



The feature-packed TTX650 provides plenty of bang for your buck with a price of \$149.97!

Learn more about the transmitter's features in a video in the app and at www.ModelAviation.com/TTX650

The only thing cheap about this radio is the price

With Flyzone and Heli-Max rapidly expanding their Tx-R fleets, it was only a matter of time before Tactic released a transmitter that could handle more than a single model. For those who haven't been introduced to Tx-R technology, it refers to the preinstalled receivers used in these models. These receivers use the SLT protocol, which is compatible with the Tactic range of transmitters, as well as the AnyLink plug-in module.

The AnyLink module has a slightly limited range, but allows you to use your own transmitter. Until recently, Tactic only had a four-channel basic transmitter, which required setting up each time you switched to a different model. With the TTX650, the company has introduced a new entry-level, six-channel computer transmitter at a competitive price. When combined with the inexpensive

TR624 six-channel SLT receiver, you have a reliable system that can be used in most applications.

What I wasn't expecting was the incredible programmability of the feature-rich Tactic TTX650. Tactic provides features that you don't normally see on an entry-level computer transmitter, such as a wireless trainer, unrestricted channel and switch assignment, user-updatable firmware, quad-bearing gimbals, and the ability to store as many as 20 models.

The transmitter doesn't only look good on paper, it feels good in your hands. I fly "pinch" style, in which I hold the sticks between my thumb and finger, so I lengthen the sticks with each transmitter that I buy. The red, aluminum sticks are comfortable

Below: A traditional switch setup with one long, two-position switch and one short, three-position switch on the shoulder, with a long and short, two-position switch on the front face.



Above: The right side has a single, long momentary switch on the shoulder, with a long, three-position switch and a short, two-position switch on the front face.

AT A GLANCE ...

FEATURES

- 2.4 GHz SLT Protocol
- Twenty-model memory
- User-assignable switches
- User-assignable channels
- Eight preprogrammed mixes
- Four programmable mixes
- Six-point throttle and pitch curves
- Large LCD display
- Quad-bearing gimbals
- Firmware upgrade jack
- Wireless trainer system
- Dual rates/exponential
- All-channel reversing/sub-trim/travel adjustment

SPECIFICATIONS

Frequencies:	2.403-2.480 GHz
Protocol:	Tactic SLT
Modulation:	FHSS spread spectrum
Input power:	3.40-7.00-volt DC, four 1.5-volt alkaline or 1.2-volt NiCd/NiMH AA single cells; jack included for connecting optional 4.8-volt NiCd or NiMH pack (not included)
Current consumption:	Approximately 100-102 mA
Low-voltage alarm:	3.20-5.60 volts (adjustable)

Memories:	20 with copy function
Stick modes:	Two
Display:	128 x 64 graphing LCD with adjustable contrast
Channel controls:	Reversing, end points, sub- trims, dual rates, exponential
Timers:	Count-up stopwatch; countdown flight timer
Trainer system:	Wireless Tactic SLT compatible

INCLUDES

- Tactic TTX650 2.4 GHz six-channel transmitter
- Throttle ratchet
- Four AA alkaline batteries

PLUSES

- Programming flexibility.
- Intuitive menus.
- Wireless trainer.
- Inexpensive receivers.

MINUSES

- No screen backlight.
- No slide or rotary switch.

and the quad bearings give the gimbals a silky-smooth feel.

The switches have a solid, positive click to them, and my finger can rest comfortably between the shoulder switches. The stick tension and the throttle ratchet are adjustable (you can choose between the ratcheted or smooth throttle).

One negative aspect of the transmitter is that the navigation buttons slightly rattle, but when you push them you hear a click.

Other features worth mentioning are the firmware and charge-jack ports. The user can update the firmware, but that requires an optional cable. The charge jack is only to be used if you upgrade your transmitter to a NiMH battery pack instead of using the included AA batteries.

The wireless trainer feature allows you to connect a student's transmitter (any other Tactic transmitter) without cables. The trainer feature has a 15-foot range, and makes handling the model less precarious with the trainer cord

removed.

The user can switch the transmitter between Mode 1 and Mode 2. This is accomplished in the system setup menu, and the user must open the transmitter to switch the throttle ratchet to the other side. This is a nice feature, especially knowing that a number of pilots fly using Mode 1.

The typical customizing options also are available. You can set the beep volume from the navigation buttons, the contrast of the LCD screen, and the battery-voltage alarm. Pilots can also name their models, copy, and/or reset them.

Menu navigation is achieved using six plastic buttons—three on each side of the display. On the left side of the screen, there is a servo button that accesses the servo monitor screen, the clear button, and the ESC button. The right-side buttons are the plus and minus buttons that also act as the scroll buttons in the menu list, and the enter key. There are three menus that can be accessed: system setup, settings, and model setup. These are all accessed by pushing the enter key.

To get to the system set up, hold the enter button when powering up the transmitter. Access the settings menu by pushing the enter button when the transmitter is on.

The model setup menu is accessed by holding the enter key for a second or two after the transmitter is powered up.

I'd like to discuss some of the programming options that distinguish this transmitter from its competition. I fly airplanes and helicopters and was happy to see that there were programming options for both. In terms of throttle and pitch curves, I like the way that the graph starts

The settings menu shows some of the available servo setup options.



The model setup menu is where you can manage models and set wing types and channel assignments.

The system setup menu is where you can set overall system options for the transmitter.



out as a linear curve: low to high, zero to 100. You can go anywhere on the curve and add up to four points, placing them where you want them.

The helicopter programming includes a swash ring. Other transmitters that are twice the price with nearly double the channels don't have this. In airplane mode, there are diagrams of the various wing types, making the selection process easier.

You can also add or remove flaps, set the number of aileron servos, and specify if it is a conventional, V-tail, or a flying wing. You get this same diagram procedure when selecting swash types in helicopter mode.

Wherever a switch is assigned, you can tell the transmitter which switch you want to use for that feature and you can tell it which position does what. Such flexibility is normally only

seen on high-end transmitters.

On my airplanes, instead of having all of my dual rates on separate switches, I use a feature known as flight conditions/modes that combines all of my dual rates onto a single, three-position switch. This gives me three separate rates for each of my control surfaces. There is a mode for takeoff and landing, then I flip a switch and get my typical low-rate “flying around” mode, and flip the switch again and I’m in 3-D mode.

You can do the same with the TTX650, and assigning a switch couldn’t be easier. When choosing a switch, a popup screen asks you to flip the one you want to assign. You can choose which position activates the feature.

I can assign my airplane’s aileron, elevator, and rudder dual rates to the

This flexibility also applies to channel assignments. There are no channel restrictions and you can tell the transmitter which channel matches which function. This is useful when you want to plug a particular servo cable into a specific channel.

There is also a battery-saving feature. If you don’t touch your transmitter for 10 minutes, an alarm sounds. If you ignore the alarm for two more minutes, the transmitter will shut itself off.

I have flown the TTX650 with a number of small, SLT-compatible helicopters, but I wanted to test it in larger aircraft, so I purchased a TR624 receiver and installed it in my “ever-so-slightly-less-than Two-Meter” sailplane. The model is a kit-built Wanderer, with a motor attached to the front. It’s a great lazy afternoon thermal airplane, and a fun night flier. I flew the Wanderer until it was a speck in the sky, and didn’t have

any trouble with range. It responded perfectly and was easy to set up.

I used a program mix to for lighting flexibility, and a second program mix for down-elevator at full throttle (to



The radio uses four AA batteries, with the option of adding a rechargeable pack.

prevent it from pitching up). I had the same success flying a couple of micro helicopters, although they are difficult to see at a distance. I’ve ordered more receivers and plan to use them in larger airplanes and multirotors.

Conclusion

I am impressed with Tactic’s first computer transmitter. Its strengths are its programming, flexibility, switch and channel assignments, set mixes for each model type and four additional program mixes, its large graphing display, 20-model storage, and of course, the SLT compatibility.

The menus are all intuitively laid out, and for the most part, I didn’t have to look at the instruction manual when learning how to program it. If I had to find a fault it would be the lack of a backlit display, and I would love to see a slider or rotary dial added.

You are getting a lot of bang for your buck with the TTX650 transmitter, priced at \$149.97. It is packed with programming and features that you can’t find elsewhere in a six-channel unit.

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The charge jack for the optional rechargeable battery and the firmware update port requires an additional cable.

same three-position switch, then add specific program mixes. The rates can still be separated on three switches, or aileron and elevator on one switch and rudder on the other.

MANUFACTURER/DISTRIBUTOR:

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