

## DENOISER CLEAR VOICE

### Noise Filtration DSP Board

#### Overview

Denoiser Clear Voice automatically removes noise and keeps the useful signal clear and undistorted. It effectively filters out noise generated by air conditioners, street traffic, wind, the power supply hum, engine rumbling, channel interference, atmospheric noise and many other types of background noise. Denoiser Clear Voice dramatically increases speech intelligibility in enabled applications.

#### Applications

The features of Denoiser Clear Voice allows it's use it for:

- ◆ Teleconferencing solutions and IP telephony, superior compression on VoIP
- ◆ Aircraft communication equipment - the use of Denoiser Clear Voice makes the speech of pilots and dispatchers more comprehensible which gives better safety.
- ◆ Voice logging systems and dictation devices
- ◆ ASR systems - Denoiser Clear Voice increases the performance of the most well known ASR engines.
- ◆ Sound processing software for Broadcasting and music restoration

#### Engineering Services

By request, qualified and experienced DSP engineers of Speech Technology Center may customize the Noise Cancellation DSP board according to the requirements of customer. Please, address all the questions regarding the customization to [info@speechpro.com](mailto:info@speechpro.com)

#### Technical Features

- ◆ Signal input:  
One analog stereo input channel for:
  - electret microphone;
  - dynamic microphone;
  - line input;
- ◆ Interface socket:
  - 2 full SPI channels (6 signal lines per channel) capable of transmitting and receiving static signals
  - +3.3 V
  - DGND
  - AGND
  - 2 analogue input channels
  - 2 analogue output channels

*Spring-loaded pins can be used instead of Interface socket.*
- ◆ Supported interfaces:
  - SPI
  - UART
  - GPIO
- ◆ Number of analog inputs: 1
- ◆ Input channel (line in):
  - Nominal input signal range: 1 Veff
  - SNR and non-linear distortion coefficient not less than: 76 dB
  - ADC capacity: 16 bit
  - Sampling frequency up to: 96 KHz
- ◆ Number of playback channels: 2
- ◆ Playback channel:
  - Headphones output (R): 30 Ohm
  - SNR and non-linear distortion coefficient not less than: 76 dB
  - DAC capacity: 16 bit
  - Sampling frequency up to: 96 KHz
- ◆ Size: 50x40x6 mm
- ◆ Operating temperature: -20...+75C