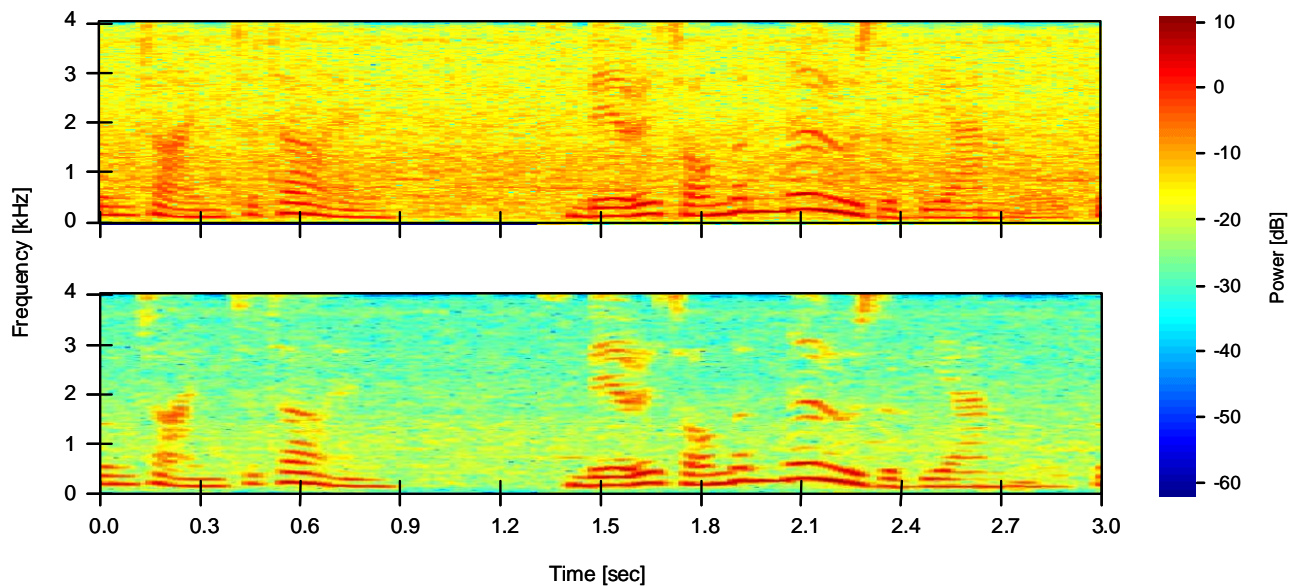**DSPECIALISTS**
Digitale Audio- und Messsysteme GmbH

DSPE-ANC-SO-DIMM

OVERVIEW

DSPECIALISTS' Acoustic Noise Cancellation (ANC) module reduces background noise by 12dB or more and thus provides significant speech quality enhancement in all kind of intercom applications working in noisy environment.

The ANC algorithm works on data coming from a single input channel. It calculates statistical features of the incoming data stream and based on these features it distinguishes between components of speech and noise. The algorithm preserves speech components unchanged, where noise energy is attenuated significantly. It combines maximum noise attenuation with a minimal distortion of the speech signal.

DSPECIALISTS' ANC technology can be utilized effectively in applications, where varying background noise has to be suppressed, e.g. for call centers, handsets or intercommunication systems.
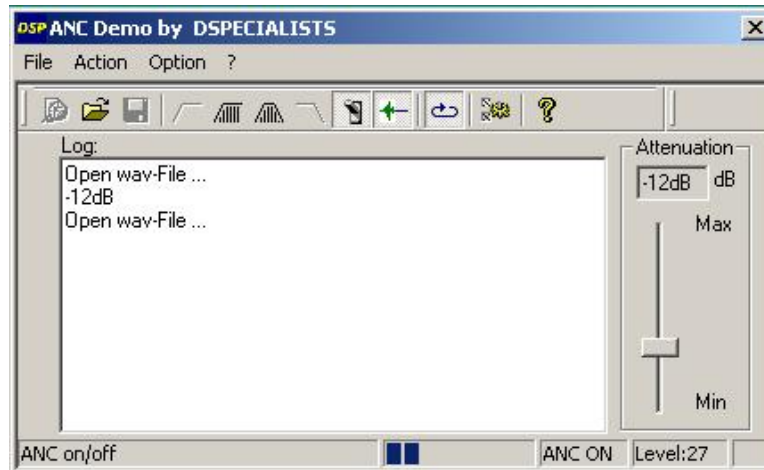

KEY FEATURES

· Very high level of intelligibility and naturalness of the enhanced signal
· Significant improvement of signal-to-noise ratio of up to 20 dB
· Low resource requirements
· Lip synchronous by short signal delay of 13 ms
· PC demo available on demand
· Available as software library for Texas Instruments TMS320CC54/55xx and Analog Devices Blackfin ADSP-BF523/525/527
· Customization and integration possible
· Porting to other platforms on request
· Acoustic Echo Cancellation available on request

PC Demo

The PC demo can be used to process own sample files in wave format. The PC algorithm is identical to the DSP version and thus allows it to evaluate the ANC performance in a very easy and convenient way. Besides the attenuation factor different input filters for band limitation can be applied.

Dialog box of stand alone ANC demo for PC

Technical Specification

·	Noise attenuation:	0..20 dB, up to 12 dB without speech distortion
·	Module:	SO-DIMM, 0.8 mm pitch, 144 pins, compatible socket e.g. MOLEX 54697-7000
·	DSP:	ADSP-BF-527, 533 MHz, other Blackfin derivatives on request
·	Flash Speicher:	8 MB FlashROM, NOR
·	DRAM:	64 MB SDRAM, 133 MHz
·	Power supply:	3.3 V, max. 500 mA
·	Audio channels:	8 digital input and 8 digital output channels (4 x I²S input, 4 x I²S output)
·	Other module interfaces:	10/100 MIPS Ethernet (802.3-2002), USB 2.0 OTG, SPI, I²C, RTC with pins to battery, 2 x UART, GPIO, JTAG

DSPECIALISTS GmbH © 2021

CONTACT US

DSPECIALISTS
Digitale Audio- und Messsysteme GmbH
Helmholtzstr. 2-9 L
10587 Berlin
Germany

Tel: +49 30 467805-0
Fax: +49 30 467805-99
E-mail: sales@dspecialists.de

ABOUT US

The products of DSPECIALISTS are distinguishable by the use of proven standard components. All products can be adapted to our clients' individual wishes. DSPECIALISTS offers anything from the development of customer-specific modules to complete systems. Aside from DSPs, we also make use of PC's, micro controllers and programmable logic.

WEBSITE:

www.dspecialists.de