



Jeff Troy

# Flight Report

## SPEKTRUM™ DX6



The Spektrum DX6 is a six-channel computer system, exclusively designed for park flyer airplanes and micro/mini helicopters. Although it carries a “park flyer” nametag, one shouldn’t be duped into thinking that this is a beginner’s radio system. The Spektrum DX6 is a full-blown computer radio with a 10-model memory and plenty of programming, but those are a just a few short notes in the Spektrum’s song. Just wait until you hear the rest of the tune.

Many modelers are concerned about inexperienced fliers who might unknowing attempt to fly a park flyer within radio range of an organized club field. AMA has the same concerns, and they are valid. This in mind, what would you think of a park flyer RC system that wouldn’t — *couldn’t* — affect the operation of a model on our traditional 72mHz, shared 27mHz or even ham band frequencies?

I’m not referring to some 49mHz or alternate “toy” frequency, but a whole new environment, one that requires no crystals, no synthesizers, no frequency flags or club “pins.” If

all that isn’t enough to get your undivided attention, what if I told you that the Spektrum eliminates glitches and can’t “hit” another radio, and neither can it be hit?

The Spektrum’s Digital DSM, Spread Spectrum Modulation, operates on 2.4GHz with a dual signal that never quits. The FCC requires all transmitters using

2.4GHz spread spectrum to be able to check for and find an open channel before transmitting any signal.

When the DX6 transmitter is turned on, it automatically scans the 80 available channels in the 2.4GHz band and locks onto the *two* available frequencies with the very least activity. Since all devices on the 2.4GHz band are required to avoid other users — including wireless routers and cell phones — there is no chance that another 2.4GHz device can cause an issue.

The DX6 does not hear metal-to-metal noise or the noise that’s generated by an electric motor or speed control. That’s because every form of



Six-channel Spektrum receiver sports a pair of antennas at a 90-degree angle. TX and RX are always communicating on two frequencies.



### System Includes

- Spektrum DX6 transmitter
- Spektrum AR6000 receiver
- Spektrum S75 sub-micro servos (4)
- Dual 110V charger
- Programming chart
- Model reference card
- Registration card
- 96-page instruction manual

### System Features

- DSM Spread Spectrum technology
- Dual rate aileron and elevator
- Exponential aileron and elevator
- 10-model memory
- Programmable mixing
- Two-speed scrolling
- Two flight modes
- JR/Spektrum-compatible trainer system



Spektrum S75 Sub-Micro Servos weigh close to 1/4 ounce, and deliver 17.2 oz/in of torque at .12 sec/60 degrees transit time.

motor and model-generated noise has no energy above 300mHz. The DX6's 2.4GHz signal operates at nearly eight times that height, and because the signal is pure digital, glitches are a thing of the past. You can also forget 3IM or any other intermodulation issue that may affect 27, 72 and 75mHz systems. DSM operates above it all.

Shootdowns are gone. Each DX6 transmitter has a Globally Unique Identifier (GUID) code. This is the code that an AR6000 receiver uses to "bind" to the DX6 transmitter. Binding is the process by which the receiver learns the specific GUID of its transmitter. Once bound, the receiver will only listen to the information from that transmitter, ignoring all else. With more than 4.2 billion GUID codes available, encountering another transmitter with the same GUID is virtually impossible.

You may have noticed that the AR6000 receiver has two antennas. It's not a sales gimmick, but the result of what amounts to two complete receivers in the AR6000 case. This is Spektrum's DualLink. The transmitter selects two clear channels in the 2.4GHz band and transmits the same information on both simultaneously.

The result of all this DX6 technology makes it possible for modelers to ignore the technology. You don't have to know why your television works the way it does; all you have to do is turn it on and watch. Same here. Just turn the DX6 on and fly. Fly in the face of metal-to-metal noise. Fly in the face of motor noise, cell phone chatter, conventional RC transmitters — even other Spektrum transmitters. You're safe from all of it, and that's good.

In addition to its built-in bulletproofing, the DX6 has a lot to offer for a mid-range computer radio system. The



Two tab programming is intuitive — easy to learn and retain. transmitter handles flight modes for airplanes and helicopters, and a complete programming guide for each type of model is included in the instruction manual.

The System Mode is accessed by pushing up on both tabs as the transmitter is turned on. Selections in System Mode are Model Type, Data Reset, Dual Rate Switch, Wing Type, Model and Model Name Entry. To exit the System Mode, push the tabs upward or turn the DX6 off.

The Function Mode is accessed by pushing the tabs upward when the transmitter is already turned on. The Scroll tab selects the desired function and channel, and the Increase/Decrease tab is used to change the values. Features in the Function Mode include Servo Reversing,

Dual Rate, Exponential, Sub-Trim, Travel, Aileron-Rudder Mix, three programmable mixing options, Flap-To-Elevator Offset Trim, Differential, and Elevator-To-Flap Mixing.

Other features of the Spektrum DX6 system include V-Tail, Flaperon and Delta Wing mixing, throttle cut, adjustable stick



Spektrum six-channel computer transmitter is fully programmable, with dual rate, exponential, mixing options, reversing, digital trims and 10-model memory.

length, battery alarm, large LCD screen, a 600mAh NiCd transmitter battery and 110V wall charger, and four Spektrum S75 sub-micro servos.

For additional information about the Spektrum DX6 and DSM Spread Spectrum technology — and there's no shortage of information available — contact Horizon Hobby in Champaign, Illinois, at 217-352-1958.

The Spektrum DX6 RC system carries a one-year warranty and an MSRP of only \$199.99. **HM**