

RadicalCast #007 Show Notes

Electric Setup and Performance Chart

| Power Pack # | Motor | # Cells | Prop | Amps | Watts In / WPP | RPM | Thrust oz. | Pitch Speed MPH | Best Climb FPM @ Angle | Best Climb Angle | Est. Top Speed |
|---------------------|-----------------|----------------|-------------|-------------|-----------------------|------------|-------------------|------------------------|-------------------------------|-------------------------|-----------------------|
| Pack #1 | Himax 3522-990 | 3 A123 9.9v | 11x7 | 31 | 298 / 52 | 7,750 | 47 | 50 | 816 @ 22 | 29 | 43 |
| Pack #2 | Himax 3522-990 | 3 Lipo 11.1v | 11x7 | 38.4 | 432 / 74 | 8,690 | 61 | 56 | 1300 @ 32 | 46 | 49 |
| Pack #3 | Himax 3522-990 | 4 A123 13.2v | 11x7 | 47.7 | 611 / 97 | 9,740 | 78 | 63 | 1557 @ 35 | 52 | 55 |
| Pack #4 | Himax 3522-990 | 4 Lipo 14.8v | 11x7 | 57.6* | 864 / 135 | 10,740 | 96 | 69 | 2409 @ 54 | 90 | 60 |
| Pack #5 | Himax 3522-990 | 5 Lipo 18.5v | 10x4 | 43.9 | 823 / 141 | 15,110 | 94 | 54 | 2099 @ 50 | 90 | 56 |
| Pack #6 | Himax 3522-990 | 6 Lipo 22.2v | 9x4 | 43.4 | 977 / 168 | 18,540 | 102 | 67 | 2381 @ 53 | 90 | 61 |
| Pack #7 | Himax 3528-1000 | 4 Lipo 14.8v | 10x6 | 44.1 | 662 / 112 | 12,130 | 81 | 67 | 2897 @ 42 | 70 | 56 |
| Pack #8 | Himax 3528-0800 | 6 Lipo 22.2v | 10x4 | 36.5 | 821 / 145 | 15,340 | 96 | 55 | 2146 @ 50 | 90 | 57 |
| Pack #9 | Himax 3528-800 | 5 Lipo 18.5v | 11x6 | 47.8 | 896 / 146 | 11,810 | 106 | 65 | 2591 @ 60 | 90 | 61 |

*Over burst limit (54A) slightly, n 11-6 (52.6A) or 10-8 (50.8A) would be easier on the motor. Estimates based on manufacturers provided constants using E-Calc. High Quality 2200-3300mah used as trial cell in calculations. Presumed model weight of 82oz. @3 cells A124 4600 (added oz for higher cell counts). Actual performance may vary depending on components used, accuracy of data as provided by manufacturer, quality of battery, ESC, and many other factors. WPP=Watts Per Pound.

Specifications: Himax 3522-990

| Weight | Size D x L | Amps | Shaft | Max Motor RPM | KV | Resistance | No Load Current |
|---------------|--------------------------------|------------------|-------------------|----------------------|-----------|-------------------|------------------------|
| 162g/5.7oz. | 35.2mm(1.39") x 48mm(1.89") | 15-38, 54 15s | 5.0mm (.1969") | 20k | 990 | .027Rm | 2.2A |

Specifications: Himax 3528-800

| Weight | Size D x L | Amps | Shaft | Max Motor RPM | KV | Resistance | No Load Current |
|---------------|----------------------------------|-----------------|-------------------|----------------------|-----------|-------------------|------------------------|
| 197g/6.9oz. | 35.2mm(1.39") x 54.2mm(2.13") | 8-29, 40 15s | 5.0mm (.1969") | 20k | 800 | .031Rm | 1.7A |

Specifications: Himax 3528-1000

| Weight | Size D x L | Amps | Shaft | Max Motor RPM | KV | Resistance | No Load Current |
|---------------|----------------------------------|------------------|-------------------|----------------------|-----------|-------------------|------------------------|
| 197g/6.9oz. | 35.2mm(1.39") x 54.2mm(2.13") | 15-48, 68 15s | 5.0mm (.1969") | 20k | 1000 | .020Rm | 2.6A |