The Tinker's Toolbox - Melissa Chee of Fresco Microchip on Consumer Product Design

Hosted by Alix Paultre, the Tinker's Toolbox is the Advantage Design Group's web-based interview show where we talk about the latest technology, components, and design issues for the electronic design engineering community.

In today's podcast we talk to Melissa Chee of Fresco Microchip, a leader in RF, analog and digital semiconductors, about consumer product design. We discuss issues such as addressing consumer needs and regulatory requirements in different markets as well as issues of system integration and device compatibility.

Here is the link to the podcast to download or listen to: Melissa Chee Interview [1].

Here is a recent press release from the company:

Fresco Microchip, a developer of leading-edge RF, mixed-signal, and digital signal processing integrated circuits (ICs),
announced the FM5150A, its silicon tuner for global hybrid terrestrial and cable television.
The TV industry is migrating from traditional tuner CANs using hundreds of discrete components to silicon tuner-based CANs and on-board designs in order to achieve lower costs and smaller form factors. The vast majority of new tuner designs use silicon tuners. In fact, industry experts estimate nearly 50 percent of TV tuners shipped in 2012 will be silicon-based, growing to more than 80 percent by 2015.

In the past, CAN tuners included an integrated analog demodulator, digital

demodulator, SAW filters and IF amplifiers. Recently, these functions have migrated from the CAN into the most popular TV system-on-chips (SoCs). At the same time, many existing silicon tuners retained some of this functionality, adding unnecessary system cost and complexity. Fresco's Simply RF™ silicon tuner architecture eliminates these expensive redundant circuits to deliver the industry's lowest system solution cost.

"The proliferation of silicon tuners in mainstream tuner CANs and on-board designs continues to accelerate as TV manufacturers seek silicon solutions that meet Fresco Debuts Simply RF Silicon Tuner for Global Hybrid TV Page 2
aggressive cost targets and stringent performance requirements," said Takayuki Maruhashi, director, Techno Systems Research. "The ability to align with the industrywide shift toward increased integration of select functions in the TV SoC is critical to achieve system cost reduction."

The FM5150A is the latest addition to Fresco's silicon tuner product family. The chip seamlessly interfaces to TV SoCs to optimize tuner CAN and on-board designs. Featuring Fresco's Simply RF™ silicon tuner architecture, the FM5150A eliminates the effects of digital noise from microprocessors and digital processing commonly found inside existing silicon tuner designs. The chip features fully-integrated tracking filters and LNA. No external input transistors, pin diodes or baluns are required. Key performance advantages include industry-leading noise figure, superior image rejection, and intelligent real-time optimization of noise figure and return loss in cable and terrestrial environments.

"Fresco is capitalizing on its market leadership in analog and digital television with the expansion of our game-changing silicon tuner product line," said Lance Greggain, CEO, president and co-founder of Fresco Microchip. "Through our ongoing focus to deliver value through innovation, Fresco continues to change the industry paradigm."

Further information is available at http://www.frescomicrochip.com [2].

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http://www.ecnmag.com/podcasts/2012/01/tinkers-toolbox-melissa-chee-fresco-microchip-consumer-product-design?qt-recent_content=0&qt-video_of_the_day=0

Links:
[1] http://www.ecnmag.com/sites/ecnmag.com/files/legacyfiles/ECN/Multimedia/Audio/2012/01/fresco.MP3
[2] http://www.frescomicrochip.com