Holtek

Holtek Semiconductor Inc.

盛群半導體股份有限公司

Type	Public
Industry	Semiconductor devices
Founded	1983
Headquarters	Hsinchu, Taiwan
Key people	Keith Wu, Chairperson Gordon Gau, President Patty Li, Vice President Chang Chi, Exec Vice President Armstrong Tsai, Spokesperson
Products	Microcontrollers, Memory Computer peripheral Remote Control, Telecom Power Management, Display Driver
Revenue	4,157 Million Taiwan Dollars for 2016
Number of employees	700 +

Holtek Semiconductor (Chinese: 盛群半導體股份有限公司) is a Taiwan-based semiconductor design centre and provider with its headquarters and design operations based in the Hsinchu Science Park in Taiwan, and has global sales offices located in USA and India. Holtek's design focus is in both 32-bit and 8-bit along with Touch microcontroller development with the company having around 750 employees.[when?] Holtek also designs and provides peripheral semiconductor products such as remote control, telecommunication, power management, computer peripheral, and memory devices. Holtek's device application area is concentrated in the

consumer product field such as household appliances, computer peripheral products, remote controllers, leisure products, medical equipment as well as industrial controllers. Holtek microcontrollers are in home appliances including brands such as Philips, Siemens, Märklin and Japanese brands such as Futaba and Sony, Indian major customers such as Glenmark, L&T India and TVs electronics.

History

Holtek Semiconductor was established as a design house in Taipei in 1983. From the design of remote control, telecom and voice/music devices, the company moved into microcontroller design. In 1988 the company moved to the Hsinchu Science Park under the name of Holtek Microelectronics and began also its combined manufacturing and design operations. In 1998 Holtek Semiconductor Inc. became a pure design house with its device manufacturing contracted out. The decision to move out of manufacturing and focus on only design reflected many similar companies.

Products

Holtek HT48R06A-1

Holtek's design focus is in the area of microcontroller development. Holtek's 32-bit series is based on ARM Cortex-M0+ and Cortex-M3 cores. They are also producing 8051 based controllers, but the majority of their 8-bit microcontrollers are based on a core designed in-house that is very similar to the Microchip PIC16 architecture. All have common features such as timers, external interrupts, power-down functions, low-voltage reset, bi-directional I/O pins etc. The range of microcontrollers support clock speeds from 32 kHz up to 20 MHz. Device specific features include functions such as EEPROM memory, A/D converters, LCD interfaces, USB interfaces, operational amplifiers. Some of Holtek's 8-bit and 32-bit microcontroller devices:

- HT32F51XX ARM M3 core based 32-bit series
- HT85F22XX 8051 core based 8-bit series
- HT46RXX A/D type series
- HT46FXX Flash A/D type series
- HT48RXX I/O type series
- HT48FXX Flash I/O type series
- HT49XX LCD type series

- HT56RXX Tiny Power A/D type series
- HT66FXX Flash A/D type series
- HT68FXX Flash I/O type series
- HT82XX Computer Peripheral series
- HT95XX Telecom Peripheral series
- BS8XXX Touch IC series

Holtek develops other devices, most of which could be classified as microcontroller peripheral devices. One area is that of Low Dropout Regulators where Holtek has provided a range of products with low supply currents. Holtek supports traditional products such as remote control and telecommunication devices. Some peripheral products include:

- HT7XX Power Management Devices
- HT93X/24X Memory Products
- [HT12X Remote Control Devices](#)
- HT16XX Display Drivers
- HT9XX Telecom Peripherals

Holtek Semiconductor devices are used in home appliances, computer peripheral equipment, home medical equipment market. The company also provides a design service for customers with specific microcontroller needs. These special microcontroller devices may integrate functions such as smart card interface or medical analog circuitry within the microcontroller.

Development tools

Hardware Emulator with Integrated Programmer

Holtek also supplies its IDE-3000 development system to support its microcontroller devices. This is a suite of hardware and software development tools which includes real time hardware emulation and software simulation as well as tools for device programming of OTP and flash type devices. Some of Holtek's ICE In-Circuit Emulators also include an integrated device programmer eliminating the need for separate programming tools. The separate programming tools can be operated in a stand-alone mode without a PC connection.