Experimental researches of the mirror back radiation exciter with the three centimeter range in the time domain with the transformation to the frequency domain

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The paper presents the measurements results of the directional pattern and the gain of the mirror back radiation exciter with the three centimeter range obtained in the time domain under box conditions, limited by sizes and echo-free conditions. Exciter's optimum focuses in the field sensor location results in a subsequent transformation of measurements results in the frequency area. The adjustment technique for the optimum arrangement of the back radiation exciter for focusing the mirror aerial on infinity is suggested.

Keywords: directional pattern, gain, the effective antenna area, directional factor, far field, polarization.

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