## technology showcase

showcase new product performance analysis

## WiNRADiO's AX-31B Planar Log-Periodic Antenna

nce in a while an unusual, out-of-the ordinary product comes our way that really deserves attention. Such is the case with WiNRADiO's AX-31B antenna. It's a compact indoor VHF/UHF directional antenna with a built-in amplifier — great for scanner users — or with any VHF/UHF receiver. The frequency range is 230 to 1400 MHz.

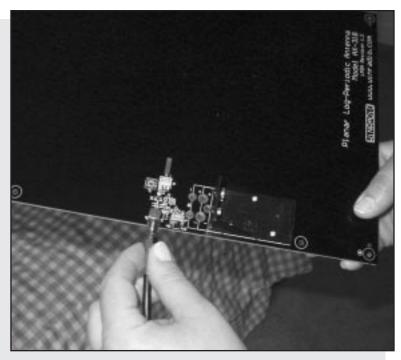
"Constructed of high impact plastic, this opaque black rectangular marvel can be mounted anywhere indoors."

When the company said they were sending an antenna for review, naturally I expected a pretty large box — after all, it was an antenna they were sending! The thin book-sized package arrived from WiNRADiO, and much to my surprise it was the antenna! It's just a little larger than the magazine you're holding right now, and weighs practically nothing — only 9 oz. (without a small 9-volt battery attached). Constructed of high impact plastic, this opaque black rectangular marvel can be mounted anywhere indoors. I used the mounting adhesive, sticking it to a west-facing window. The antenna's large white arrow points north/northwest — the direction I want to "point" the antenna for best reception of signals from Newark, Woodbridge, and Metuchen, New Jersey.

## Set Up And Performance

Setting up this compact antenna was a breeze; decide where you want to mount the antenna — the wall, on the glass of a nearby window, hidden in a bookcase or behind a curtain — anywhere — then connect the supplied cable (a long, quality six-foot cable), twist the BNC at the other end onto your scanner, and flip a small switch to "on" and hear the action. It's pretty simple and straight forward. Now, I'll admit that at first I was a bit skeptical, and my expectations for the antenna weren't high, but I was about to be shocked by this small miracle worker that's the size of a sheet of paper!

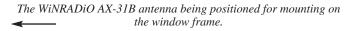
Much of my listening fare is aircraft — Newark International airport is only a few miles north. My regular antenna is a discone mounted on a pole near the top of our two-story house. Much of the time, as with many antennas, it pulls in signals — it is after all an omnidirectional antenna — from all over. Guess what? I've found a new, near-perfect — and indoor — antenna with the WiNRADiO antenna! Signals from the tower came in loud and clear. Disconnecting the antenna I changed to a rubber duck and heard nothing. I then switched to a telescoping whip antenna and was able to hear some transmissions from the

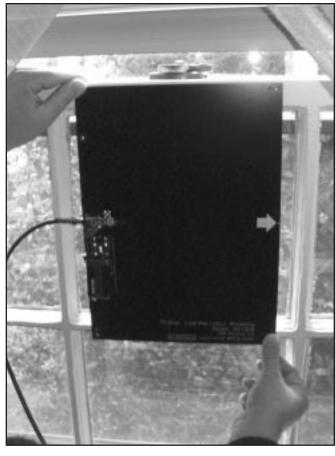


Connecting the supplied six-foot cable to the antenna. The other end terminates in a BNC connector — perfect for your scanner.

tower, relatively few taxiing aircraft and only sporadic transmissions from Metuchen and Woodbridge police and fire. Reconnecting the WiNRADiO antenna greatly improved signal strength — so much so that in fact I've decided to semi-permanently mount it on the window frame so I can unhook it, and take it to another room or out on the patio (keeping it away from moisture, of course) in order to catch signals from Philadelphia and points south.

A concern with amplified antennas is that they frequently also amplify noise and hash — definitely the type of "signals" you don't want to hear. There was very little amplified noise present on most signals. Remember, everything is a trade-off. If you live in an area that restricts outdoor antennas, you're in luck using this great WiNRADiO communications antenna. Cost of setup other than a 9-volt battery is zero — as compared to hoisting a couple of RadioShack poles, buying mounting hardware and cable to your radio. Of course this antenna certainly isn't an outdoor yagi or discone mounted 30-feet in the air, either. I found many excellent uses for the WiNRADiO AX-31B antenna; it's stealthy, has excellent amplifier gain (advertised as 20 dB) and forward gain (spec sheet says it's 6.0 dBi) and will certainly outperform that rubber-duck antenna that came with your handheld or the telescoping whip antenna that came with your





A small switch turns on the antenna, activating a small red LED.



"Its construction — even though it's designed for indoor use only — is high quality throughout."

base scanner. WiNRADiO says it's especially suitable for their 1000/1500/3000 Series of receivers.

For frequent or continuous use, the company recommends you apply external DC power instead of using a 9-volt battery. I was able to get several hours of continuous use from a standard alkaline battery before noticing a difference in received signal strength. WiNRADiO provides simple instructions for connecting a 220 ohm resistor onto the antenna

when using an external power supply. Whatever you do, don't transmit with this antenna — it's a receive-only amplified VHF/UHF indoor antenna.

As an amateur operator, I did find it the perfect antenna for hearing about a dozen or so regional two-meter frequencies on my homebrew receiver; I can monitor portions of the band and then use my handheld to make contact.

WiNRADiO says the antenna is "a low-cost alternative to conventional VHF/

UHF antennas (for example discones), especially for indoor professional and amateur applications." I agree 100%! Its construction — even though it's designed for indoor use only — is high quality throughout. Keep it home installed on a window or wall, but don't forget to bring it along when traveling — it's perfect for a vacation!

For more information on the WiNRADiO AX-31B which sells for \$129.95, contact WiNRADiO Communications at info@winradio.com. Visit their outstanding website at www.winradio.com and be sure to tell them you read about the AX-31B receiving antenna in *Popular Communications*.