



SiTel Semiconductor B.V.: Recipient of the  
2009 Global Enterprise VoIP Semiconductors  
Green Excellence Award in Product Innovation



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*"We accelerate growth."*

## 2009 Global Enterprise VoIP Semiconductors Green Excellence Award in Product Innovation

**Award Recipient: SiTel Semiconductor B.V.**

### Award Description

The Frost & Sullivan Green Excellence Award in Product Innovation is presented to a company that has demonstrated unique product design and development initiatives, which is aligned with a sustainable and environmentally conscious objective within its industry sector. This Award signifies the company's identification of an unique and revolutionary solution with significant environmental benefits, while presenting tremendous market potential simultaneously. Moreover, the Award also signifies that the company's overall business strategy is sound and poised for success.

### Research Methodology

Product innovation, focused on environmental priorities and long-term sustainability, is assessed regularly through continuous monitoring amongst market participants within specific industry sectors. Frost & Sullivan's analyst teams perform extensive interviews with companies within specific industries to evaluate their products, technologies and business strategies. In addition, research within that market space is performed to benchmark the Award recipient's product line against others. Also considered are elements such as strategic alliances, expected time to market, environmental soundness, long-term green strategies, and management advocacy behind the success of the product.

### Measurement Criteria

Specific measurement criteria used to determine the final award recipient are as follows:

#### Product Profile

- Product platform characterized by long-term sustainability
- Streamlined design that enhances product efficiency
- Adaptability and responsiveness of the product to address changing environmental needs and priorities

#### Business Commitment

- Entrepreneurial dexterity in incorporating conservation into the business concept
- Development of product solutions to address concerns regarding climate change
- Industry's acknowledgement of the green initiative in question, by way of financial support, strategic support, and recognition as a pioneering venture

#### Environmental Accountability

- Demonstration of obligatory responsibility in reducing environmental burden as part of the solution (e.g. cradle to grave solution)
- Inherent features that enhances adoption / participation rate
- Creation of collective accountability towards reducing the impact of climate change, dependency on finite resources and ecological footprint

SiTel Semiconductor B.V. was the Dutch business unit of National Semiconductor Corporation in the past. In June 2005, the company was established as an independent fabless IC manufacturer after a successful management buy-out. SiTel is headquartered in The Netherlands and offers leading-edge products that target a range of applications including cordless phones, enterprise voice over Internet protocol (VoIP) phones, cordless game controllers, and integrated access devices.

### Architecture that Lends Itself to “Green” Efficiency

At the heart of SiTel’s enterprise VoIP platform is its family of flexible VoIP processors that are based on a proven multi-core architecture. Because the architecture makes use of multiple processors, the company realized that it would be able to tweak the same to achieve power efficiency. The availability of multiple functional blocks provides the option of turning on or off individual functions based on their usage. This is in contrast to most other VoIP solutions in the market that tend to employ a single large processor running at a high clock frequency. The higher clock speed ends up using more power whereas SiTel’s multiple smaller processors can run on lower clock frequencies and therefore save power. SiTel’s approach allowed approximately a 50 percent reduction in power consumption for its first Green VoIP processor compared to competing enterprise VoIP solutions.

SiTel has implemented its Green VoIP solutions using a combination of an effective architecture, process technology, and software. The software allows SiTel to control not only different blocks of the chip but also parts residing outside of the chip. For e.g., software schemes have been used to turn on/off the liquid crystal display (LCD) and control the brightness of the LCD.

### Flexible VoIP Processors

SiTel’s first low-power VoIP processor was the SC14450 followed by the recently announced SC14452. The next-generation processor achieves additional power savings of about 200 mW and also incorporates a host of value-added features. It integrates digital enhanced cordless communications (DECT) capability and employs dedicated cryptography to ensure call confidentiality. It can handle five-way conferences because of the large embedded memory and offers outstanding voice quality. The SC14450 required an external Ethernet MAC PHY as well as a switch. With the SC14452, SiTel has gone one step further by integrating the Fast Ethernet 10/100 MAC.

SiTel’s Green VoIP processors have been well-received by the market and have secured many new design wins. The ability to reduce power consumption in particular has influenced purchasing decisions and has helped the company capture design wins from competitors.

### Benefits to Customers

SiTel’s Green VoIP processors reap benefits for the company’s direct customers as well as the end-users of enterprise VoIP. Customers of SiTel can improve their product’s efficiency and lower power consumption by choosing to incorporate the Green VoIP processors. They can use the green implementation as a unique selling point to entice customers to buy their products. For the end customer, the cost of operation is lowered as every watt of savings achieved translates to a US dollar saved. Also, the end customer’s ecological footprint is lowered as their products consume lesser power.

In order to enable customers to reduce time-to-market, SiTel offers modified development kits with its low-power VoIP processors, the SC14450 and the SC14452. The development kit has been updated for the new processor and can be modified to target different applications. The development kit is currently available and SiTel is witnessing strong sales of the same.

## Conclusion

SiTel's innovation with the Green VoIP product line not only allows the company to meet current European Union (EU) regulations but also makes it well-prepared for EU regulations expected to be in place by 2012. The company's focus on green practices extends beyond its product line to include certification for ISO 14001:2004 in 2008. Frost & Sullivan is therefore proud to present SiTel with the 2009 Global Enterprise VoIP Semiconductors Green Excellence Award in Product Innovation.

## About Frost & Sullivan Green Excellence Awards

Instituted as an integral part of the Environment & Building Technologies Practice of Frost & Sullivan, Green Excellence Awards are presented to companies that have excelled in green product and technology innovation, and service achievements. These Awards recognize groundbreaking ideation and innovation across a multitude of disciplines that originated from a firm sense of environmental responsibility. Recipient companies are committed to a continuous focus on reducing the dependency on finite resources, from concept to commercialization. Their efforts demonstrate a resolve to reduce the impact of climate change and overall ecological footprint.

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.



### About Frost & Sullivan

Frost & Sullivan, the Global Growth Consulting Company, partners with clients to accelerate their growth. The company's Growth Partnership Services, Growth Consulting and Career Best Practices empower clients to create a growth focused culture that generates, evaluates and implements effective growth strategies. Frost & Sullivan employs over 45 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 30 offices on six continents. For more information about Frost & Sullivan's Growth Partnerships, visit <http://www.frost.com>.

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