

Delta for the 80 and 40 meter Bands

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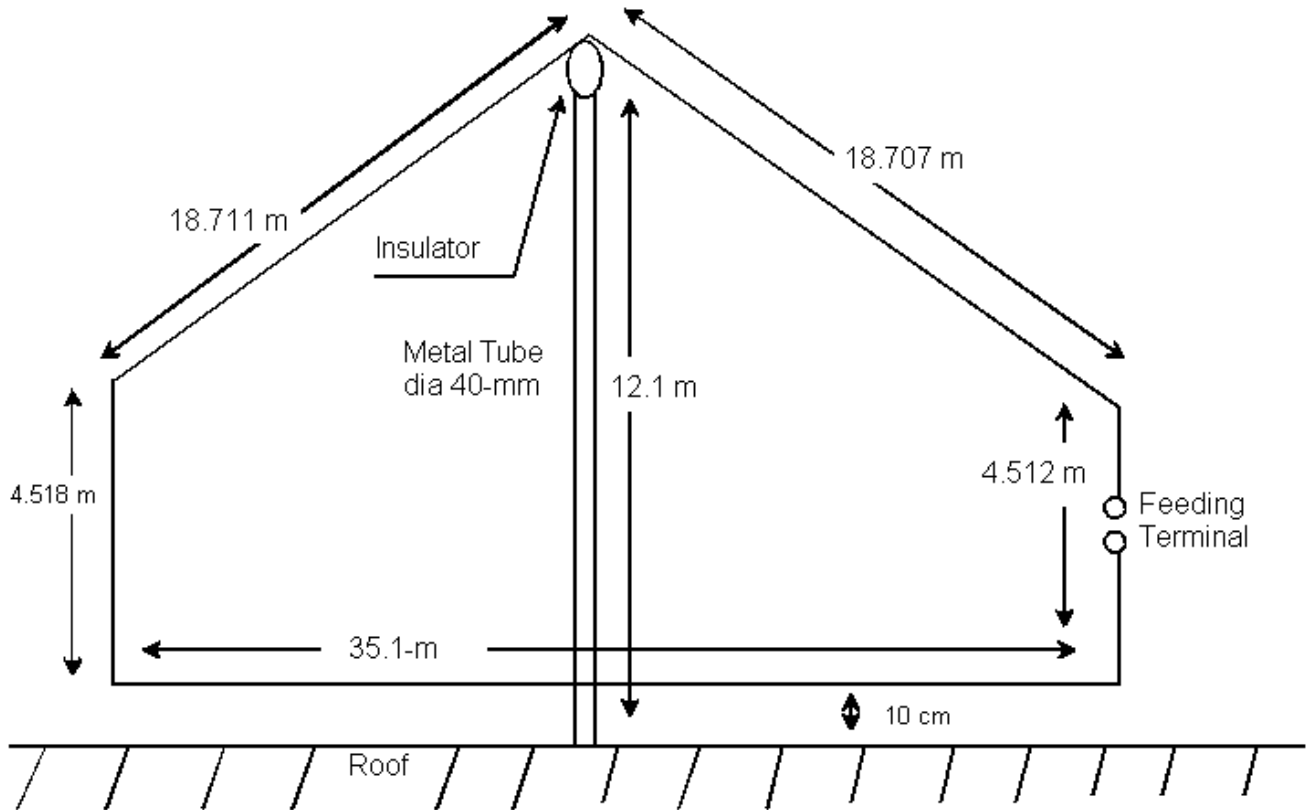


Figure 1 Design of the Delta for 80- 40 meters

The Delta for 80 and 40 meters was designed for installation on the roof of a building with help of a metal mast. Design of the antenna is shown on **Figure 1**. Link for file *maa for the antenna is given below at the article.

File *maa contains correct dimension for the antenna. However, MMANA simulates the antenna in not correct way. Correct data may be reached using NEC for MMANA. All of these programs are free. **Figure 2** shows patterns (in horizon and vertical plane) of the antenna on the 80 meters. **Figure 3** shows patterns (in horizon and vertical plane) of the antenna on the 40 meters.

Matching of the antenna at both bands is possible with the help of the length of 75-Ohm Coaxial in 4.82-meters. SWR at the both bands (at this case) is 1.46:1.0. **Figure 4** shows diagrams and data for the matching. Improved variant of the matching is shown on the **Figure 5**. A length of 75-Ohm coaxial cable in 3.9 meters and opened stub from a length of 75-Ohm coaxial cable in 1.7 meters are connected to antenna's terminal. SWR at the both bands (at this case) is 1.23:1.0.

It is a theoretical model. In the coming spring I hope to install and check the antenna.

73!

Link: http://www.antentop.org/010/rz3dk_010.htm



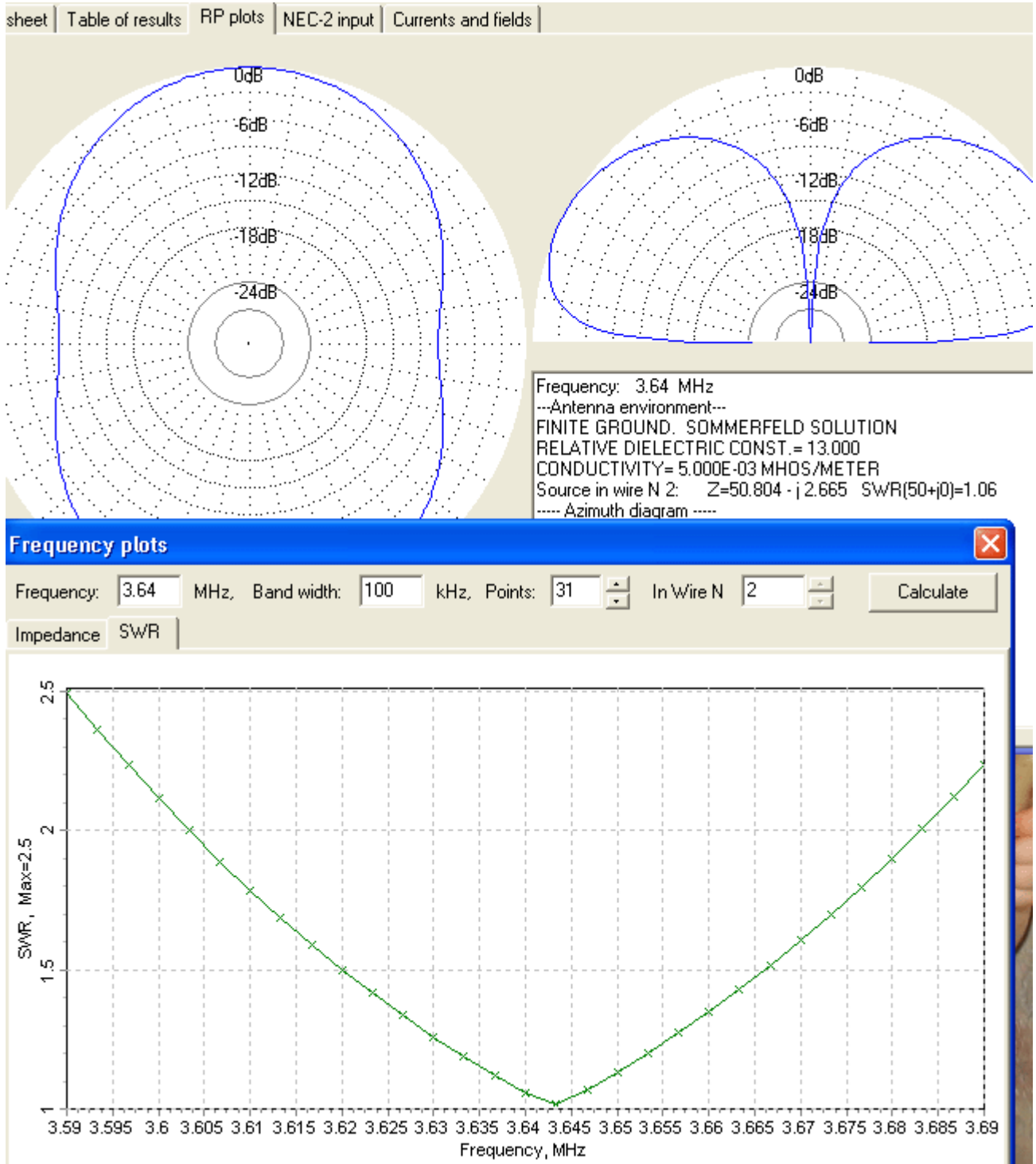


Figure 2 Patterns (in horizon and vertical plane) of the Delta on the 80 meters.



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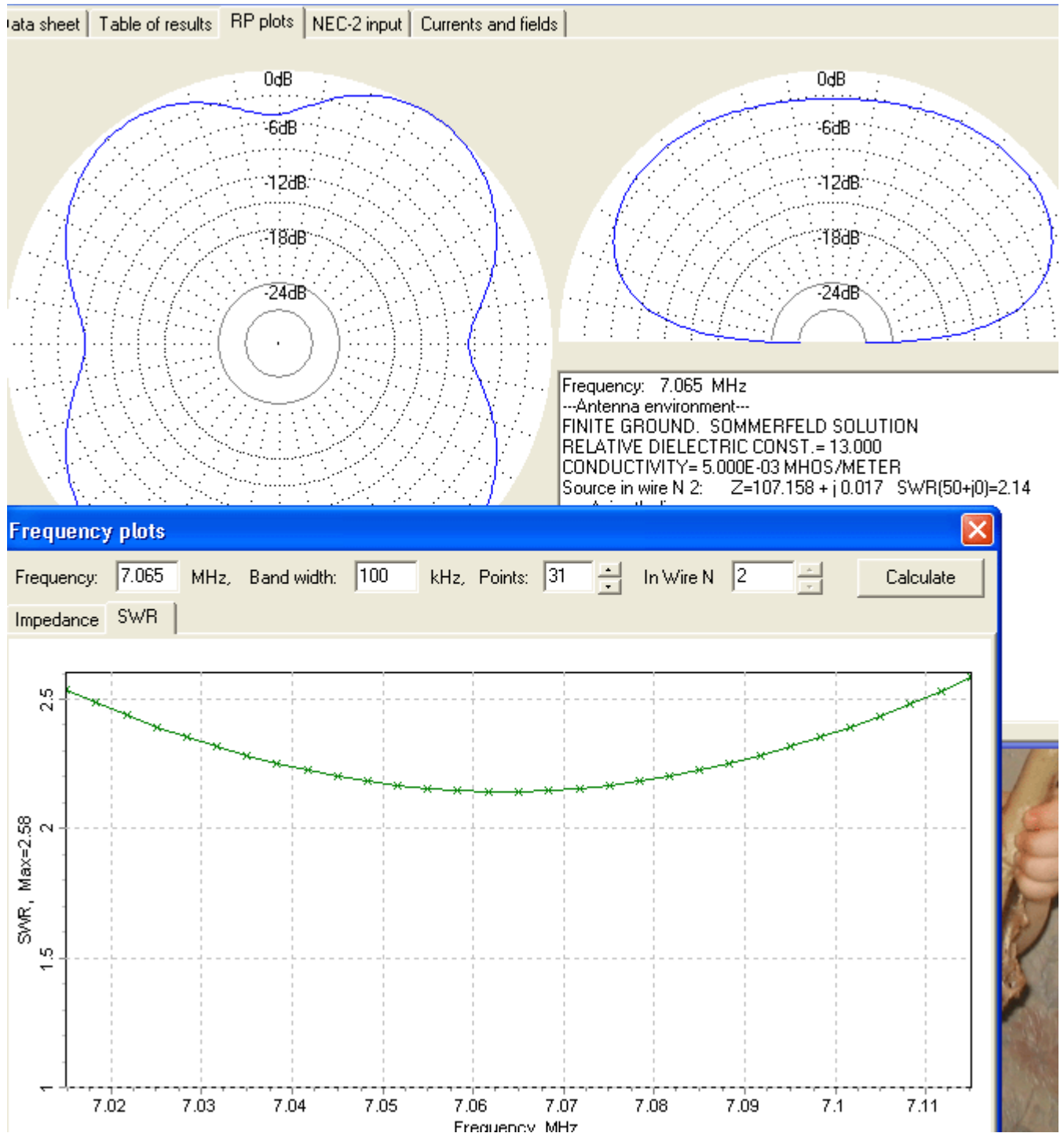


Figure 3 Patterns (in horizon and vertical plane) of the Delta on the 40 meters.



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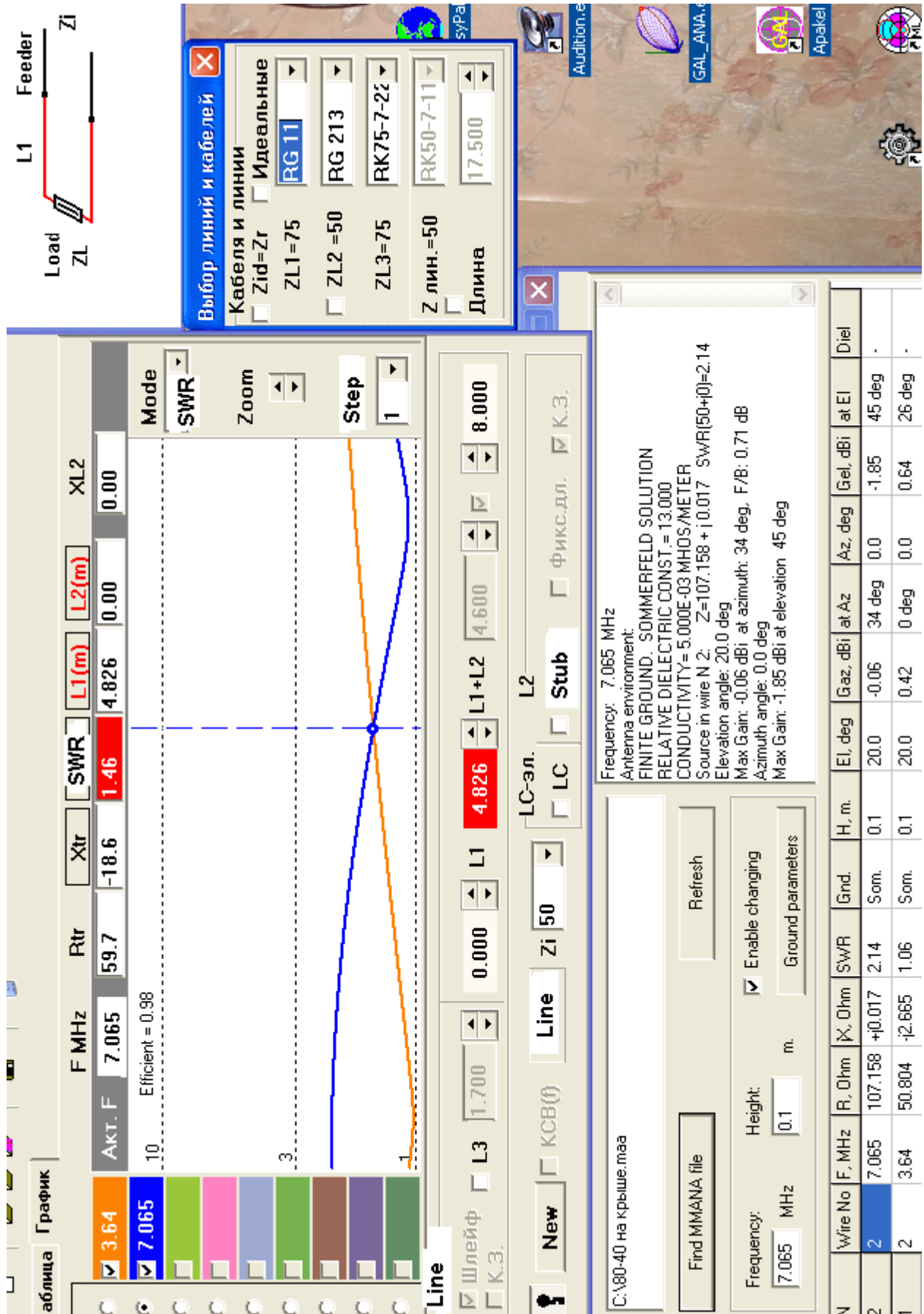


Figure 4 Matching of the antenna with the help of one length of the 75-coaxial cable

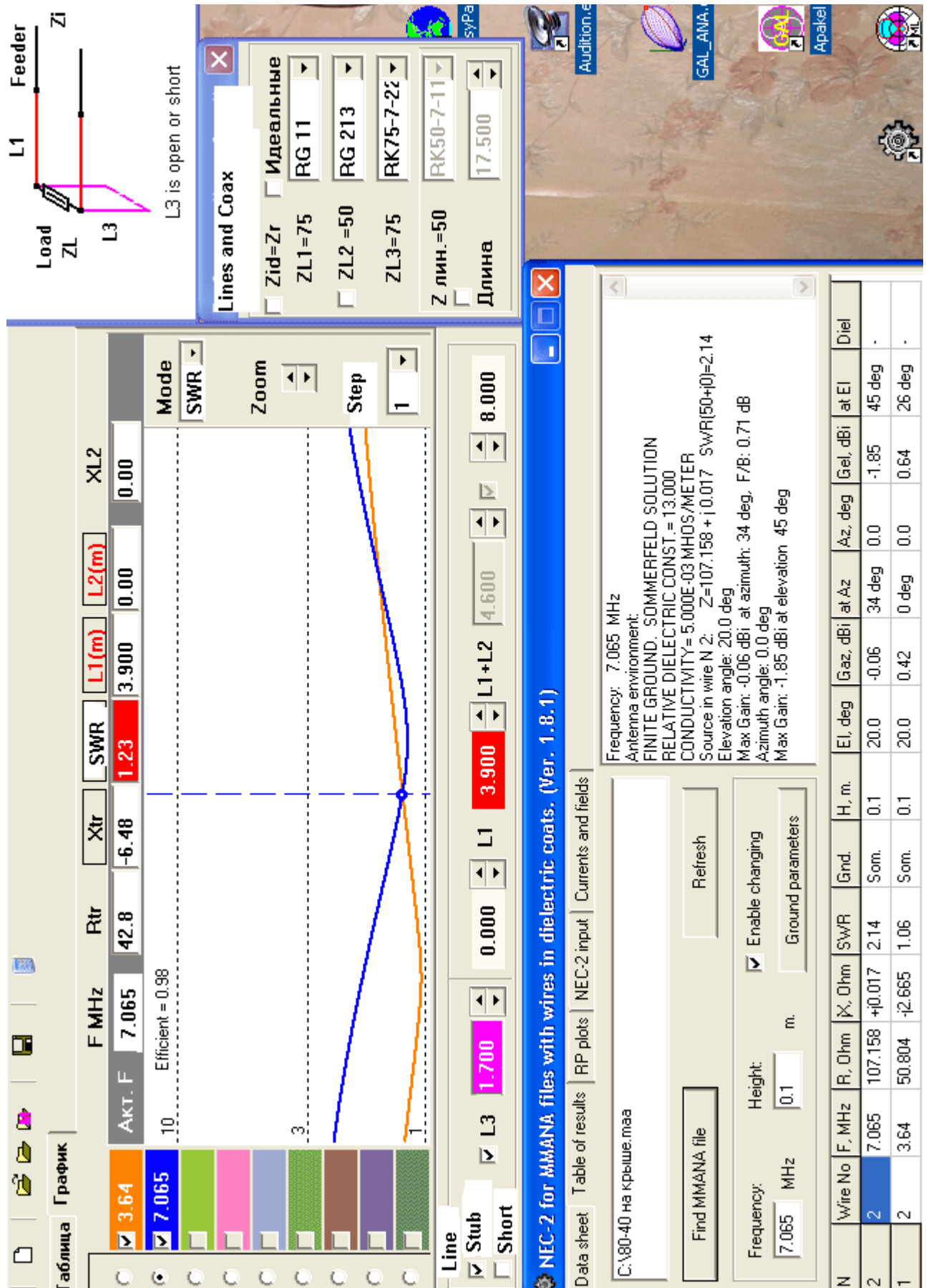


Figure 5 Improved matching of the antenna with the help of two length of the 75-coaxial cable