGA**
Environmental Compliance	EU **RoHS** Directive 2011/65/EC and amendment 2015/863, **REACH** - EU ECHA SVHC, **Arsenic Free**, **JIG 101** - EIA/EICTA/JEITA, **Halogen Free** - IEC61249-2-21, **PFOS Free** - 2006/122/EC, **Antimony Trioxide Free**
Lead Finish	**NiPdAu**
Availability	**Now**

Component	Material	CAS Number	Weight (mg)	%	PPM
Die	Silicon	7440-21-3	7.255174	13.89%	138,875.48
Die	Phosphorus	7723-14-0	0.000037	0.00%	0.70
Die	Boron	7440-42-8	0.000037	0.00%	0.70
Die	Arsenic	7440-38-2	0.000037	0.00%	0.70
Die	Germanium	7440-56-4	0.000037	0.00%	0.70
Die	Indium	7440-74-6	0.000037	0.00%	0.70
Die	Cobalt	7440-48-4	0.000037	0.00%	0.70
Die	Tungsten	7440-33-7	0.001365	0.00%	26.13
Die	Copper	7440-50-8	0.041403	0.08%	792.52
Die	Tantalum	7440-25-7	0.001964	0.00%	37.59
Die	Aluminum	7429-90-5	0.000759	0.00%	14.53
Polyimide	Proprietary	-	0.000034	0.00%	0.66
UBM	Copper	7440-50-8	0.001086	0.00%	20.78
UBM	Titanium	7440-32-6	0.000543	0.00%	10.39
Pillar - Solder Cap	Tin	7440-31-5	0.075805	0.15%	1,451.04
Pillar - Solder Cap	Silver	7440-22-4	0.001390	0.00%	26.60
Pillar - Cu	Copper	7440-50-8	0.014653	0.03%	280.48
Pillar - Ni Barrier	Nickel	7440-02-0	0.000069	0.00%	1.32
Substrate	Copper	7440-50-8	3.345800	6.40%	64,043.90
Substrate	Gold	7440-57-5	0.008172	0.02%	156.42
Substrate	Palladium	7440-05-3	0.013194	0.03%	252.56
Substrate	Plating Ni	7440-02-0	0.307319	0.59%	5,882.57
Substrate	Thermosetting resin	Trade secret	3.040000	5.82%	58,190.40
Substrate	Glass cloth	65997-17-3	3.040000	5.82%	58,190.40
Substrate	Thermosetting resin	Trade secret	2.553600	4.89%	48,879.94
Substrate	Glass cloth	65997-17-3	1.702400	3.26%	32,586.62
Substrate	Plastics PAK	Trade secret	0.333747	0.64%	6,388.45
Substrate	Barium sulphate	7727-43-7	0.220228	0.42%	4,215.51
Substrate	Plastics EP	Trade secret	0.148332	0.28%	2,839.31
Substrate	Talc	14807-96-6	0.022704	0.04%	434.59
Substrate	Natural Ingredient	Trade secret	0.011352	0.02%	217.29
Substrate	Additives, not to declare	Trade secret	0.011352	0.02%	217.29
Substrate	Silicon dioxide	7631-86-9	0.004541	0.01%	86.92
Substrate	Pigment portion	Trade secret	0.004541	0.01%	86.92
Mold Compound	Solid Epoxy Resin	Trade secret	3.008055	5.76%	57,578.92
Mold Compound	Phenol Resin	Trade secret	2.105638	4.03%	40,305.24
Mold Compound	Carbon Black	1333-86-4	0.300805	0.58%	5,757.89
Mold Compound	Metal Hydroxide	Trade secret	0.902416	1.73%	17,273.68
Mold Compound	Amorphous silica	60676-86-0	22.861216	43.76%	437,599.78
Mold Compound	Crystalline silica	14808-60-7	0.902416	1.73%	17,273.68
Total Weight (mg)			**52.242294**	100.00%	1,000,000