Narrowing Radon Antenna

The Radon antenna has been narrowed due to mechanical constraints. A test was made, where the entire antenna was cut to 3.5mm width, by cutting on the front side of the antenna only.

The test was quite successful, and the antenna was easy to match using a 2.2pF series capacitor. Antenna length from bend is 21.5mm, and the antenna is still raised about 2 mm.

Included are measurements of return loss and gain of the antenna.

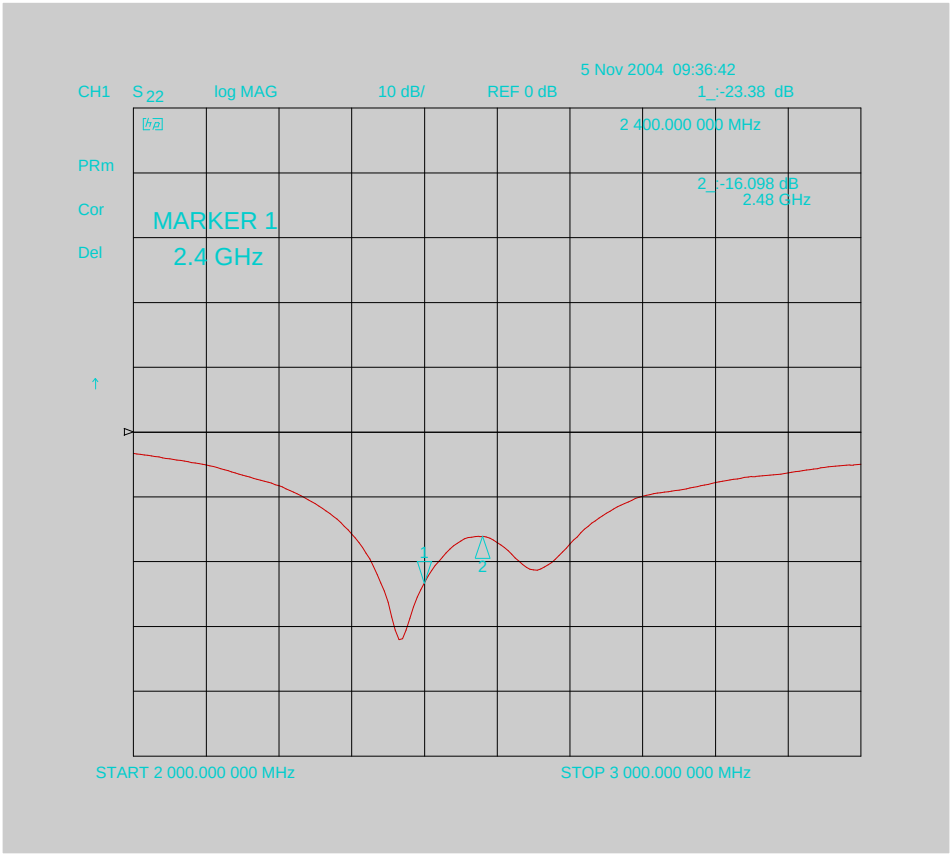

Figure 1: Return loss of narrower Radon antenna.

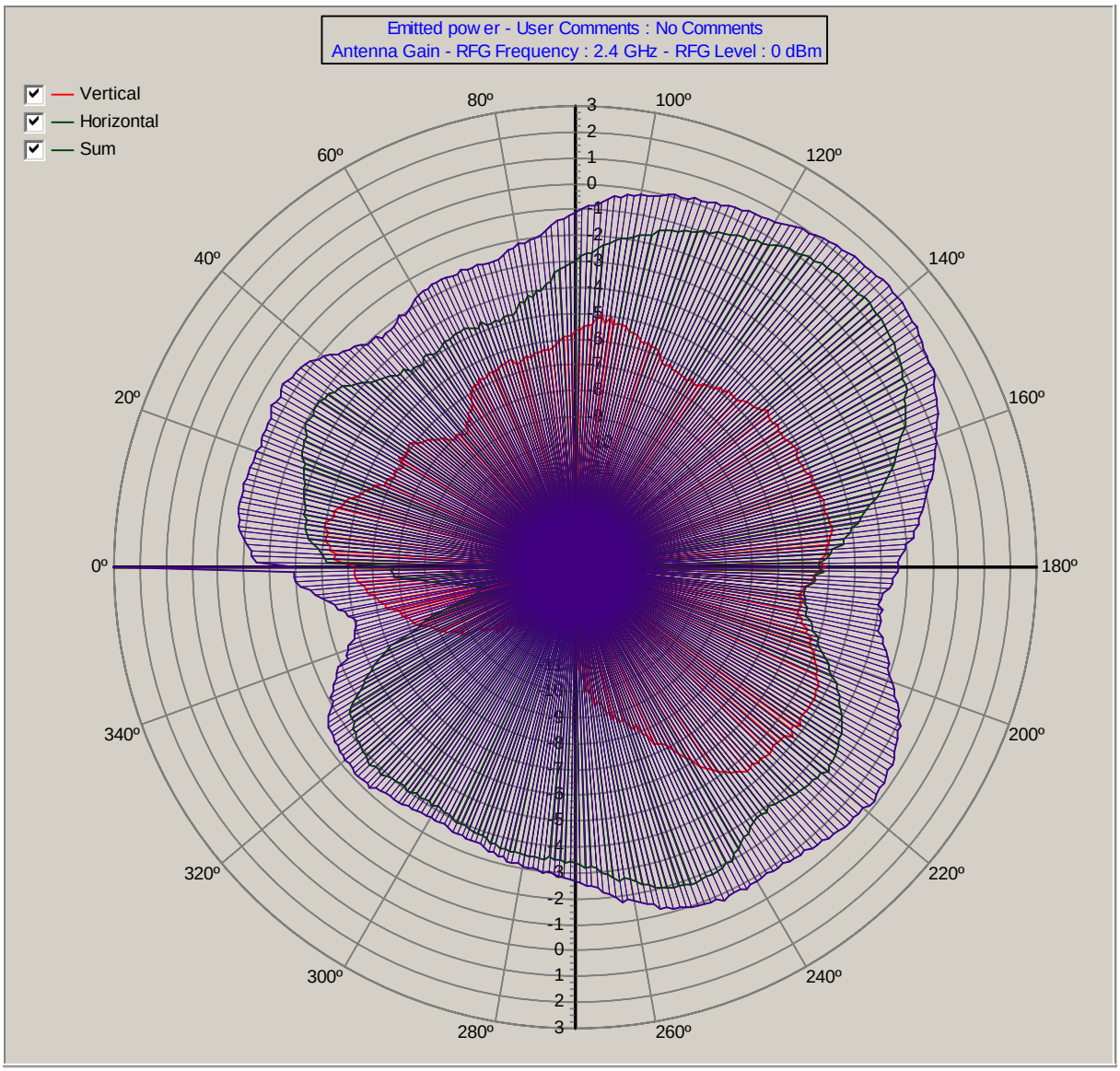

Figure 2: Horizontal radiation pattern. 0° is towards user.

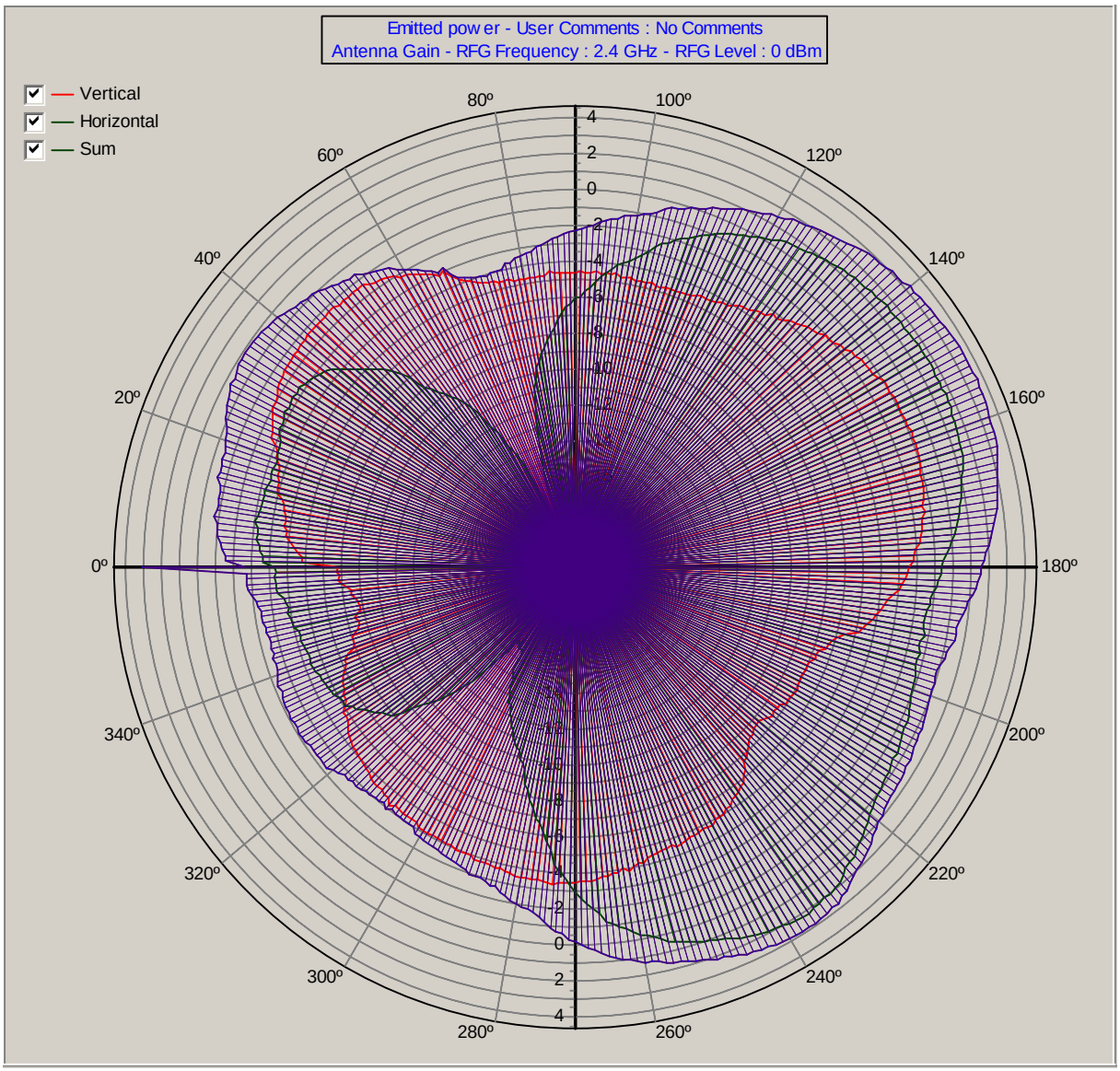

Figure 3: Vertical radiation pattern. 0° is towards battery compartment.