

4.3 Yagi antenna

Quiz

Answer these questions to get feedback on how well you understand the course. Only one of the answers is correct. You don't have to answer every question. If you don't know the answer you can just leave it blank (default option: "I won't answer this question") and this won't affect your score. Answering **correctly** will **add 2 points** to your score but on the other hand you'll **lose 1 point** if your answer is **wrong**. The questions are divided in groups of five questions.

Press **See result** after you have finished answering.

Displaying questions **1..10** of **10**:

Question 1

Yagi antenna consists of...:

Possible answers for question 1:

- ... an active dipole, of a reflector and of several directors.
- ... an active dipole and of several directors (one of them is longer than the dipole, several of them are shorter).
- ... several active dipoles, of a reflector and of several directors.
- I won't answer this question

Question 2

The directors of Yagi antenna are excited by electromagnetic wave, and induced currents. The directors...

Possible answers for question 2:

- ... influence gain of the antenna.
- ... concentrate the antenna radiation into one half-space only.
- ... influence all the parameters of the antenna (gain, directivity pattern, input impedance).
- I won't answer this question

Question 3

Depending on the number of directors, the gain of Yagi antenna is usually in the interval ...

Possible answers for question 3:

- ... 5 to 9 db.
- ... 10 to 15 db.
- ... 16 to 20 db.
- I won't answer this question

Question 4

The lobes in the directivity pattern of Yagi antenna appear ...

Possible answers for question 4:

- ... both in front of reflector and even behind the reflector.
- ... in front of reflector only.
- ... behind the reflector only.
- I won't answer this question

Question 5

If Yagi antenna is analyzed by the method of moments, mutual- and self-impedances of antenna segments ...

Possible answers for question 5:

- ... of the active dipole appear in the impedance matrix; the influence of the reflector and directors are neglected.
- ... of the active dipole appear in the impedance matrix; the influence of the reflector and directors is incorporated to the analysis by the method of electromagnetic forces.
- ... of all the wires (active dipole, directors, reflector) appear in the impedance matrix.
- I won't answer this question

Question 6

A Yagi antenna is said to have a power gain over a dipole antenna for the same frequency band because ...

Possible answers for question 6:

- ... it radiates more power than a dipole.
- ... it concentrates the radiation in one direction.
- ... it can be used for more than one band.
- I won't answer this question

Question 7

The maximum radiation from a three element Yagi antenna is ...

Possible answers for question 7:

- ... in the direction of the reflector end of the boom.
- ... in the direction of the director end of the boom.
- ... at right angles to the boom.
- I won't answer this question

Question 8

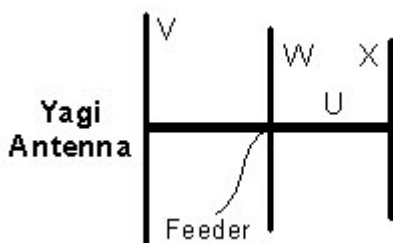
If the distance between the reflector and the active dipole decreases, the module of the current distribution of the reflector ...

Possible answers for question 8:

- ... increases.
- ... decreases.
- ... is not affected.
- I won't answer this question

Question 9

In this diagram the item U, V & X correspond to respectively the ...



Possible answers for question 9:

- ... boom, driven element & reflector.
- ... driven element, reflector & director.
- ... boom, reflector & director.
- I won't answer this question

Question 10

Changing λ (the wavelength of the supplying voltage) between 0 & 1 affects the directivity pattern ...

Possible answers for question 10:

- ... more than changing λ between 1 & 2.
- ... less than changing λ between 1 & 2.
- ... almost the same amount as changing λ between 1 & 2.
- I won't answer this question

see result