

## PEREGRINE MATERIAL DECLARATION FORM

<b>Product:</b>	PE4309
<b>Ordering Codes:</b>	4309-51, 4309-52
<b>Description:</b>	RF Digital Step Attenuator - 50 Ohm
<b>Package:</b>	24L 4X4 QFN
<b>RoHS Compliant</b>	Yes
<b>Lead Finish</b>	100% Matte Tin
<b>Availability</b>	Now

Component	Material	CAS Number	Weight (mg)	%	PPM
<b>Die</b>					
	Sapphire:	1344-28-1	1.776023	6.89%	68,941
	Silicon	7440-21-3	0.001965	0.00%	43
	Silicon Dioxide	7631-86-9	0.009773	0.02%	215
	Silicon Nitride	12033-89-5	0.004263	0.01%	94
	Tungsten Silicide	12039-88-2	0.000232	0.00%	5
	Titanium	7440-33-6	0.000422	0.00%	9
	Titanium Nitride	25583-20-4	0.001043	0.00%	23
	Aluminium Alloy (98.5%-Al, 1%-Si, 0.5%-Cu)	7429-90-5	0.008745	0.02%	192
	Arsenic	7440-38-2	0.000001	0.00%	1
	Boron	7440-42-8	0.000249	0.00%	6
	Phosphorous	7723-14-0	0.000150	0.00%	4
<b>Package</b>					
Leadframe	Copper (Cu)	7440-50-8	11.458200	27.34%	273,483
	Iron (Fe)	7439-89-6	0.300300	0.66%	6,590
	Zinc (Zn)	7440-66-6	0.015300	0.03%	336
	Phosphorus (P)	7723-14-0	0.003800	0.01%	83
	Ag (weight estimate)	7440-22-4	0.397800	0.87%	8,729
Die Attach	Silver (65 - 85)	7440-22-4	0.165700	0.36%	3,636
	Epoxy Resin (15 - 25)	9003-36-5	0.044200	0.10%	970
	t-Butyl phenyl glycidyl ether (5-10)	3101-60-8	0.016600	0.04%	364
	Phenolic harder (1-2)	92-88-6	0.003300	0.01%	72
	Butyl cellosolve acetate (0.5-1.5)	112-07-2	0.002200	0.00%	48
Gold Wire	Au	7440-57-5	0.260500	0.57%	5,716
	Ag	7440-22-4	0.000045	0.00%	1
	Cu	7440-50-8	0.000045	0.00%	1
	Fe	7439-89-6	0.000090	0.00%	2
	Mg	7439-95-4	0.000045	0.00%	1
	Ca	7440-70-2	0.000045	0.00%	1
	Be	7440-41-7	0.000224	0.00%	5
100% Matte Tin Lead Finish	Sn	7440-31-5	0.658600	1.45%	14,452
Mold Compound	Silica Fused (75-95)	60676-86-0	26.995000	57.65%	576,300
	Epoxy Resin (1-5)	Trade secret	0.861000	1.89%	18,894
	Phenol Resin (1-5)	Trade secret	0.861000	1.89%	18,894
	Carbon Black (0.1-0.5)	1333-86-4	0.086100	0.19%	1,889
<b>Total Weight (mg)</b>			<b>43.932960</b>	<b>100.00%</b>	<b>1,000,000</b>