



# Spektrum™ Servo Reference Chart



Air 									
Name	Part #	Description	Application	Key Features	Torque	Speed	Dimensions	Weight	Gears
AS2000	SPMAS2000	Spektrum 1.5-Gram Linear Servo	Ultra Micros	<ul style="list-style-type: none"> <li>Weighing only 1.5 grams, this servo is incredibly lightweight</li> <li>Can be used with AR6400 and AR6400L receivers</li> <li>7.4mm servo throw allows for aerobatic flight performance</li> </ul>	2.8 oz-in (0.079 kg-cm) @ 3.7V	0.14 sec/60° @ 3.7V	0.60 x 0.87 x 0.33 in	0.05 oz (1.5 g)	Nylon
AS2000L	SPMAS2000L	1.7-Gram Linear Long Throw Servo	Ultra Micros	<ul style="list-style-type: none"> <li>Weighing only 1.7 grams, this servo is incredibly lightweight</li> <li>Can be used with AR6400 and AR6400L receivers</li> <li>9.1mm servo throw allows for more aggressive 3D flight performance</li> </ul>	2.8 oz-in @ 3.7V (0.079 kg-cm) @ 3.7V	0.14 sec/60° @ 3.7V	0.66 x 0.87 x 0.33 in	0.06 oz (1.7 g)	Nylon
AS2000LBB	SPMAS2000LBB	1.9-Gram Linear Long Throw BB Servo	Ultra Micros	<ul style="list-style-type: none"> <li>Compact footprint</li> <li>JST-SHR connector type</li> <li>Two ball bearings</li> <li>9.1mm servo throw</li> </ul>	2.8 oz-in @ 3.7V (0.079 kg-cm) @ 3.7V	0.14 sec/60° @ 3.7V	0.66 x 0.87 x 0.33 in	0.07 oz (1.9 g)	Nylon
DSP60	SPMDS60	6.0-Gram Super Sub-Micro Digital Programmable Servo	Minis/Micros	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Universal connector</li> <li>Programmable (Airplane, Helicopter, Tail-Rotor)</li> <li>Includes complete mounting hardware</li> </ul>	13.2 oz-in (0.95 kg-cm) @ 4.8V	0.09 sec/60° @ 4.8V	0.9 x 0.39 x 0.74 in	0.21 oz (6.0 g)	Nylon
DSP60J	SPMDS60J	6.0-Gram Super Sub-Micro Digital Programmable Servo JST	Minis/Micros	<ul style="list-style-type: none"> <li>Digital precision</li> <li>JST-ZHR connector</li> <li>Programmable (Airplane, Helicopter, Tail-Rotor)</li> <li>Includes complete mounting hardware</li> </ul>	13.2 oz-in (0.95 kg-cm) @ 4.8V	0.09V sec/60° @ 4.8V	0.9 x 0.39 x 0.74 in	0.21 oz (6.0 g)	Nylon
DSP75	SPMDS60J	7.5-Gram Super Sub-Micro Digital Programmable Servo	Minis/Micros	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Universal connector</li> <li>Programmable (Airplane, Helicopter, Tail-Rotor)</li> <li>Includes complete mounting hardware</li> <li>Includes an assortment of servo arms</li> </ul>	19.0 oz-in (1.37 kg-cm) @ 4.8V	0.11V sec/60° @ 4.8V	0.9 x 0.45 x 0.94 in	0.26 oz (7.5 g)	Nylon
A3010	SPMSA3010	Sub-Micro Digital High-Speed Aircraft Servo	Minis/Park Flyer	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>High-speed</li> </ul>	18.0 oz-in (1.30 kg-cm) @ 4.8V; 22 oz-in (1.60 kg-cm) @ 6.0V	0.09 sec/60° @ 4.8V; 0.08 sec/60° @ 6.0V	0.93 x 0.43 x 1.0 in	0.3 oz (8.6 g)	Nylon
A3020	SPMSA3020	Sub-Micro Digital High-Speed Aircraft Metal Gear Servo	Minis/Park Flyer	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Metal gears</li> <li>High-speed</li> </ul>	18.0 oz-in (1.30 kg-cm) @ 4.8V; 22 oz-in (1.60 kg-cm) @ 6.0V	0.09 sec/60° @ 4.8V; 0.08 sec/60° @ 6.0V	0.93 x 0.43 x 1.0 in	0.44 oz (12.6 g)	Metal
A3030	SPMSA3030	Sub-Micro Digital High-Torque Aircraft Servo	Minis/Park Flyer	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Lightweight plastic gears</li> </ul>	23.0 oz-in (1.66 kg-cm) @ 4.8V; 28 oz-in (2.0 kg-cm) @ 6.0V	0.12 sec/60° @ 4.8V; 0.10 sec/60° @ 6.0V	0.93 x 0.43 x 1.0 in	0.3 oz (8.6 g)	Nylon
A3040	SPMSA3040	Sub-Micro Digital High-Torque Aircraft Metal Gear Servo	Minis/Park Flyer	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Metal gears</li> <li>High-torque</li> </ul>	23.0 oz-in (1.7 kg-cm) @ 4.8V; 28 oz-in (2.0 kg-cm) @ 6.0V	0.12 sec/60° @ 4.8V; 0.10 sec/60° @ 6.0V	0.93 x 0.43 x 1.0 in	0.44 oz (12.6g)	Metal
A4000	SPMSA4000	Micro Aircraft Servo	15-25 Size Plane	<ul style="list-style-type: none"> <li>Low deadband</li> <li>Lightweight plastic gears</li> <li>Class leading performance</li> </ul>	35.0 oz-in (2.50 kg-cm) @ 4.8V; 42 oz-in (3.0 kg-cm) @ 6.0V	0.14 sec/60° @ 4.8V; 0.11 sec/60° @ 6.0V	1.10 x 0.50 x 1 in	0.6 oz (17.2 g)	Nylon
A4010	SPMSA4010	Micro Digital Aircraft Servo	15-25 Size Plane	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Single ball bearing support</li> <li>Lightweight plastic gears</li> <li>Low deadband</li> <li>Class leading performance</li> </ul>	35.0 oz-in (2.50 kg-cm) @ 4.8V	0.14 sec/60° @ 4.8V; 0.11 sec/60° @ 6.0V	1.10 x .50 x 1 in	0.6 oz (17.2 g)	Nylon
A4020	SPMSA4020	Micro Digital Aircraft Metal Gear Servo	15-25 Size Plane	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Metal Gears</li> <li>Single ball bearing support</li> <li>Class leading performance</li> </ul>	35.0 oz-in (2.50 kg-cm) @ 4.8V; 42.0 oz-in (3.00 kg-cm) @ 6.0V	0.14 sec/60° @ 4.8V; 0.11 sec/60° @ 6.0V	1.10 x .50 x 1 in	0.7 oz (20.0 g)	Metal
A5030	SPMSA5030	Mini Digital Aircraft Servo	25-32 Size Plane	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Dual ball bearing support</li> <li>Lightweight plastic gears</li> <li>Coreless motor</li> </ul>	50 oz-in (3.6 kg-cm) @ 4.8V; 66 oz-in (4.8 kg-cm) @ 6.0V	0.12 sec/60° @ 4.8V; 0.10 sec/60° @ 6.0V	1.3 x 0.58 x 1.1 in	0.7 oz (21.6 g)	Nylon
A5040	SPMSA5040	Mini Digital Aircraft Metal Gear Servo	25-32 Size Plane	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Low deadband</li> <li>Dual ball bearing support</li> <li>Tough metal gears</li> <li>Coreless motor</li> </ul>	50.0 oz-in (3.60 kg-cm) @ 4.8V; 66 oz-in (4.80 kg-cm) @ 6.0V	0.12 sec/60° @ 4.8V; 0.10 sec/60° @ 6.0V	1.3 x 0.58 x 1.1 in	0.7 oz (21.6 g)	Nylon
DS821	SPM3702	High-Torque Digital Servo Sport	1.2 Glow/50 Size Electric	<ul style="list-style-type: none"> <li>Same size as standard servo</li> <li>Ball bearing-supported output shaft</li> </ul>	72.0 oz-in (5.2 kg-cm) @ 4.8V; 88.0 oz-in (6.3 kg-cm) @ 6.0V	0.19 sec/60° @ 4.8V; 0.15 sec/60° @ 6.0V	1.5 x 0.74 x 1.47 in	1.5 oz (42.0 g)	Metal
A6000	SPMSA6000	Digital Aircraft Servo - Sport	40-size to 1/4-scale	<ul style="list-style-type: none"> <li>90 oz-in torque makes this powerful enough for demanding applications</li> <li>Dual ball bearings provide less resistance for higher performance and longer life</li> <li>Fast response rate— 0.14 sec/60° at 6.0V</li> </ul>	90.0 oz-in (6.48 kg-cm) @ 6.0V	0.14 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.5 oz (42.0 g)	Nylon
A6010	SPMSA6010	Digital Aircraft Servo	40-size to 1/4-scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>100 oz-in of torque</li> <li>Dual ball bearings provide less resistance for higher performance and longer life</li> </ul>	100.0 oz-in (7.20 kg-cm) @ 6.0V	0.14 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.7 oz (49.0 g)	Metal
A6020	SPMSA6020	Digital Aircraft Servo - High-Torque	40-size to 30% scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>146 oz-in of torque affords impressive performance in the toughest applications</li> <li>Heavy-duty metal gear train</li> </ul>	146.0 oz-in (10.50 kg-cm) @ 6.0V	0.19 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.7 oz (49.0 g)	Metal
A6030	SPMSA6030	Digital Aircraft Servo - High-Torque	Giant Scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>278 oz-in of torque at 6.0V provides an incredible amount of power in demanding applications</li> <li>Coreless motor for extended motor life and smooth operation</li> </ul>	278.0 oz-in (20.00 kg-cm) @ 6.0V	0.15 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.8 oz (52.4 g)	Titanium
A6050	SPMSA6050	Standard Aircraft Servo	40-60 Size Plane	<ul style="list-style-type: none"> <li>58 oz-in of torque</li> <li>Class leading specifications</li> <li>Standard size</li> </ul>	47.0 oz-in (3.40 kg-cm) @ 4.8V; 58.0 oz-in (4.20 kg-cm) @ 6.0V	0.16 sec/60° @ 4.8V; 0.14 sec/60° @ 6.0V	1.5 x 0.72 x 1.44 in	1.28 oz (36.5 g)	Nylon
A6060	SPMSA6060	Standard Digital Aircraft Servo	40-60 Size Plane	<ul style="list-style-type: none"> <li>Digital precision</li> <li>58 oz-in of torque</li> <li>Class leading specifications</li> <li>Standard size</li> </ul>	47.0 oz-in (3.40 kg-cm) @ 4.8V; 58.0 oz-in (4.20 kg-cm) @ 6.0V	0.16 sec/60° @ 4.8V; 0.14 sec/60° @ 6.0V	1.5 x 0.72 x 1.44 in	1.28 oz (36.5 g)	Nylon
A7000	SPMSA7000	Retract Aircraft Servo	40+ Size Plane Retract	<ul style="list-style-type: none"> <li>Perfect for larger models with heavier wheels and gear</li> <li>Durable metal gears and ball bearings for long lasting performance</li> </ul>	240.0 oz-in (17.30 kg-cm) @ 4.8V; 260.0 oz-in (18.70 kg-cm) @ 6.0V	1.5 sec/160° @ 4.8V; 1.2 sec/160° @ 6.0V	1.73 x 0.87 x 1.07 in	1.48 oz (42.0 g)	Metal
A7010	SPMSA7010	Thin Wing Servo	Thin (10mm) Wing	<ul style="list-style-type: none"> <li>Designed with serious glider pilots in mind</li> <li>Engineered to produce maximum performance in a very small size</li> <li>Perfect for park flyer and other small aircraft requiring a thin wing aileron servo</li> <li>Durable metal gear train</li> </ul>	46.0 oz-in (3.30 kg-cm) @ 4.8V; 49.0 oz-in (3.50 kg-cm) @ 6.0V	0.13 sec/60° @ 4.8V; 0.11 sec/60° @ 6.0V	1.08 x 0.39 x 1.07 in	0.5 oz (14.5 g)	Metal
A7020	SPMSA7020	Digital Thin Wing Servo	Thin (10mm) Wing	<ul style="list-style-type: none"> <li>Digital performance and excellent torque in a very small size</li> <li>Perfect for park flyer and other small aircraft requiring a thin wing aileron servo</li> <li>Durable metal gear train</li> <li>Designed with serious glider pilots in mind</li> </ul>	47.0 oz-in (3.40 kg-cm) @ 4.8V; 50.0 oz-in (3.60 kg-cm) @ 6.0V	0.11 sec/60° @ 4.8V; 0.09 sec/60° @ 6.0V	1.08 x 0.39 x 1.07 in	0.5 oz (14.5 g)	Metal

Heli 									
Name	Part #	Description	Application	Key Features	Torque	Speed	Dimensions	Weight	Gears
H3000	SPMSH3000	Digital Heli Sub-Micro Servo	250 - 450 Size Heli	<ul style="list-style-type: none"> <li>30 oz-in torque at 6.0V</li> <li>Aluminum center case</li> <li>Metal gears and ball bearing make it very durable</li> <li>High-speed for responsive cyclic performance</li> </ul>	30.5 oz-in (2.20 kg-cm) @ 6.0V	0.09 sec/60° @ 6.0V	0.89 x 0.47 x 1.0 in	0.47 oz (13.3 g)	Metal
H3020	SPMSH3020	Sub-Micro Digital High-Speed Heli Metal Gear Servo	250 - 450 Size Heli	<ul style="list-style-type: none"> <li>32 oz-in torque at 6.0V</li> <li>Aluminum center case</li> <li>Metal gears and ball bearing make it very durable</li> </ul>	18.0 oz-in (1.30 kg-cm) @ 4.8V; 22.0 oz-in (1.60 kg-cm) @ 6.0V	0.09 sec/60° @ 4.8; 0.08 sec/60° @ 6.0V	0.93 x 0.43 x 1.0 in	0.44 oz (12.6 g)	Metal
H5010	SPMSH5010	Mini Digital Heli Servo Metal Gear	500 Size Heli	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Metal gears make it very durable</li> <li>Quick .11-second transit time with 64 oz-in of torque</li> <li>Ball bearing</li> </ul>	63.9 oz-in (4.60 kg-cm) @ 6.0V	0.11 sec/60° @ 6.0V	1.4 x 0.6 x 1.1 in	1.04 oz (29.6 g)	Metal
H6010	SPMSH6010	Standard Digital Heli Servo	0.30 - 0.50 size	<ul style="list-style-type: none"> <li>100 oz-in torque at 6.0V</li> <li>Brass-nylon gear train</li> <li>Dual ball-bearing output shaft</li> </ul>	100.0 oz-in (7.20 kg-cm) @ 6.0V	0.14 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.7 oz (49.0 g)	Metal
H6040	SPMSH6040	Digital Heli Servo - High-Speed	50- to 90 - size	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Ultra fast 0.08-second transit time with 167 oz-in of torque</li> <li>Coreless motor for extended motor life and smooth operation</li> </ul>	167.0 oz-in (12.00 kg-cm) @ 6.0V	0.08 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.8 oz (52.4 g)	Titanium
H6080G	SPMSH6080G	Digital Gyro Servo	Tail/Gyro 550 - 700 Size	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Perfect gyro servo for 550 - 700 sized helis</li> <li>Ultra durable</li> <li>High-speed for aggressive tail performance</li> </ul>	55.5 oz-in (4.00 kg-cm) @ 4.8V; 69.4 oz-in (5.00 kg-cm) @ 6.0V	0.06 sec/60° @ 4.8V; 0.05 sec/60° @ 6.0V	1.57 x .79 x 1.46 in	2.00 oz (56.4 g)	Metal

Surface 									
Name	Part #	Description	Application	Key Features	Torque	Speed	Dimensions	Weight	Gears
S6000	SPMSS6000	Digital Surface Servo - Sport	1/10-Scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>90 oz-in of torque</li> <li>Dual ball bearings provide less resistance for higher performance and longer life</li> </ul>	90.0 oz-in (6.48 kg-cm) @ 6.0V	0.14 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.5 oz (42.0 g)	Nylon
S6010	SPMSS6010	Digital Surface Servo	1/10-Scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>100 oz-in of torque at 6.0V provides impressive performance in demanding applications</li> <li>Dual ball bearings provide less resistance for higher performance and longer life</li> </ul>	100.0 oz-in (7.20 kg-cm) @ 6.0V	0.14 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.7 oz (49.0 g)	Metal
S6020	SPMSS6020	Digital Surface Servo - Torque	1/10-Scale	<ul style="list-style-type: none"> <li>Digital precision</li> <li>146 oz-in torque at 6.0V affords impressive performance in the toughest applications</li> <li>Dual ball bearings provide less resistance for higher performance and longer life</li> </ul>	146.0 oz-in (10.50 kg-cm) @ 6.0V	0.19 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.7 oz (49.0 g)	Metal
S6030	SPMSS6030	Digital Surface Servo High-Torque	1/10-Scale -Monster trucks -Buggies -Truggies	<ul style="list-style-type: none"> <li>Delivers torque with silky smooth precision</li> <li>Heavy-duty</li> <li>Dual ball-bearing output shaft</li> </ul>	278.0 oz-in (20.00 kg-cm) @ 6.0V	0.15 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.8 oz (52.4 g)	Titanium
S6040	SPMSS6040	Digital Surface Servo High-Speed	1/10-scale -Monster Trucks -Buggies -Truggies	<ul style="list-style-type: none"> <li>Digital precision</li> <li>Ultra fast 0.08 second transit time with 166 oz-in of torque at 6.0V</li> <li>Coreless motor for extended motor life and provides smoother operation</li> </ul>	167.0 oz-in (12.00 kg-cm) @ 6.0V	0.08 sec/60° @ 6.0V	1.6 x 0.8 x 1.5 in	1.8 oz (52.4 g)	Titanium
S6070	SPMSS6070	Digital Surface Servo Low-Profile	1/10-Scale Pan Cars	<ul style="list-style-type: none"> <li>Low profile design</li> <li>Quick transit time</li> <li>125 oz-in of torque</li> <li>Dual ball bearings for higher performance and longer life</li> </ul>	97.2 oz-in (7.00 kg-cm) @ 4.8V; 125.0 oz-in (9.00 kg-cm) @ 6.0V	0.10 sec/60 deg @ 4.8V; 0.09 sec/60 deg @ 6.0V	1.6 x 0.8 x 1.0 in	1.6 oz (44.5 g)	Metal
S6090	SPMSS6090	High-Voltage Surface Servo High-Speed	1/8- and 1/10-scale	<ul style="list-style-type: none"> <li>High-voltage rating (compatible with 2S Lipo)</li> <li>Strong steel gears</li> <li>Dual ball bearing support</li> <li>.09sec/60° speed</li> </ul>	181.0 oz-in (13.00 kg-cm) @ 6.0V; 292.0 oz-in (21.00 kg-cm) @ 7.4V	0.11 sec/60 deg @ 6.0V; 0.09 sec/60 deg @ 7.4V	1.57 x 0.79 x 1.24 in	2.2 oz (62.0 g)	Steel
S6100	SPMSS6100	High-Voltage Surface Servo High-Torque	1/8- and 1/10-scale	<ul style="list-style-type: none"> <li>High-voltage rating (compatible with 2S Lipo)</li> <li>Strong steel gears</li> <li>Dual ball bearing support</li> <li>High-torque rating at 361 oz-in torque</li> </ul>	208.0 oz-in (15.00 kg-cm) @ 6.0V; 361.0 oz-in (26.0 kg-cm) @ 7.4V	0.13 sec/60 deg @ 6.0V; 0.11 sec/60 deg 7.4V	1.57 x 0.79 x 1.24 in	2.2 oz (62.0 g)	Steel
S8000	SPMSS8000	1/8-Scale Digital Servo High-Torque	1/8-Scale	<ul style="list-style-type: none"> <li>Larger motor for extreme 1/8th-scale applications</li> <li>8mm taller case than standard size servos</li> <li>306 oz-in of torque</li> <li>Dual ball bearing support</li> </ul>	250.0 oz-in (18.00 kg-cm) @ 4.8V; 306.0 oz-in (22.00 kg-cm) @ 6.0V	0.15 sec/60 deg @ 4.8V; 0.11 sec/60 deg @ 6.0V	1.57 x 0.79 x 1.77 in	2.8 oz (80.0 g)	Steel
S8010	SPMSS8010	1/8-Scale Digital Servo High-Speed	1/8-Scale	<ul style="list-style-type: none"> <li>Larger motor for extreme 1/8th-scale applications</li> <li>8mm taller case than standard size servos</li> <li>0.07 sec/60° speed</li> <li>Dual ball bearing support</li> </ul>	139.0 oz-in (10.00 kg-cm) @ 4.8V; 181.0 oz-in (13.00 kg-cm) @ 6.0V	0.08 sec/60 deg @ 4.8V; 0.07 sec/60 deg @ 6.0V	1.57 x 0.79 x 1.77 in	2.8 oz (80.0 g)	Steel