



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



A full Design Manual is available to qualified customers. To register, please send an email to VoiceProcessing@Zarlink.com.

Features

- 100 MHz (200 MIPs) Zarlink voice processor with Butterfly hardware accelerator and breakpoint/interrupt controller
- On-board Data (26 Kbytes), Instruction (24 Kbytes) RAM and Boot (3 Kbytes) ROM
- 2048 tap Filter co-processor shared across up to 16 separate functions in 128 tap increments
- Primary PCM port supports TDM (ST BUS, GCI or McBSP framing) or SSI modes at bit rates of 128, 256, 512, 1024, 2048, 4096, 8192 or 16384 Kb/sec
- Separate slave (microcontroller) and master (Flash) SPI ports, maximum clock rate = 25 MHz
- Watchdog and 2 auxiliary timers
- 11 General Purpose Input/Output (GPIO) pins
- General purpose UART port
- Bootloadable for future Zarlink software upgrades
- External oscillator or crystal/ceramic resonator

Ordering Information

ZL38015QCG1 100 Pin LQFP Trays, Bake & Drypack

*Pb Free Matte Tin

-40°C to +85°C

- 1.2 V Core; 3.3 V IO with 5 V-tolerant inputs
- IEEE-1149.1 compatible JTAG port

Applications

- Wireless Local Loop base stations and controllers
- Voice telephony gateways
- Digital, VoIP based and wireless PBX systems
- Echo Canceller pools
- Customer Premise equipment
- Integrated access devices
- SOHO gateways

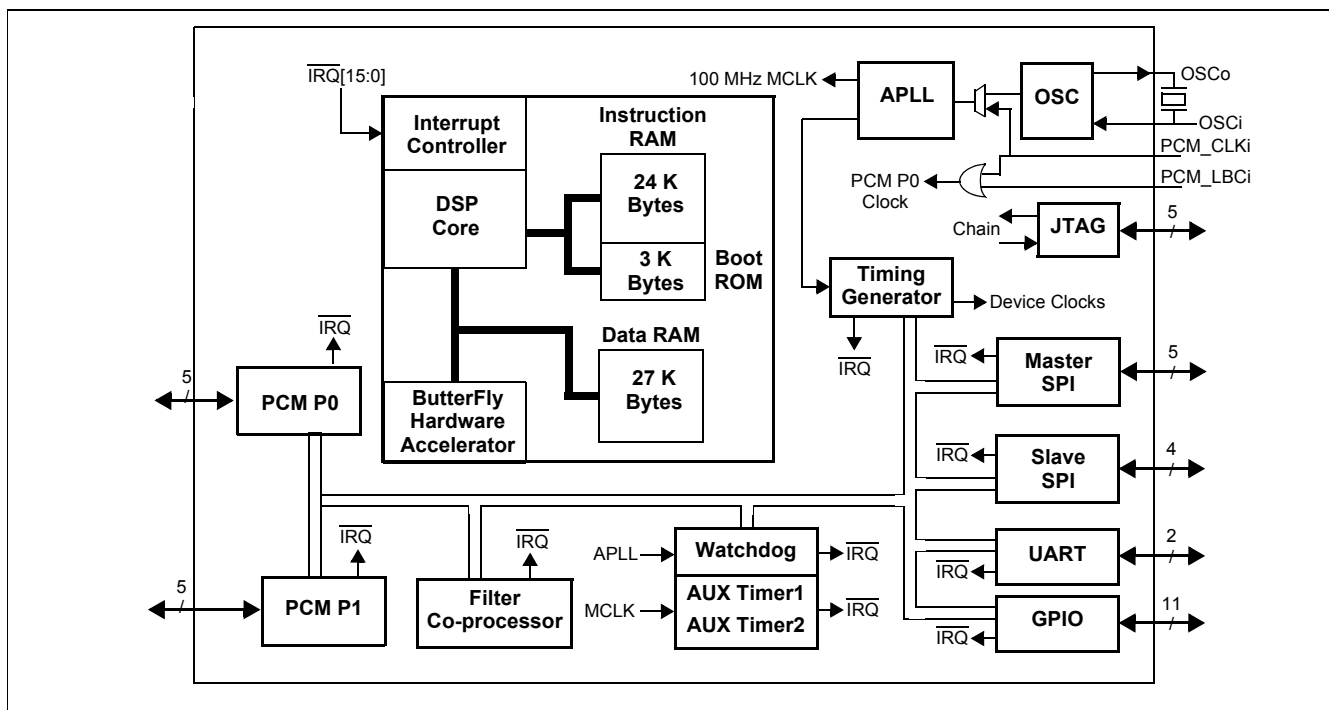


Figure 1 - Functional Block Diagram

Description

The ZL38015 is a four channel Voice-Processor hardware platform designed to support advanced voice and digital signal processing applications available from Zarlink Semiconductor. The ZL38015 platform integrates Zarlink's Voice Processor (ZVP) DSP Core with a number of internal peripherals including: 2 PCM ports, a 2048 tap Filter Co-processor, 2 Auxiliary Timers and a Watchdog Timer, 9 GPIO pins, UART, Slave SPI and Master SPI ports and a master/slave timing block.

The firmware products and manuals available at the release of this data sheet is the ZLS38233: 4 Channel Voice Echo Canceller (VEC) with integrated DTMF Transceiver (Tx/Rx). If these applications do not meet your requirements, please contact your local Zarlink Sales Office for the latest firmware releases.

1.0 Functional Description

The ZL38015 is a hardware platform designed to support advanced voice processing applications available from Zarlink Semiconductor. These applications are resident in external memory and are down-loaded by the ZL38015 resident boot code during initialization.

The firmware products and manuals available at the release of this data sheet is the ZLS38233: 4 Channel Voice Echo Canceller with DTMF Transceiver.

The ZL38015 platform integrates Zarlink's Voice Processor (ZVP) DSP Core with a number of internal peripherals. These peripherals include the following:

- Two PCM ports - ST BUS, GCI, McBSP or SSI operation
- A 2048 tap Filter Co-processor (LMS, FIR and FAP realizations)
- Two Auxiliary Timers and a Watchdog Timer
- 11 GPIO pins
- A UART interface
- A Slave SPI port and a Master SPI port
- A timing block that supports master and slave operation
- An IEEE - 1149.1 compatible JTAG port

The DSP Core can process up to four 8-bit voice channels, two 16-bit voice channels or two 8-bit and one 16-bit voice channel.