

Airtronics 2.4GHz FHSS – A Review

By Ed Hamler, SAM 27

Earlier this spring my friend, Jack Albrecht, who is a technical adviser for Airtronics, provided me with one of their new 2.4 GHz outfits in order to test its suitability for flying SAM Old Timer models with spark ignition.

The equipment provided was the RDS 8000 2.4 GHz FHSS transmitter and a 92824 Spread Spectrum 8 channel receiver. The model selected for the test was my class B Ignition 510 sq.in. Playboy Cabin powered by a replica Torpedo 29 by Ed Shilen. The spark ignition system has a typical single transistor trigger, a Modelectric coil, and a 3 cell NiMH 500 mAh battery pack. The high tension lead has a 10K resistor at the spark plug.

This particular model was chosen for several reasons: interference from spark RF had been a problem originally due to a cabin with very little separation between radio and ignition components. Changing from FM to an Airtronics 92965 PCM receiver had solved that earlier problem and we wanted to see if the same would be true with 2.4 GHz. In addition, with typical Playboy stability, the model should survive minor glitches in flight.

For the test, one of the receiver's two antennas was inserted into a tube running longitudinally down the fuselage and the other was positioned vertically beside the ignition battery pack at the firewall and stabilized with foam rubber in order to maintain the recommended 90° orientation angle between the two antennas.

A ground range check with low transmitter power indicated excellent control response up to 150 feet with engine running at high speed. The flight test was equally successful. The climb was smooth and steady and a good thermal afterwards took the model to speck altitude and an easy max.

The system's advantages are impressive: no waiting for channel pins, only one transmitter for multiple models, small-light receivers, and no spark interference. I have now purchased extra Airtronics receivers from HobbyPeople.net and all of my models for the upcoming SAM EuroChamps will be so equipped. My one criticism applies to most new RC transmitters – digital trim controls. For SAM competition, analog trims are easier to use when you cannot afford to take your eyes away from the model in order to glance at your trim positions.

The control functions of the RDS 8000 were easy for me to program. It employs the same intuitive menu as the earlier RD 6000 model which I still use for sport flying biplanes and seaplanes. The RDS 8000 has eight channels, ten model capacity, and complete functions for aeroplanes, sailplanes, and helicopters.