

# Doodle Labs DL-435

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For those of you who heard David Rowe, VK5DGR's speech on the Mesh Potato at the TAPR-ARRL Digital Communications Conference, there is an interesting new product from a company called Doodle Labs: an OFDM (Orthogonal Frequency Division Multiplexing) radio capable of about 6 Mbps of data throughput utilizing a 5-MHz wide channel in the 420-450 MHz, 70-cm band. More information can be found on their website [www.doodlelabs.com](http://www.doodlelabs.com).

The DL-435 was first made available in November 2011, so tests have been somewhat limited. However here are some initial conclusions.

At 20-30 feet using a 6 dBi gain omnidirectional antenna, a couple of different ham groups have seen 1/2 mile to 3/4 of a mile usable non-line of site mobile coverage using a 1/4 wave mag mount antenna. Both reports were in moderate to heavily mature treed neighborhoods.

Keep in mind, at this low of a frequency, the height of the antenna will play a role to clear the large Fresnel zone and improve the performance.

The fact that you are not competing with your next door neighbors WiFi, makes these boards great for HSMM (High-Speed MultiMedia radio). If you can find a few hams in your area interested in it, there are bunch of possibility's for an OLSR (Optimized Link State Routing protocol) network built on these things eliminating Internet costs at repeater sites, repeater linking etc.

I have seen little on the subject of bi-directional amplifier designs for either 400, or 900 MHz. So I'd like encourage that project for anyone up to the task as I feel that can augment this quite nicely.

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