

# S-Cube Development Kit (SCDK™)



*Every Sound Counts*



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## S-Cube Development Kit (SCDK™) - Silence in a Chip

### Active Noise Reduction (ANR) - The solution for electronically generated noise pollution

Noise pollution from a wide range of electronic equipment causes stress-related health problems, impairs hearing, and adversely affects productivity and communication. Silentium's Active Noise Control (ANC) and reduction solutions contain cutting-edge technology delivering more than 10dB(A) noise reduction across the entire audible spectrum. Applications include noise reduction for server/networking equipment, HVAC equipment for both the residential and automotive markets, white goods and more.

### Silentium Technology for a Quieter World

The SCDK is a powerful, integrated, centralized digital signal processing (DSP)-based system that provides a do-it-yourself ANR development tool. Developers and engineers can leverage it to implement noise and vibration reduction. The controller unit integrates all the required functions: Sound generator, equalization, amplification, and the active adjustment processor. The controller is connected directly to the loudspeakers.

The controller allows the designer to create broadband noise and vibration reduction solutions, achieving up to a 10dB(A) reduction on top of what acoustic materials diminish.

### SCDK Benefits

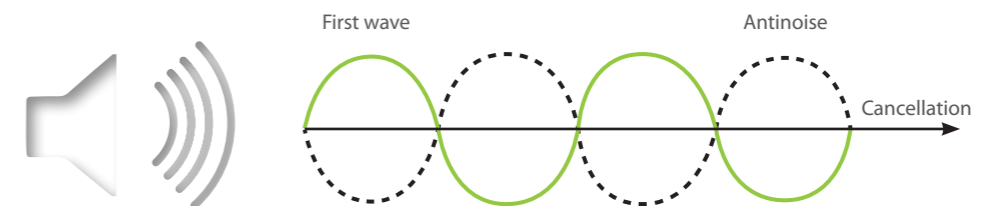
- Up to 90% noise reduction
- Quieter products = Distinct competitive advantage
- Meets and exceeds the growing body of noise-related regulations
- ANR greens everything it touches
- Saves energy
- Eliminates the need for inefficient silencer labyrinths
- Better product noise quality

### SCDK Features

- Broadband noise reduction up to 10dB(A) beyond the reduction achieved by acoustic material
- Adaptable for both point-to-point and point-to-zone Active Noise Control applications
- Ideal for acoustic and vibration applications
- Real-time adaptive algorithms
- Self-calibrating system
- Standalone mode (operate after power up)
- User-friendly, PC-based USB interface for the calibration process
- Full ANC workshop booklet

## How does Active Noise Reduction (ANR) work?

Silentium's innovative Active Noise Reduction solution provides you with the capability to allow undisturbed airflow while preventing noise from escaping. The concept of ANR is based on the production of an "anti-noise" signal that destructively interferes with the original sound, canceling it out.



Silentium has developed a unique ANC technology incorporating proprietary, innovative algorithms that adaptively follow the changes in the noise spectrum, achieving extraordinary results of almost 10dB(A) noise reduction. It allows an undisturbed airflow path while preventing noise emission. Silentium's solution is unlike previously designed ANC systems. It extends the low frequency range of signals, up to 1800Hz, eliminates single tones, and phases out the use of error microphones. The result is a small, low-cost highly effective solution to low/medium-frequency noise, producing successful commercial solutions across applications.

