



AlgorKorea



Algorkorea tells you
a happy story





We continually strive hard to help you listen and enjoy the world around you. Algorkorea is a venture company in ultra miniature DSP IC embedded firmware and control technology.

Next generation digital hearing aids developed and manufactured by Algorkorea, offer promising digital hearing aids for specific needs of customers by individual optimal fitting service. Algorkorea has grown into the most advanced digital hearing aid company through continuous research and development in the last decade.

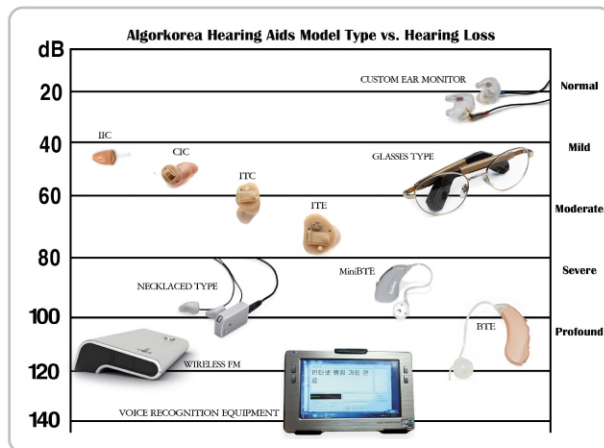
We promise to be a world wide recognized digital hearing aid enterprise by further continual R&D in the next decade.

Globalization by new technology development will promote Algorkorea to be a world known hearing aid brand.

We will do our best not forgetting that our growth and progress relies on our customers' faith and trust in us.

Thank you

CEO of Algorkorea **Soon-Suck Jarng**



CV of CEO

- Master Degree of Ear Physiology at College of Medicine in Uni. of Birmingham, UK
"A Computer & Experimental Study of Cochlear Function",
M.Sc. Thesis, University of Birmingham, Science Faculty
- Doctor Degree of Acoustics at Dept. of Electrical and Electronic Eng. in Uni. of Birmingham, UK
"SONAR Transducer Design & Optimization using the Finite Element Method",
Ph.D. Thesis, University of Birmingham, Engineering Faculty,
- Diploma Degree of Electronic Engineering in Hull University, UK
- Bachelor Degree of Electronic Engineering
in Hanyang University, Korea
- KAIST IDEC (Semiconductor Design Education Center)
WG senior member
- Chosun University Professor specified
in digital signal processing at College of Engineering
and College of Medicine
- 30 years research on digital hearing aids,
digital signal processing, semiconductor chips
and ear physiology



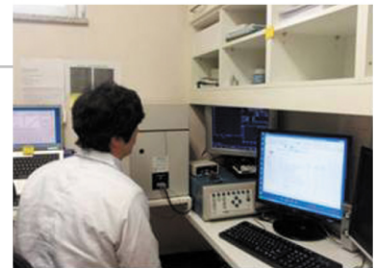


2004~2006

2004~2012 Hearing aid chip research at IDEC Working Group

2006 Venture Company Certification, Selected as the IT Excellent new technology company by The ministry of information and communication, Selected for a Technological Innovation Development Project by Small and Medium Business Administration

2006 Registration of factory, KGMP Approval for manufacturing hearing aids



2007~2008

- 2007** Selected for a Technological Innovation Development Business Strategy Project by SMBA
- 2007** Selected and awarded as the 100 Excellent Patented Product
- 2007** Established Algorkorea Hearing Impairment and Auditory Rehabilitation R&D institute
- 2007** Authentication on R&D Service Trade by Ministry of Education, Science and Technology
- 2008** Promoted as Algorkorea Co. Ltd.
- 2008** Selected for an IT Industrial Competitiveness Project by Ministry of Knowledge and Economy



2009~2010

- 2009~2010** Selected for a Healthcare Technology R&D Project by Ministry of Health and Welfare
- 2009** Completed building the Seoul Branch in Seoul (April 30th)
- 2010~2011** Gwangju Daily Newspaper-Algorkorea MOU Conclusion for Hearing Aid Sharing Love Campaign
- 2010** Selected as a Customized Production Enterprise by Korea Disabled Employment Corporation
- 2010~2012** Selected for an Export Capacity Strengthening Project by SMBA



2011

- 2011~2012** Selected for an Academy-Industry Cooperation Project for Speech Recognition Hearing Aid by Ministry of Health and Welfare
- 2011** Signed an exclusive contract for hearing aids sales in China between Tagene and Algorkorea
- 2011** Selected as a Global IP Star Enterprise by Gwangju IP Center
- 2011** Signed an exclusive contract for hearing aid sales in USA between Algoramerica and Algorkorea
- 2011** Signed an exclusive contract for hearing aid sales in Romania between Microcomputer Service SA and Algorkorea



2012

- 2012** Opened a sales agency in Busan. Launched a Hearing aid sharing campaign between Busan Peace Broadcast Co. and Algorkorea
- 2012** Launched iClear, a 64 Channel digital hearing aid and a 256 Channel Tinnitus Masker. Won award for developing the best Active Noise Masker by SMBA (No. 9382)



Competitive 1

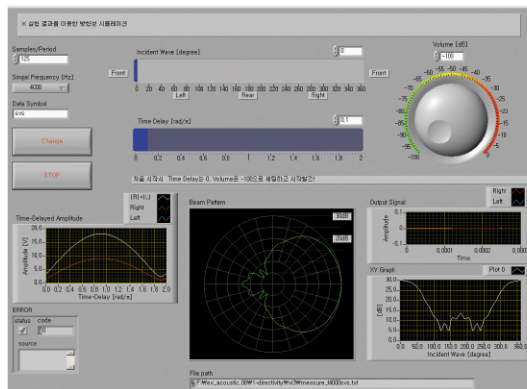
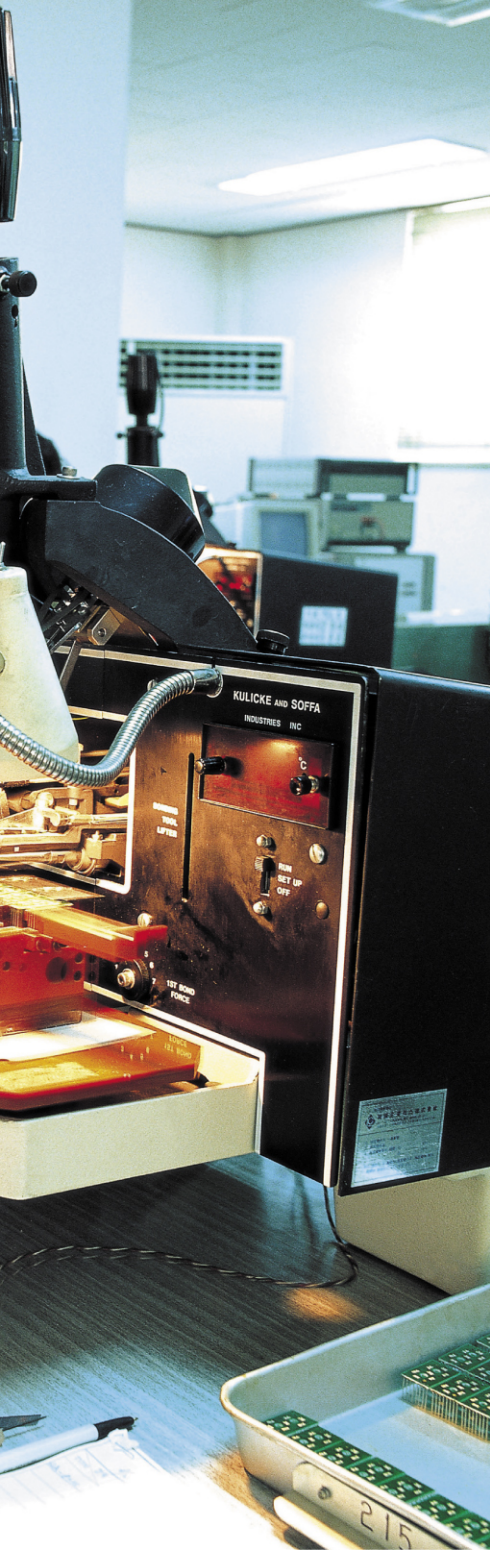
Ultra-miniature low-power DSP chip firmware & control technology

- Launched the world's first CiC 64 channel digital hearing aid firmware, iClear64
- 125Hz frequency band, accurate non-linear compression and a 93dB input dynamic range features ideally realize the active bio-mechanical function of the deteriorated cochlea of the hearing impaired.
- 64 channel superior frequency resolution dramatically improves the speech discrimination for patients with Presbyterian hearing loss.
- The fitting program supports convenient after service (A/S) management by the integration of microphone and receiver calibration program.
- The real ear measurement done while the hearing aid is inserted inside the ear canal automatically executes the best optimal 64 channel fitting process for individual customer's hearing status.
- The external noise masking feature, which functions similar to the cochlea, has been integrated into the firmware.

Features

- 100% DSP 64 Channel Digital Hearing Aid, FFT-IFFT SAM Nonlinear Compression
- IIC / CiC / ITC / ITE / BTE models
- Integrated Microphone and Receiver Calibration, 93 dB input Dynamic Range
- Simultaneous Attack Time and Release Time,
- Real Ear Measurement & Automatic Fitting
- 64 Bands Equalizers, Squelches, AGCO
- Real Ear Feedback Detection, Automatic Adaptive Feedback Cancellation
- Selective Noise Reduction by Masking Effects, Single Microphone Input or Two Microphones' Input
- 32 Steps Volume Controller





Competitive 2

Digital hearing aid manufacturing and fitting specified technology

- For the first time in Korea an audiogram recording and saving management program (ARCISM) is implemented.
- Digital hearing aid Firmware & Fitting program (HAFS)
- Directional hearing aid fitting program (DIHAS), KGMP approved.
- Digital hearing aid remote fitting system established via internet
- Diverse models have been launched in different size (IIC / CIC / ITC / ITE / miniBTE / BTE), features and design (Spectacle/Necklaced/FM Wireless)
- Mass production of hearing aids by FPCB design technology and three dimensional ear canal CAD/CAM
- ISO 9001, ISO 13485, CE, FDA, sFDA, GS International Certificates

Technologies

- 2~64 channel firmware development
- Precise fitting software development
- Mass production of earshell by statistical ear canal standardization
- FPCB faceplate design patented
- Ultra-miniature hearing aid manufacturing



Competitive 3

Tinnitus treatment device development technology

- Electronic Tinnitus Masker launched as an in the ear or behind the ear model
- Masking sounds are generated for tinnitus treatment after white noise, pink noise, brown noise, FM noise, and arbitrary sounds are saved into the hearing aid,
- 139 dB SPL maximum sound level can be decreased in 32 digital steps
- Only single IC chip is used (CODEC, DSP, EEPROM, I2C & PC interface modules are all included)
- Tinnitus (Ear Ringing) can be reduced by the superposition between the tinnitus sound of the cochlea and the masking sound of the masker
- Tinnitus treatment digital hearing aid fitting software (GS: Good Software) officially approved.

Features

- 100% DSP Single IC Chip Firmware installed
- 16 kHz Sampling Frequency
- CIC / ITC / ITE / BTE Models available
- 32 Steps Volume Controller
- 139 dB Maximum Output Sound Pressure Level
- 16 bits per Sample without Modulation
- Up to 27520 Samples stored in EEPROM
- WAV File Input to generate a Sinusoidal Sound Wave Output
- WAV File Input to generate an arbitrary Sound Wave Output
- White Noise, Pink Noise, Brown Noise, FM Noise Output
- Fitting Software in Microsoft Windows OS





Competitive 4

Speech Recognition SW development technology

- Speech recognition rate verse environmental noise has been much improved by bluetooth microphone and/or multichannel microphones' application
- Environmental adaptive speaker-independent speech recognition: Most of previous SR systems have low recognition rate problems due to comprehensive vocabularies. The present system targets the 1000 limited vocabularies frequently used in the live environment so as to increase the speech recognition rate, e.g. pharmacy, bank, public windows, hospital, restaurant etc.

Features

- environmental adaptive Korean speech recognition
- usage of bluetooth microphone in severe noisy atmosphere
- usage of multi microphones in less noisy atmosphere
- installed pre- noise reducing processing algorithm
- rejection feature for unwanted vocabulary
- a recognition rate of greater than 96%
- recognized voice displayed in the mobile monitor
- possible for customized vocabulary extension

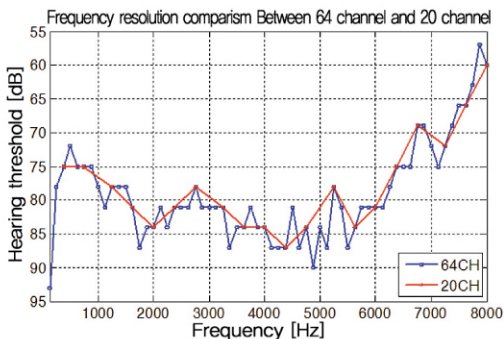
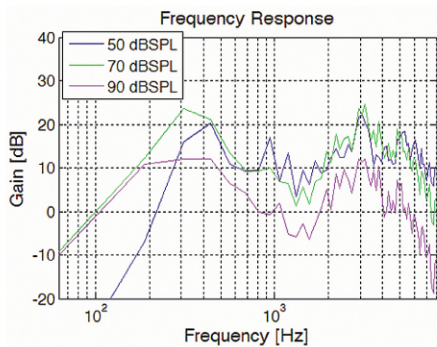
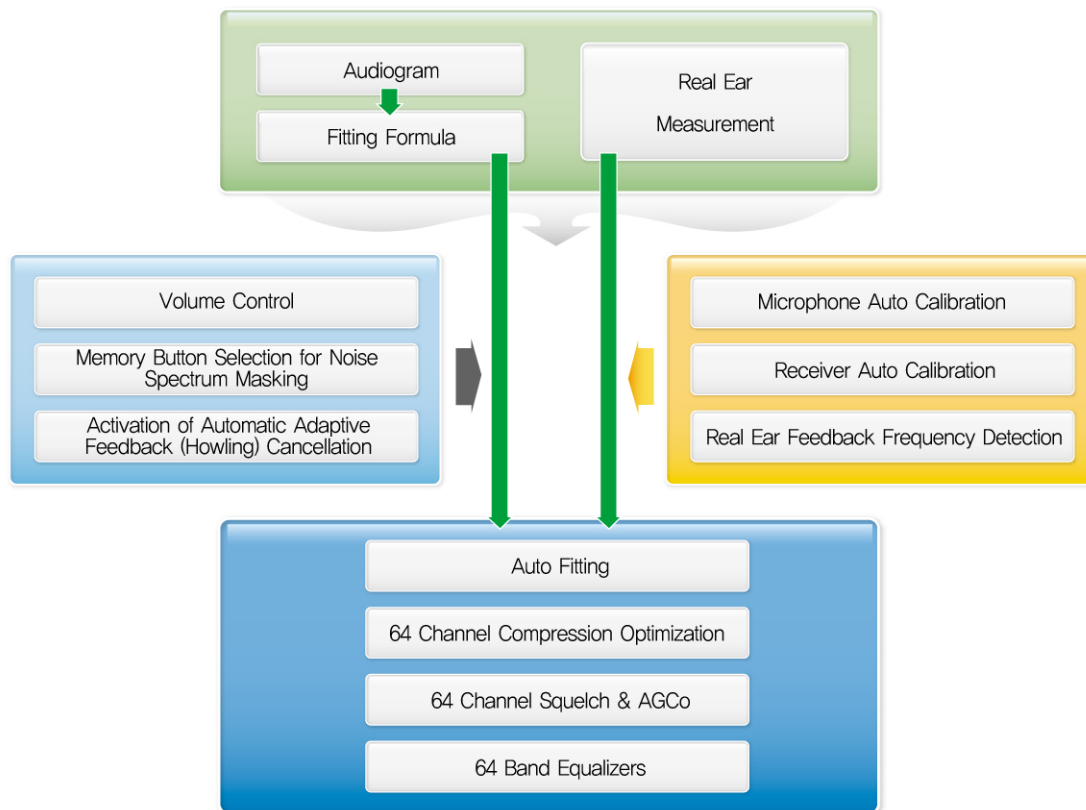
64 channel digital hearing aid completed by AlgorKorea high technology

125Hz frequency band accurate non-linear compression and 93dB input dynamic range features ideally realize the active bio-mechanical function of the deteriorated cochlea of the hearing impairment. 64 channel superior frequency resolution dramatically improves the speech discrimination for patients with presbyterian hearing loss.

The fitting program supports convenient after service (A/S) management by the integration of microphone and receiver calibration program. The real ear measurement done while the hearing aid inserted inside the ear canal automatically executes the best optimal 64 channel fitting process for individual customer's hearing status. The external noise masking feature, which functions similar to the cochlea, has been integrated into the firmware.



64 channel digital hearing Features



We offer optimally fitted hearing aids for individual customer's desire and auditory threshold by diverse models and features

IIC/CIC/ITC/ITE Hearing Aid

Wide choice from a economical 2 channel to a premium 64 channel

- Equalizer and tinnitus repression (above 8 channel)
 - For severe hearing impaired who want a CIC/ITC/ITE type (Clear Z or Clear Q8 model)
 - Wearing binaural hearing aids certainly offer directivity of sound and speech discrimination
 - Advanced hearing aid for customers who want advanced sound quality (Clear U2 32 channel, iClear 64 channel)
 - Low price Entry-level hearing aid (Clear K2, K8 model)
- Suitable for mild/intermediate hearing loss
 - Automatic adaptive feedback cancellation
 - Real ear measurement (above 8 channel)
 - Battery warning sound, ZincAir 10A, 312, 13 Battery



BTE hearing aid

Premium Behind the Ear

- Suitable for intermediate/severe hearing loss
- 100% DSP Premium
- Telecoil mode for telephone communication
- Automatic adaptive feedback cancellation
- Automatic adaptive noise reduction (real time 128 bands equalizer)
- Choice for 4 channel or 8 channel or 64 channel
- Battery warning sound, ZincAir 10A, 312, 13, 675 Battery



Necklaced type hearing aid

Patent registered necklaced type hearing aid

- Minimal risk of losing the hearing aid
- Suitable for the elderly and moderate, severe and profound hearing impaired
- 2 channel and 5 bands WDRC compression
- One price for both ears (separate volume control for both ears)
- Almost no sound feedback with customized earmolds
- Hearing aid with high output and high sound quality
- Battery warning sound, ZincAir 13 Battery
- Embedded with nonlinear AGC circuit
- 2 channel independent squelch control
- 4 user selective memory (optional)
- customized ear mold (optional)



FM Wireless Hearing Aid

FM Wireless 4 Channel Digital Hearing aids

- It is good in a scenario, when you have to listen to a lecture in a school, an institute, a seminar or a conference or just about any closed environment.
- If you place the wireless transmitter in front of the moderator / preacher / teacher, and put the wireless receiver in your pocket, you can hear clear speech with earphones in both your ears.
- Passed all electromagnetic wave tests.
- Almost no sound feedback.
- Appropriate for profound hearing loss.
- Uses a high performance 4 channel digital chip, microphone and earphone.
- Respectively, uses a AAA battery in the transmitter and receiver
- Include DAI (Direct Audio Input) socket



My Own Stereo Customized Receiver

providing the most advanced quality of sound for people who love music.

- Stereo Customized Receiver
- Flat frequency response curve with two dual receivers
- The stereo customized receiver's sound isolating feature makes it ideal for the ambient noisy environments.
- Option : Separate volume control for both ears



Algorkorea achieved many Specialized Patents, International Technology Certificates, Global Advance Approvals about hearing aids.

Algorkorea is a venture company specialized in high performance digital hearing aids. Globalization by new technology development will promote Algorkorea to be a world known hearing aid brand.

Official Certificates

No.	Technology Certification	Certification Number	Approval Organization
1	Venture Company	제20100101011호	KIBO Korea Technology Finance Cooperation
2	INNO-BIZ	제9045-1238호	SMBA Small Medium Business Administration
3	ISO 13485:2003	NO-908128	IQNET (Finland)
4	ISO 9001:2008	NO-800385	IQNET (Finland)
5	KGMP	KETI-AB-110145	KFDA(Korea Food & Drug Administration)
6	GS(Good SW)	FP541-99	KTL(Korea Testing Laboratory)
7	IP Star Enterprise	2011-25	KIPO Korean Intellectual Property Office
8	Promising Leading Enterprise	2011-191	Gwangju Metropolitan City
9	FDA	D121645	Food & Drug Administration in USA
10	SFDA	1104628	Food & Drug Administration in China
11	Company Attached R&D Institute	20074287	Korea Industrial Technology Association
12	R&D Service Trade	20071010	Ministry of Education, Science, Technology
13	CE(K8,B,ND)	EU0907401,2,3	Nemko

Domestic & International Designs and Trademark Rights Registration

No.	Category	Title	Registration Number
1	Domestic (Korea) Design	Hearing Aid	30-2011-0044040
2	USA Design / Solar Charging Hearing Aids	Solar Charging Hearing Aids	29/371,870
3	China Design		201130424238, 4
4	Trademark Rights	Algorkorea	41-2010-0027817

Domestic (Korea) Registered Patents : Digital Hearing Aid Signal Processing Method (10-1156648) and other 13 registered and 11 applied

International Registered patents : Method of manufacturing faceplate for in the ear hearing aid (USA 7,906,006 B2) and other 3 USA & China registered and 4 PCT applied

Domestic (Korea) Software Registration : HAFS (Hearing Aid Fitting Software) and 7 others

The effort **Algorkorea** puts into improving sound quality in its hearing aids comes from its affection towards its customers.



AlgorKorea



www.hearing-aids.co.kr

www.algorkorea.com

[Seoul] 9F, Algorkorea Building, 449-3 Gangnam-Daero, Seocho-Gu, Seoul
T.02)536-6523, 070)7582-6110 / F.02)536-6524

[Gwangju] #6117, #6119, College of Electronics and Information Eng., Chosun University, 309, Pilmoon-Daero, Dong-Gu, GwangJu
T.062)230-7767, 070)8223-6120 / F.062)226-3211