


MATERIAL DECLARATION SHEET



Material Number	AMS22S			
Product Line	Analog Magnetic Servo			
Compliance Date	2011			
RoHS Compliant	yes	MSL	1	

No.	Construction Element (subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Housing	Aluminum 6061	8.752	Silicon	7440-21-3	0.7	0.403	57.55
				Iron	7439-89-6	0.34	0.196	
				Copper	7440-50-8	0.34	0.196	
				Manganese	7439-96-5	0.09	0.052	
				Magnesium	7439-95-4	0.9	0.518	
				Chromium	7440-47-3	0.09	0.052	
				Zinc	7440-66-6	0.05	0.029	
				Titanium	7440-32-6	0.02	0.012	
				Aluminum	7429-90-5	97.47	56.093	
2	Rotor	Nylon 6/6	0.375	Polyhexamethylene Adipamide	32131-17-2	66	1.627	2.47
				Glass fiber	65997-17-3	32	0.789	
				Molybdenum disulfide	1317-33-5	2	0.049	
3	Cover	Nylon 9T	1.076	Polyamide 9T	169284-22-4	43	3.042	7.08
				Brominated Polystyrene	88497-56-5	23	1.627	
				Glass Fiber	65997-17-3	34	2.406	

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4	Bearing	Bronze	1.741	Copper	7440-50-8	88.9	10.177	11.45
				Iron	7439-89-6	0.5	0.057	
				Tin	7440-31-5	10	1.145	
				Graphite	7440-66-6	0.1	0.011	
				Other	----	0.5	0.057	
5	PCB Panel	PCB-Copper	0.021	Copper	7440-50-8	100	2.728	2.73
		PCB-Laminate	0.383	Glass fiber	65997-17-3	55	1.500	
		Solder Resist	0.01	Phenol	26265-08-7	45	1.227	
				Bisphenol A, epichlorohydrin polymer	25068-38-6	56.9	1.552	
				Talc	14807-96-6	2	0.055	
				Barium Sulfate	7727-43-7	13.1	0.357	
				Tri-2, 1-ethanediy triacrylate	40220-08-4	2.8	0.076	
				Quartz	14808-60-7	20	0.546	
				Hexabromo-decachloro-phthalocyaninato	14302-13-7	0.4	0.011	
				Cyanoguanidine	461-58-5	0.1	0.003	
		Further Additives	----	4.7	0.128			
		PCB-Metals	0.00083	Gold	7440-57-5	3.8	0.104	
				Nickel	7440-02-0	96.2	2.624	
6	Capacitors X 3	Ceramic Body	0.0053	Barium	7440-39-3	48.5	0.057	0.12
				Oxygen	7782-44-7	20.2	0.024	
				Titanium	7440-32-6	16.8	0.020	
				Nickel	7440-02-0	13.7	0.016	
				Misc, not to declare	----	0.8	0.001	
		Soldering Termination	0.00068	Copper	7440-50-8	47	0.055	
				Nickel	7440-02-0	12.1	0.014	
				Tin	7440-31-5	37.4	0.044	
				Misc, not to declare	----	3.5	0.004	

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7	ASIC	Leadframe	0.024	Copper	7440-50-8	99.9	0.730	0.73
				Zirconium	7440-67-7	0.1	0.001	
		Die	0.0026	Silicon	7440-21-3	99.99	0.731	
				Misc, not to declare	----	0.001	0.000	
		Die Attach Adhesive	0.0011	Silver	7440-22-4	80	0.584	
				Epoxy Resin	----	15	0.110	
				Additives, not to declare	----	5	0.037	
		Bonding Wire	0.0003	Arsenic	7440-38-2	0.0007	0.000	
				Gold	7440-57-5	99.99	0.731	
				Bismuth	7440-69-9	0.0005	0.000	
				Chromium	7440-47-3	0.00007	0.000	
				Copper	7440-50-8	0.0013	0.000	
				Iron	7439-89-6	0.0005	0.000	
				Magnesium	7439-95-4	0.0008	0.000	
				Manganese	7439-96-5	0.00008	0.000	
				Nickel	7440-02-0	0.00008	0.000	
				Lead	7439-92-1	0.0005	0.000	
				Palladium	7440-05-3	0.0013	0.000	
				Silicon	7440-21-3	0.0012	0.000	
				Tin	7440-31-5	0.0003	0.000	
		Lead Finish	0.0014	Carbon	7440-44-0	0.505	0.004	
				Sulfur	7704-34-9	0.02	0.000	
				Lead	7439-92-1	0.015	0.000	
Tin	7440-31-5			99.46	0.727			
Encapsulation	0.0817	Carbon Black	1333-84-4	0.3	0.002			
		Silica, Vitreous	60676-86-0	87.7	0.641			
		Epoxy Resin	----	5	0.037			
		Phenolic Resin	----	5	0.037			

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				Formaldehyde, Polymer w/ (chloromethyl) oxirane and 2- methylphenol	29690-82-2	2	0.015	
		Plating	0.000006	Cobalt	7440-48-4	85	0.621	
				Silicon	7440-21-3	6	0.044	
				Iron	7439-89-6	3	0.022	
				Manganese	7439-96-5	4	0.029	
				Molybdenum	7439-98-7	2	0.015	
8	Magnet	NdFeB Sintered Magnet	0.516	Neodymium	7440-00-8	31	1.052	3.39
				Iron	7439-89-6	67.5	2.290	
				Boron	7440-42-8	1	0.034	
		Plating	0.03	Nickel	7440-02-0	0.5	0.017	
9	Shaft	303 Stainless Steel	1.877	Carbon	7440-44-0	0.15	0.019	12.34
				Chromium	7440-47-3	18	2.222	
				Iron	7439-89-6	68.9	8.504	
				Manganese	7439-96-5	2	0.247	
				Molybdenum	7439-98-7	0.6	0.074	
				Nickel	7440-02-0	9	1.111	
				Phosphorus	7723-14-0	0.2	0.025	
				Sulfur	7704-34-9	0.15	0.019	
				Silicon	7440-21-3	1	0.123	
10	Terminal X 3	Brass C26000	0.087 X 3	Copper	7440-50-8	70	1.253	1.79
				Zinc	7440-66-6	30	0.537	
		Plating	0.005 x 3	Tin	7440-31-5	1	0.018	
11	Retaining Clip	Carbon Steel SAE1060	0.131	Iron	7439-89-6	98.36	0.847	0.86
				Carbon	7440-44-0	0.65	0.006	
				Manganese	7439-96-5	0.9	0.008	
				Phosphorus	7723-14-0	0.04	0.000	
				Sulfur	7704-34-9	0.05	0.000	

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12	E-Ring	PH-15-7MO Stainless Steel	0.138	Iron	7439-89-6	69.6	0.632	0.91
				Carbon	7440-44-0	0.6	0.005	
				Manganese	7439-96-5	0.8	0.007	
				Phosphorus	7723-14-0	0.04	0.000	
				Sulfur	7704-34-9	0.04	0.000	
				Silicon	7440-21-3	1	0.009	
				Chromium	7440-47-3	16	0.145	
				Nickel	7440-02-0	7.75	0.070	
				Molybdenum	7439-98-7	3	0.027	
				Aluminum	7429-90-5	1.5	0.014	
13	Solder Paste	Solder	0.01	Tin	7440-31-5	88	0.058	0.07
				Silver	7440-22-4	7	0.005	
				Copper	7440-50-8	5	0.003	
14	Epoxy	UV Epoxy	0.01	Cycloaliphatic epoxide	trade secret	40	0.026	0.07
				Polyetherpolyol resins	39072-02-1	15	0.010	
				Silicon dioxide	67762-90-7	25	0.016	
				Hydrated alumina	21645-51-2	20	0.013	
15	Coating	Conformal Coating	0.02	2-Butanone Oxime	96-29-7	1	0.001	0.13
				Naphtha	64742-48-9	2.5	0.003	
				Isoparaffinic Hydrocarbon	90622-57-4	50	0.066	
				Cobalt Octoate	136-52-7	0.5	0.001	
Total weight			15.21					

This Document was updated on: Aug 29, 2011

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Per [Product Update Memo SC2436](#), this MDS is under revision. The updated version will be posted soon.