

# Acoustic Echo Celler

Indesign's Acoustic Echo Celler (AEC) platform is now being made available for product use in devices containing handsfree voice communication speakerphone features. Our AEC algorithm is designed to reduce acoustic echo that arises in communications products where a microphone and speaker are located relatively close together in an open field. By applying our AEC firmware into your device you will save months of valuable product development time while positioning your product ahead of the competition.

As an engineering design services company with over 1200 person-years of product design experience, Indesign has developed an AEC algorithm to meet your product specification needs. Our former Bell Labs DSP firmware experts are equipped to incorporate our AEC algorithm into your existing product or can assist you with implementing the code into any new communications devices that are in the design stage. We can provide object code, source code, documentation and engineering support necessary to integrate the AEC algorithm into your device.

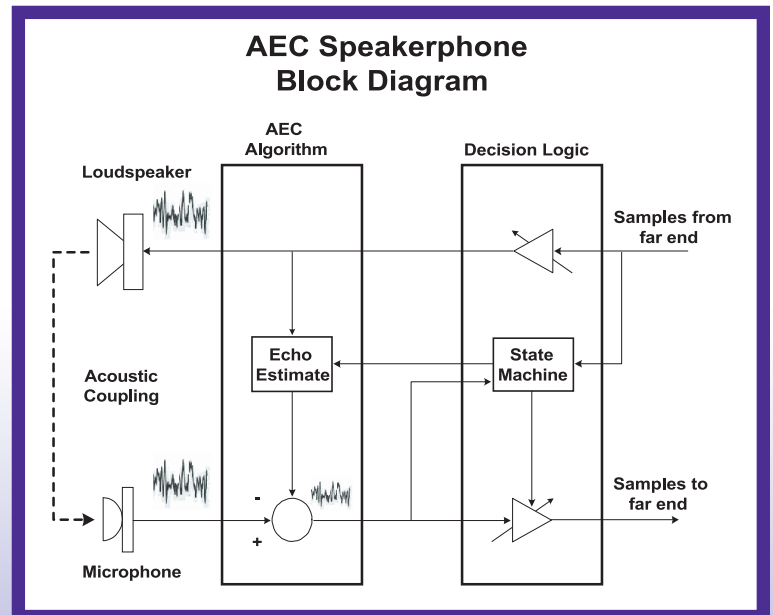
## Examples of Applications:

- Automotive Hands-Free Applications
- Computer Communication Services
- Computer Telephony
- Conference Phones
- DSL Applications
- Internet Appliances
- PDA's with Audio Communication
- Video Conferencing

## Performance Specifications:

- Amount of Cancellation ..... 25 dB of loss due to echo cancellation
- Tail Length ..... 50 ms
- MIPs ..... 12.2
- Convergence ..... ~0.5 seconds
- Memory Size ..... 1200 words RAM/1000 words ROM
- DSP Used ..... Texas Instruments TI54xx or TI55xx Series

Indesign's AEC firmware has been developed for compliance with TI's eXpress DSP Algorithm Interface Standard requirements (XDAIS). XDAIS is a system integration and programming standard that allows for implementation of a DSP algorithm with minimal reengineering, integration and testing effort.



## About Indesign:

Indesign is a multi-discipline engineering design firm that provides full turnkey electronic product development to allow clients to get their new product ideas into the market quickly. Indesign offers complete product development capabilities, starting with a product concept and finishing with a ready-to-manufacture design. Indesign has an ISO certified product development process and a proven track record for on-time, on-budget, high quality product realization.

Indesign provides specific design engineering services and expertise in electrical design, RF/wireless design, embedded software design, and mechanical design. Indesign also provides engineering services and expertise in a variety of other technical areas including systems engineering, human factors, project management and product validation testing. Indesign engineers can complement a client's in-house design engineering staff, working in partnership with clients on joint development projects.



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