

APPROACHES FOR DIRECTED STICK RADIATORS

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Abstract

A directed stick radiator is a wave generator, which amplifies the sound emission from acoustic sources. It can operate at relatively broad frequency bands from a few Hz up to 10 kHz. Acoustic waves superimposing of in-phase excited sources leads to amplification and generates special radiation characteristics. The configuration results in a waves pile-up of the amplitude due to the number of emitters involved in a forward direction..

The following basic versions are on investigation:

1. A directed stick radiator based on membranes excited by a waveguide
2. A directed stick radiator with separately excited membranes
3. A “End-fired Line” is included for comparison

Performance and emission characteristics are described.