

## Response to Referees' comments

We have made corrections in accordance with Reviewer comments:

1. *In the very beginning of the theoretical part at page 1 authors introduce plasma density modulation along the layer. But then the problem with homogeneous density distribution is solved. After that solution authors return to the problem with modulated density. These two different problems should be separated in the paper more evidently.* — Only the problem of modulated density is considered throughout the paper. The case of homogeneous density is not considered in this work.
2. *The geometry of the problem is not clear. Wave vector is defined as 3 componential vector. It is not stated what direction is described by  $K_{\perp}$  component.* — In order to make geometry of the problem more understandable, we have added the figure in which the direction of  $K_{\perp}$  is clarified.
3. *Wave vector is defined in units of  $(\omega/c)$  in line 1 page 2 which can be interpreted as a refractive index. But in the next line the same quantity is used to define the wave electric field with the other dimension  $[1/z]$ . In that definition also the imaginary unit is missed inside the exponential operator.* — Missed dimension in the definition of wave electric field and the imaginary unit are restored.
4. *In the equation (5) the value  $\gamma_b$  is not defined.* — Missed designation of  $\gamma_b$  is now defined.
5. *In the paper the same symbol is used for dimension and dimensionless wave frequency. For example, in the end of page 2 the frequency of excited wave is dimensionless but normalization is not described. Also figure captions have the frequency which is capitalized. Moreover, in fig. 1 two definitions of wave frequency are used simultaneously.* — For

the dimensionless wave frequency and for some other dimensionless quantities, special designations are introduced to avoid a confusion, related mistakes are also corrected.

6. *When authors go to the problem with periodically modulated density they start to use the value  $\mathcal{Q}$  which is not defined in the paper. Thus it is very hard to follow the paper since that particular place. — The value  $\mathcal{Q}$  is now defined.*

All formulas have been also numbered. And at the end of the penultimate paragraph of the section «Beam-Plasma Antenna» a few explanatory sentences have been added.