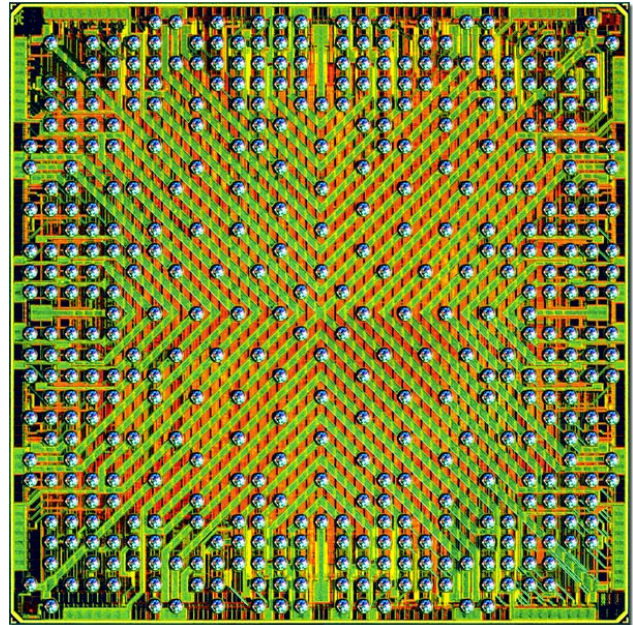


# PerceptionDIGITAL

## DIGITAL SIGNAL PROCESSING (DSP)

Refers to the processing of signals by digital means. In the case of digital consumer electronics, this processing refers to the transformation of digital signals from one form to another through the performance of numerical computations. The main applications of DSP are audio signal processing, audio compression, digital image processing, video compression, speech processing, speech recognition, digital communications, etc.

Digital signal processing can be performed on a variety of computing and logic circuits, including application-specific integrated circuits (ASIC), dedicated digital signal processors (also referred to as a DSP), microcontroller units (MCU), and application specific microprocessors (MPU), among others.



To enable digital signal processing, firmware is embedded into circuit. As a program required to control electronic devices, firmware is the mind where circuit is the brain which work together to control the device's operations and functions.

## Digital Signal Processing is our Core Competency

At Perception Digital, we specialize in digital signal processing techniques and provide embedded firmware. Three main categories of consumer electronics products are enabled through our digital signal processing technologies:

- (1) well-being and fitness products featuring biometric measurement functions such as heart rate monitors and pedometer functions;
- (2) personal portable entertainment devices, such as portable media player and digital audio players; and

(3) "lifestyle" consumer electronic devices such as mobile phones, smart phones, multimedia Internet devices, digital mobile televisions, netbook and tablet computers.

Using digital signal processing, the list of products that Perception Digital can enable has no limit. It may include set-top boxes; various biometric monitors, motion detection devices, global positioning system devices, game consoles, etc.

### **Make your move!**

If you are a consumer electronics brand name, we can serve you by providing product concepts based on the latest technology trends and available processors and components; designing and developing state-of-the-art devices at your specified costs, and delivering the packaged products, supervised and quality assured by our project engineers and quality specialists.

If you are in toy industry, we can certainly help by injecting technology to the toys to increase the appeal to children, and parents. We have designed and developed electronic photo frames with "moving" animated characters which add fun to photo display; personal video players for a prestige cartoon production house, with digital right management function to protect the content from being copied; and electronic music players for 1-3 years old kids which is molded from rubber that meets FDA food-grade specifications.



If you are a mobile network operator, we have products that can increase your APRU and bandwidth usage! Image a GSM device that constantly tracks a kid or elderly through your network and send SMS to a group of family members, low priced phone for travelers to make call in a visiting city and top up as needed, and Android device with sizable screen for on-line video, messaging, and nice user interface and outlook, to bundle with monthly subscriptions.

Please visit us at:

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