

Low-Power-Consumption Noise-Cancellation IC

The highest level*1 of denoising performance in the industry.

The noise component has been **reduced to 1/20 or less.**

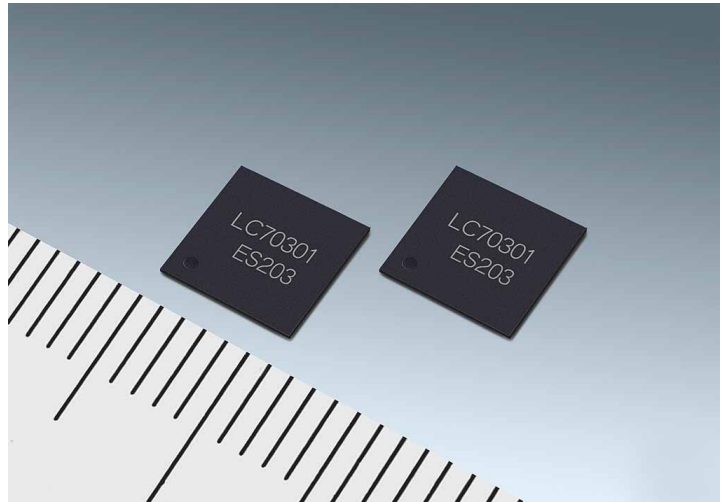
Note1: as of November 10, 2008

power consumption has been **reduced by 50%** as compared with conventional products!

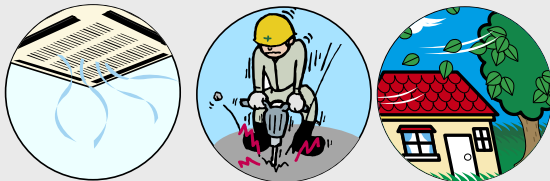
LC70301LG/KLG/W



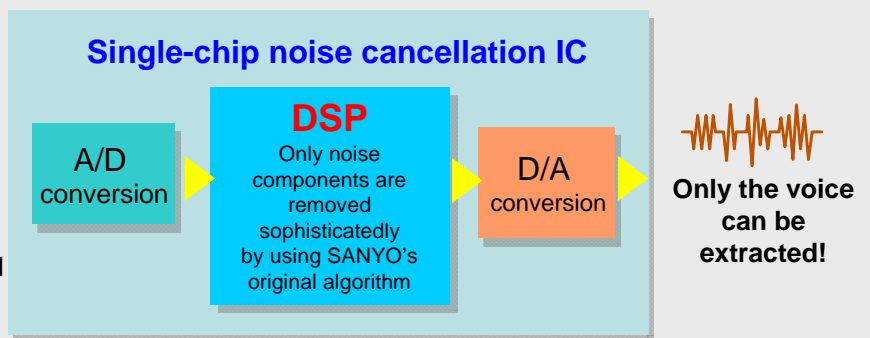
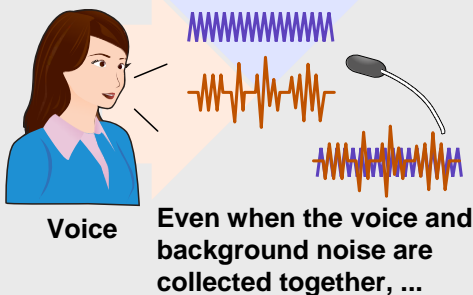
Mountable to power-saving and small mobile devices!



Features of SANYO Noise Cancellation Processing



Air conditioning noise, construction site, wind roar, etc.



Package miniaturization

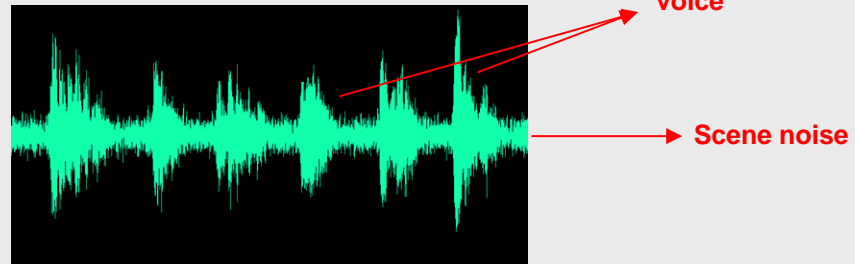


Area Δ 64%
Volume Δ 83%

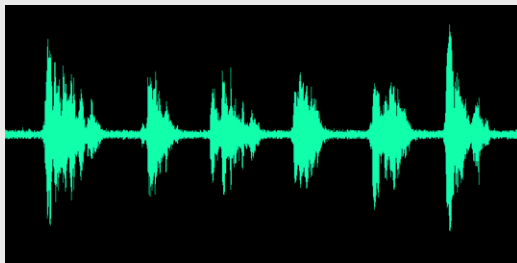


Improvement of Denoising Performance

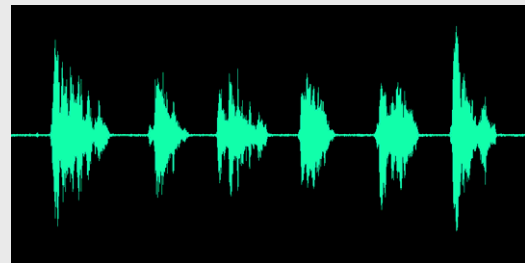
Before noise cancellation processing



Medium-level noise cancellation
(noise component 1/10)



Strong-level noise cancellation
(noise component 1/20)



Features

- DSP : 16bitDSP core
Noise cancellation processing, Filter processing, Various voice processing(Voice emphasis, voice speed conversion)
Power save mode(Oscillation stop,PLL stop, High-speed operation ↔ Low-speed operation switch)
- Host CPU interface (4 line):Slave (GPIO0-3 and using combinedly)
- Serial PCM interface(4 line):Master/slave:2 systems(GPIO4-7,GPIO8-11 and using combinedly)
I²S, Long frame synchronization, Short frame synchronization : It corresponds to Fs=8KHz/16KHz
- GPIO:16port(Host CPU interface, cereal PCM interface, and it uses it combinedly to GPIO0-12.)
- A/D Converter ($\Delta\Sigma$ method16bit 8KHz/16KHz)
- D/A Converter ($\Delta\Sigma$ method16bit 8KHz/16KHz)
- Package:FLGA68K(6.0mm x 6.0mm x 0.8mm) LC70301LG
FLGA64(5.0mm x 5.0mm x 0.8mm) LC70301KLG
SQFP64(10.0mm x 10.0mm x 1.7mm) LC70301W
- Power-supply voltage:3 voltage(1.8V/2.8V:1.7V to 3.6V(IO),
2.8V:2.7V to 3.6V(analog),
1.1V \pm 10%(Internal logic))