pSemi™
A Murata Company

ULTRACMOS® GREEN

pSEMI MATERIAL DECLARATION FORM

Product:	**PE42443**
Ordering Codes:	**PE42443A-Z**
Description:	**5G mMIMO AAS SP4T**
Package:	**20FCLGA(4X4)**
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	6.518608	13.0985%	1,309.85
Die	Phosphorus	7723-14-0	0.000033	0.0001%	0.01
Die	Boron	7440-42-8	0.000033	0.0001%	0.01
Die	Arsenic	7440-38-2	0.000033	0.0001%	0.01
Die	Germanium	7440-56-4	0.000033	0.0001%	0.01
Die	Indium	7440-74-6	0.000033	0.0001%	0.01
Die	Cobalt	7440-48-4	0.000033	0.0001%	0.01
Die	Tungsten	7440-33-7	0.001227	0.0025%	0.25
Die	Copper	7440-50-8	0.037200	0.0747%	7.47
Die	Tantalum	7440-25-7	0.001765	0.0035%	0.35
Die	Aluminum	7429-90-5	0.000682	0.0014%	0.14
Polyimide	Proprietary	-	0.000031	0.0001%	0.01
UBM	Copper	7440-50-8	0.000400	0.0008%	0.08
UBM	Titanium	7440-32-6	0.000200	0.0004%	0.04
Pillar - Solder Cap	Tin	7440-31-5	0.027928	0.0561%	5.61
Pillar - Solder Cap	Silver	7440-22-4	0.000512	0.0010%	0.10
Pillar - Cu	Copper	7440-50-8	0.005398	0.0108%	1.08
Pillar - Ni Barrier	Nickel	7440-02-0	0.000025	0.0001%	0.01
Substrate	Bismaleimide	105391-33-1	1.298703	2.6096%	260.96
Substrate	Triazine resin	25722-66-1	1.293487	2.5991%	259.91
Substrate	Epoxy resin	9003-36-5	1.303919	2.6201%	262.01
Substrate	Inorganic Filler	21645-51-2	2.607837	5.2402%	524.02
Substrate	Continuous Filament Fiber Glass	65997-17-3	2.607837	5.2402%	524.02
Substrate	Copper	7440-50-8	3.911756	7.8603%	786.03
Substrate	Ni	7440-02-0	0.013039	0.0262%	2.62
Substrate	Pd	7440-57-5	0.001304	0.0026%	0.26
Substrate	Au	7440-57-5	0.001304	0.0026%	0.26
Mold Compound	Solid Epoxy Resin	Trade secret	3.013280	6.0549%	605.49
Mold Compound	Phenol Resin	Trade secret	2.109296	4.2384%	423.84
Mold Compound	Carbon Black	1333-86-4	0.301328	0.6055%	60.55
Mold Compound	Metal Hydroxide	Trade secret	0.903984	1.8165%	181.65
Mold Compound	Amorphous silica	60676-86-0	22.900928	46.0171%	4,601.71
Mold Compound	Crystalline silica	14808-60-7	0.903984	1.8165%	181.65
Total Weight (mg)			**49.766158**	100.00%	10,000