

RN3DEK 3- Element Arrow Directional Antenna for the 145- MHz Band

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Credit Line: Forum at cqham.ru

There is presented 3- Element Arrow Directional antenna for the 145- MHz Band. The antenna is matched with coaxial cable with help of gamma- matching. Antenna has good SWR at the band and excellent F/B ratio. Antenna does not require follow to strictly dimension of the elements. So the antenna may be done ever by a ham who has no large experience in the antenna building.

Antenna has 50- Ohm input impedance (at gamma match) that allows feed the antenna directly by 50- Ohm coaxial cable. **Figure 1** shows schematic of the antenna. **Figure 2** shows design of the gamma- match for the antenna. Antenna reflector antenna made of tube/rod in diameter 8- mm. All others antenna elements of the antenna made of tube/rod in diameter 8- mm. Gamma match made of wire/rod in diameter 2.5- mm.

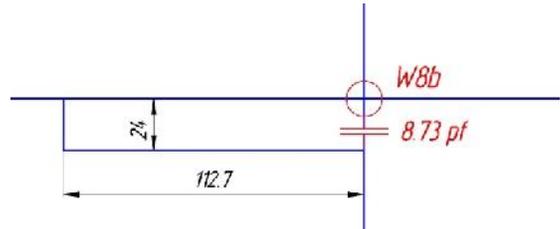


Figure 2 Design of Gamma- Match for the RN3DEK 3- Element Directional Antenna for the 145- MHz Band

Figure 3 shows Z of the antenna. **Figure 4** shows SWR of the antenna. **Figure 5** shows DD of the antenna.

73! RN3DEK

MMANA File of the RN3DEK 3- Element Directional Antenna for the 145- MHz Band may be downloaded at:

http://www.antentop.org/022/RN3DEK_arrow_022.htm

Variant of the antenna is with an aluminum boom. Boom has diameter of 30- mm. Antenna elements are insulated from the boom.

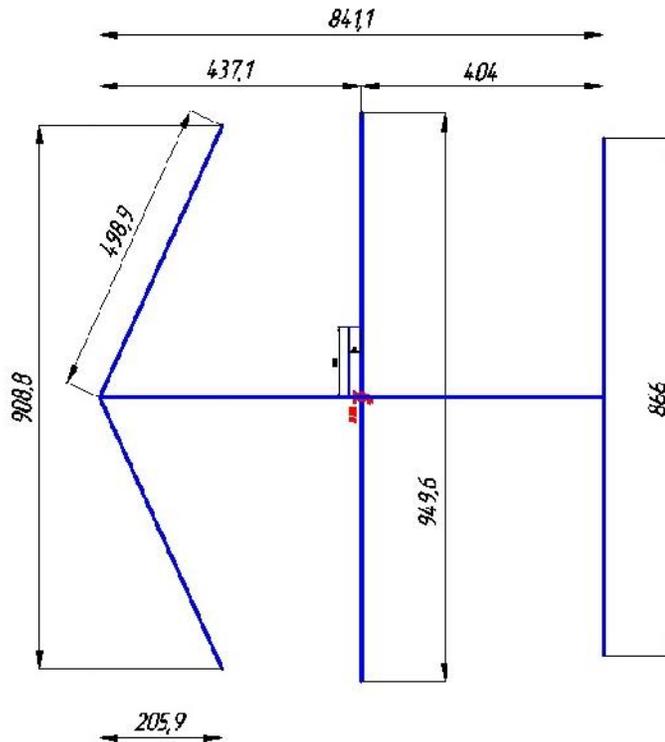


Figure 1

RN3DEK 3- Element Directional Antenna for the 145- MHz Band

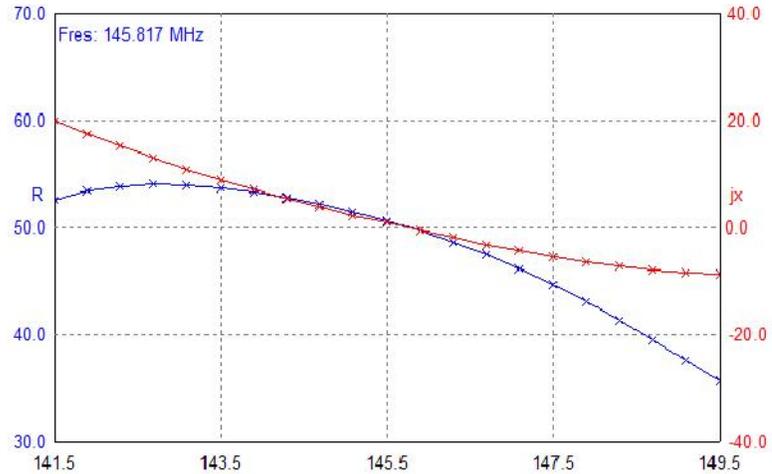


Figure 3 Z of the RN3DEK 3- Element Directional Antenna for the 145- MHz Band

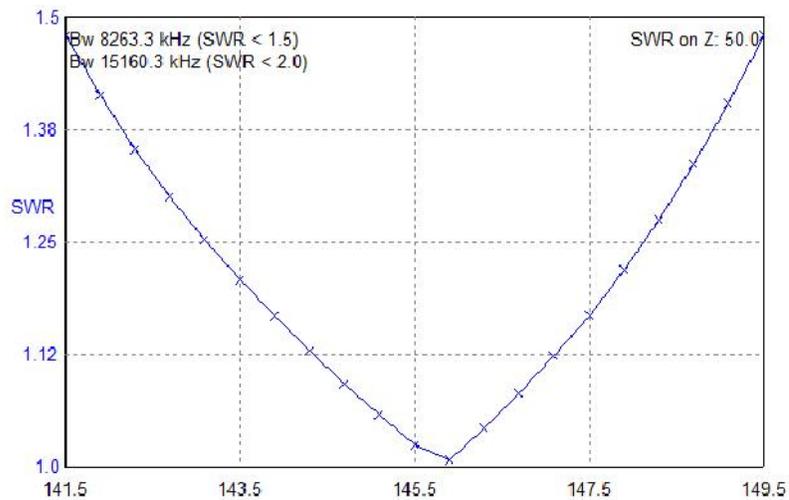


Figure 4 SWR of the RN3DEK 3- Element Directional Antenna for the 145- MHz Band

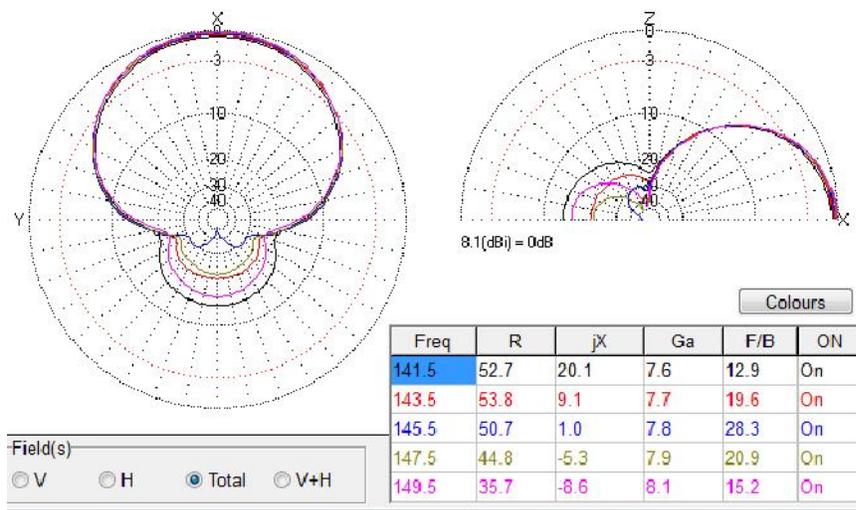


Figure 5 DD of the RN3DEK 3- Element Directional Antenna for the 145- MHz Band