

# Spatialized, Localized, and Binaural Virtual Surround Sound

Tech ID: 21171 / UC Case 2010-350-0

## TECHNOLOGY DESCRIPTION

UC San Diego inventors have designed a system that takes an arbitrary speaker array and provides focused sound projection that is:

- ▶ Spatialized—present a localized beam of high quality audio.
- ▶ Localized—present no sound for most of the listening area, except a localized area.
- ▶ Binaural—present a sound as being located external to the listener.

Performance improves with the number of speakers in the array. The invention has been implemented successfully on a speaker array driven by specialized software.

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,578,440	02/21/2017	2010-350

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## OTHER INFORMATION

### KEYWORDS

audio engineering, privacy, surround  
sound, hi fidelity sound

### CATEGORIZED AS

- ▶ **Communications**
  - ▶ Other
- ▶ **Computer**
  - ▶ Other
- ▶ **Engineering**
  - ▶ Other

### RELATED CASES

2010-350-0