

AREA WIDE AMATEUR RADIO ASSOCIATION



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Product Review -TriSquare TSX 300 Digital Radio: Aaron Sanders / KF4DKB

As a subscriber to *Popular Communications* magazine for many years and with my fondness for new radio-type gadgets, I read the article about the new wave of consumer radios with great enthusiasm.

The reviews covered the new TriSquare TSX 300 and the not-so-new Motorola DTR-410 FHSS (Frequency Hopping Spread Spectrum) Digital radios. I had some limited experience with the Motorola version a couple years ago when I tried them out at my place of employment. They worked well, but the cost was out of range of most individual users, like myself. I couldn't even justify purchasing them for my place of employment. The Motorola units have dropped some in price recently, but they still sell for about \$275.00 each..

So I was pleased when I read that the TriSquare radios, which operated on the same FHSS principle, albeit with a different version of technology, had a suggested (recently reduced) retail price of only \$ 99.99 a pair. I promptly got on the internet and did a search for the radios. To my surprise, I found a brand new pair for only \$ 82.00 including shipping. They arrived a few days later and the fun began.

The units can be programmed for any of ten billion (yes, billion) privacy channels that virtually assure no one will be listening in on your conversations. They come programmed from the factory to channel 0, but you can pick any channel between 0 and 9,999,999,999 to insure your privacy. The channel (s) you program in determine the "frequency hopping" order. Not only that, but the transmissions are actually digital which gives an extra degree of privacy, since digital scanners are not that common yet among scanner enthusiasts. The units operate in the license-free ISM band between 902 and 928 MHz.

These units are the latest wave of personal two-way communication. They are basically intended as an alternative to the millions of GMRS / FRS radios currently in use. As users of the GMRS / FRS radios know, there is no real privacy with these radios. Just try using one at some type of event such

as a football game or on a cruise ship.

Now for performance: once you've decided on which of the ten billion channels you're going to use, you can use the units to carry on a conversation or send text messages from the keypad. You can add as many radios as you want to your "channel". You can also set up separate "talk groups" so you can speak to a whole group of users, select users or just one other user. The "value package" comes with a drop in charger that holds both units, two NiMH rechargeable battery packs (or you can substitute AA batteries) and two headsets.



The units can operate either in the Push-to-Talk or VOX mode. I found the headsets a little flimsy, but they do seem to work well in high noise areas. Debbie and I used the headsets at a recent rock concert when we helped with crowd control. As for range, the one-watt units seem to work well. I have used them vehicle to vehicle and achieved a range of about 1 mile. In wooded terrain, the range was about the same. I was recently in a large hotel and we were able to talk through 23 floors of steel and concrete just like we were in the same room. There is a short "digital delay" of about 250ms which is inherent in most digital transmissions, but it's not noticeable unless you happen to be talking to a person standing next you. Another great feature of the units is the ability to receive NOAA Weather Radio broadcasts. I would definitely recommend these radios over the current GMRS / FRS radios. The price may be a little more, but for me the privacy factor justifies the extra cost.

(Editors note: following Aaron's presentation at the last meeting, I too, obtained a pair of the TSX 300's. These radios would have an excellent application for emergency response units - given the privacy aspect of the radios. Once programmed, you can "clone" another radio OTR [Over the Air] - no cables required.

To learn more about TriSquare eXRS radios and accessories, visit TriSquare's website at <http://www.trisquare.us>