

PEREGRINE MATERIAL DECLARATION FORM

Product:	PE42641
Ordering Codes:	42641MLIBB-Z
Description:	SP4T RF Switch
Package:	16L 3 X3 QFN
RoHS Compliant	Yes
Lead Finish	NickelPalladiumGold
Availability	TBD

Component	Material	CAS Number	Weight (mg)	%	PPM
Die					
	Sapphire	1344-28-1	0.49396	1.54%	15,426
	Silicon	7440-21-3	0.00009	0.00%	3
	Silicon Dioxide	7631-86-9	0.00153	0.00%	42
	Silicon Nitride	12033-89-5	0.00009	0.00%	3
	Tungsten Silicide	12039-88-2	0.0001	0.00%	4
	Titanium	7440-33-6	0.00009	0.00%	3
	Titanium Nitride	25583-20-4	0.00026	0.00%	11
	Aluminium Alloy (98.5%-Al, 1%-Si, 0.5%-Cu)	7429-90-5	0.00117	0.00%	31
	Arsenic	7440-38-2	0.00004	0.00%	1
	Boron	7440-42-8	0.00004	0.00%	1
	Phosphorous	7723-14-0	0.00003	0.00%	1
Package					
Leadframe	Nickel(Ni)	7440-02-0	0.155	0.66%	6740
	Palladium(Pd)	5/3/7440	0.015	0.06%	662
	Gold(Au)	7440-57-5	0.002	0.00%	88
	Copper(Cu)	7440-50-8	11.9	52.52%	524,347
	Lead(Pb)	7439-92-1	0.004	0.02%	176
	Zinc(Zn)	7440-66-6	0.013	0.05%	574
	Phosphorus(P)	7723-14-0	0.01	0.04%	441
	Iron(Fe)	1309-37-1	0.291	1.28%	12,749
Gold Wire	Gold (Au)	7440-57-5	0.108000	0.47%	4758
Die Attach Adhesive	Di-ester resin	Trade Secret	0.017	0.00%	550
	Functionalized Ester	Trade Secret	0.043	0.18%	1868
	Polymeric compound	Trade Secret	0.017	0.08%	750
	Silver	7440-22-4	0.498	2.16%	21,389
Mold Compound	Epoxy Resin-1	Trade Secret	0.335	1.48%	14,792
	Epoxy Resin-2	Trade Secret	0.191	0.74%	8433
	Phenol Resin	Trade Secret	0.335	1.46%	14,682
	Silica	60676-86-4	7.686	32.73%	327,377
	Carbon Black	1333-86-4	0.019	0.08%	623
	Metal Hydroxide	Trade Secret	0.526	2.33%	22,325
	Others	Trade Secret	0.479	2.12%	21,150
Total Weight (mg)			23.150000	100.00%	1,000,000

PEREGRINE MATERIAL DECLARATION FORM

Product:	PE42641
Ordering Codes:	PE42641MLI; PE42641MLI-Z
Description:	SP4T RF Switch
Package:	16L 3X3 QFN
RoHS Compliant	Yes
Lead Finish	100% Matte Tin
Availability	TBD

Component	Material	CAS Number	Weight (mg)	%	PPM
Die					
	Sapphire:	1344-28-1	1.290152	3.71%	37,107
	Silicon	7440-21-3	0.000223	0.00%	6
	Silicon Dioxide	7631-86-9	0.003998	0.01%	115
	Silicon Nitride	12033-89-5	0.002353	0.01%	68
	Tungsten Silicide	12039-88-2	0.000257	0.00%	7
	Titanium	7440-33-6	0.000233	0.00%	7
	Titanium Nitride	25583-20-4	0.000668	0.00%	19
	Aluminium Alloy (98.5%-Al, 1%-Si, 0.5%-Cu)	7429-90-5	0.003063	0.01%	88
	Arsenic	7440-38-2	0.000116	0.00%	3
	Boron	7440-42-8	0.000094	0.00%	3
	Phosphorous	7723-14-0	0.000084	0.00%	2
Package					
Leadframe	Copper (Cu)	7440-50-8	11.070020	31.84%	318,389
	Iron (Fe)	7439-89-6	0.266816	0.77%	7,674
	Zinc (Zn)	7440-66-6	0.013625	0.04%	392
	Phosphorus (P)	7723-14-0	0.003406	0.01%	98
	Ag (weight estimate)	7440-22-4	0.134400	0.39%	3,866
Die Attach	Silver (65 - 85)	7440-22-4	0.073019	0.21%	2,100
	Epoxy Resin (15 - 25)	9003-36-5	0.019472	0.06%	560
	t-Butyl phenyl glycidyl ether (5-10)	3101-60-8	0.007301	0.02%	210
	Phenolic harder (1-2)	92-88-6	0.001460	0.00%	42
	Butyl cellosolve acetate (0.5-1.5)	112-07-2	0.000974	0.00%	28
Gold Wire	Au	7440-57-5	0.208400	0.60%	5,994
	Ag	7440-22-4	0.000036	0.00%	1
	Cu	7440-50-8	0.000036	0.00%	1
	Fe	7439-89-6	0.000072	0.00%	2
	Mg	7439-95-4	0.000036	0.00%	1
	Ca	7440-70-2	0.000036	0.00%	1
	Be	7440-41-7	0.000179	0.00%	5
100% Matte Tin Lead Finish	Sn	7440-31-5	0.630560	1.81%	18,136
Mold Compound	Silica Fused (75-95)	60676-86-0	6.000255	55.88%	558,812
	Epoxy Resin (1-5)	Trade secret	1.023585	2.94%	29,440
	Phenol Resin (1-5)	Trade secret	0.511793	1.47%	14,720
	Carbon Black (0.1-0.5)	1333-86-4	0.073113	0.22%	2,103
Total Weight (mg)			21.339835	100.00%	1,000,000