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On the existence of infinitely many nonperturbative solutions in a transmission eigenvalue problem for nonlinear Helmholtz equation with polynomial nonlinearity

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Highlights

- Phenomenon of nonlinear electromagnetic wave propagation is considered.
- The problem is formulated with physically realistic conditions.
- It is proved the existence of a novel (nonlinear) guided regime.
- The existence of a nonperturbative effect is proved.
- An original analytic approach is used to study the problem.

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