

# **Antenna Array for Broadband Planar Slot Antenna with an Exponential Change in the Slot Width for Broadband Wireless Access Systems**

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**Keywords:** linear array; planar slot antenna; radiation pattern; standing wave ratio; Vivaldi emitters; wireless broadband system.

**Abstract:** The authors considered the problems of constructing linear in-phase equidistant antenna array based on emitters of a broadband planar slot antenna with an exponential change in the slot width for high-speed broadband wireless systems to access a wide range of frequencies. We studied the important aspects of the analysis and synthesis of this type of emitters, and developed a model of the antenna array that can significantly extend the coverage of wireless broadband subscribers, reduce energy costs of the terminal equipment of base stations and increase the capacity of the link.