

2Pi PRESS RELEASE

Vienna October 10th, 2008

Two Pi launches QUADRATE - integrated hearing-aid algorithm suite

Two Pi has announced the launch of QUADRATE, an integrated hearing aid algorithm suite that combines signal processing and fitting software. Designed to fully exploit the processing capabilities of the Ezairo 5900 DSP audiology processor from ON Semiconductor, QUADRATE is targeting sophisticated hearing-aid products in the premium price category.

Incorporating the Q_Fit fitting software, QUADRATE delivers a complete software solution for any hearing aid brand and guarantees rapid product launch.

Q_Fit's intuitive approach benefits both audiologists and their customers by reducing appointment time and ensuring full satisfaction for hearing impaired customers. Based on .NET technology, the package fully supports all SQL-databases and provides fine-tuning tools for in-situ verification.

Q_Fit is optionally equipped with the proven NAL-NL1 fitting rule and can be easily customized by automatically introducing corporate identity attributes such as logos, colours and pictures.

QUADRATE embraces Two Pi's carefully crafted audio processing algorithms, and expands them further to provide the highest signal processing performance as offered by the leading hearing-aid brands.

The novel audio processing algorithm, Acoustic Comfort Optimization (ACO), utilizes generalized signal statistic to relieve transient impulsive noise disturbances. While common noise reduction algorithms do not protect from transient noises like that of clanging dishes, ACO provides exceptional listening comfort without negatively influencing speech intelligibility.

ADAPTIVE FEEDBACK CANCELLATION utilizes the new feedback control technology that is based on supervised cancellation by predicting deviations in feedback path estimation.

The performance of the artefacts-free NOISE CANCELLATION algorithm is being perfected through Time-Constants Optimization (TCO). This feature automatically adapts algorithmic parameters according to the power density of a signal.

The audio amplifier algorithm SWIFT – DYNAMIC RANGE COMPRESSION combines high resolution, linear phase and a processing delay of 2.5 ms surpassing established industry standards.

ADAPTIVE BEAMFORMING acts frequency dependent and can eliminate multiple noise sources. Utmost noise performance is achieved through double-precision pre-emphasis filters.

Two Pi's advanced real-time operating system provides outstanding processing efficiency, synchronizing the execution of algorithmic routines according to their priority. The hearing aid device rapidly adjusts to the fastest changes in the acoustic environment, because the priority of every signal processing task is updated 2,000 times per second! This balancing act results in optimal acoustic performance with very low battery power consumption.

The package is completed with a range of additional features such as automatic telecoil activation, tinnitus masking capabilities or in-situ audiometry.

QUADRATE's comprehensive algorithm suite results from a streamlined scientific program that clearly addresses real-world problems of the hearing healthcare industry.

For further information visit www.two-pi.com

Two Pi Contact:

Two Pi Signal Processing Applications GmbH
Schönbrunner Straße 59-61/23
A-1050 Wien
Ernestine Bennersdorfer
Tel. +43 1 523 81 80
E-Mail: ebenners@two-pi.com