

# VZ.Voice™

## Integrated VoIP Software for Systems and SoC

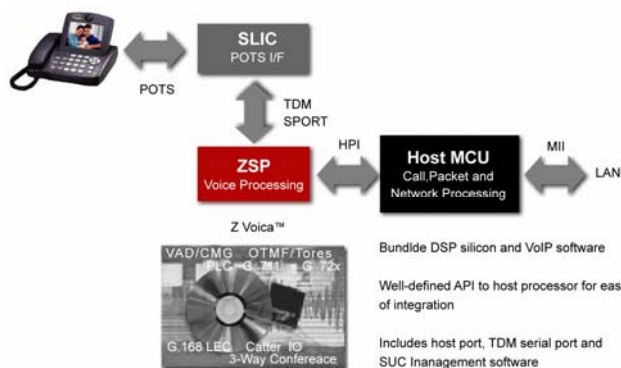


### OVERVIEW

Voice-over-IP (VoIP) is the emerging application for the broadband infrastructure industry, fueled by DSL, cable and Wi-Fi deployments. VoIP's ability to provide reduced costs for long distance voice communication, integrated web applications for customer service and the ability to enable voice channels at a low price point in emerging countries is leading to explosive growth in VoIP subscriptions. This type of phenomenal growth can only be managed with a strong infrastructure of both VoIP hardware and software.

To meet this market demand, VeriSilicon has developed a full suite of VoIP products called VZ.Voice. VZ.Voice provides cost-effective and time-efficient options for customers to voice-enable a host of broadband and wireless devices such as DSL and cable modems, wireless routers, Voice-over-WiFi in cell phones and cordless phones, as well as set-top boxes.

VZ.Voice includes a variety of standard voice processors, off the-shelf industry compliant vocoders, bundled device/software packages, reference designs and the scalable, binary compatible family of licensable ZSP® processor cores.



### APPLICATIONS

- Wireless routers
- DSL modems
- Cable modems
- Home gateway
- Voice-over-Wi-Fi
- Set-top box
- Wi-Fi cordless phones

### FEATURES

- Suite of voice processors
- Family of code compatible DSP cores
- Extensive offering of software and algorithms
- Reference designs
- Turnkey bundles of silicon and software

### BENEFITS

- Time-efficient with shrink-wrapped software + silicon
- Lowest energy use in its class
- Scalable for more voice ports with ZSP cores
- Tested and certified

### VZ.VOICE SOFTWARE

- G.711, G.723.1, G.726, G.729AB, G.722, G.722.1, G.722.2
- Voice Codecs, T.38 FAX and FXO Support
- G.168-2000 Line Echo Cancellation
- Voice Activity Detection (VAD)
- Comfort Noise Generation (CNG)
- DTMF Tone Generation / Detection
- Call Progress Tone Generation
- Caller ID Generation (Type I/II)
- 3-Way Conferencing
- SLIC Management Software
- RTP/Adaptive Jitter Buffer
- Acoustic Echo Canceller (AEC)
- Noise Reduction
- Session Initiated Protocol (SIP)

### VZ.Voice Silicon

The ZSP processor technology is available in a variety of physical formats. The open architecture design enables customers to quickly design optimized solutions for target markets today with a reference silicon and migrate to an SoC in the future for further cost reduction and integration.

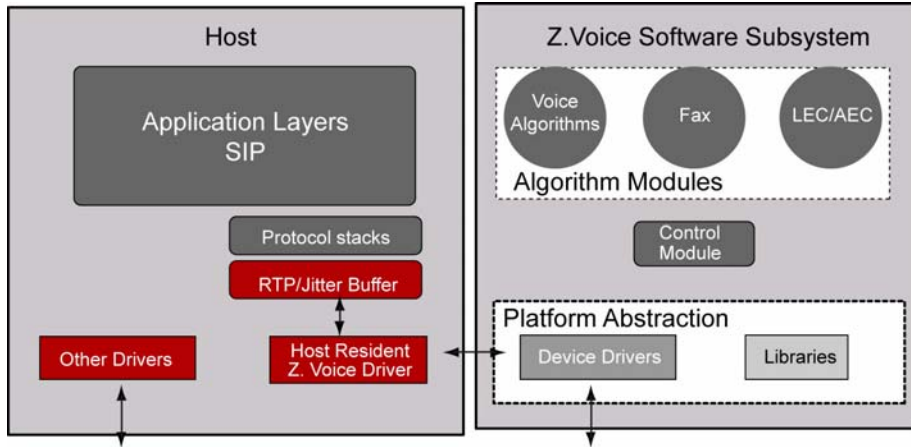
### VZ.Voice Integration

VeriSilicon offers a complete range of leading VoIP development tools, kits and reference designs to minimize design challenges and maximize ODMs' return on investment.



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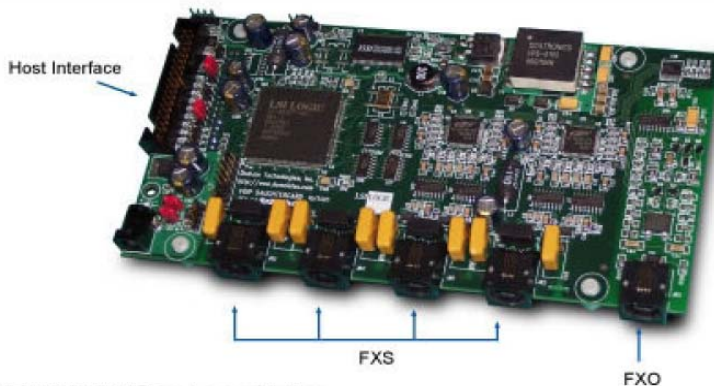
## Integrated VoIP Software for Systems and SoC



VoIP Gateway Software Architecture

SLIC interface

VZ.Voice API	Partition / Applications
TDM API	TCP,SIP, RTP/Jitter Buffer on Host Voice Codecs, Telephony Components, Echo Cancellers on DSP CPE and Business Gateways
RTP API	TCP,SIP on Host RTP/Jitter Buffer, Voice Codecs, Telephony Components, Echo Cancellers on DSP Single Channel VoIP – VoWiFi, IP Phone
TCP API	TCP, SIP, RTP, Jitter Buffer, Voice Codecs, Telephony Components, Echo Cancellers all on DSP IP Phones, ATAs



4FXS/1FXO VoIP Development Platform

### About VeriSilicon

VeriSilicon Holdings Co., Ltd ("VeriSilicon") is a fast growing silicon solutions company providing products and services that enable customers to meet their chip design objectives, accelerate development programs and deliver market proven silicon products - on time and at lower cost. VeriSilicon specializes in providing expert design services, market leading ZSP® licensable cores and platforms, industry standard semiconductor IP and scalable ASIC turnkey services across a broad range of application markets, including multimedia, voice and wireless communications. VeriSilicon has design, operation and sales and support offices in Santa Clara, California, Dallas, Texas, Shanghai and Beijing, China, Taipei, Taiwan, Tokyo, Japan, Nice, France and Seoul, Korea. For more information, visit [www.verisilicon.com](http://www.verisilicon.com).

For more information please contact:

#### • US

VeriSilicon, Inc.  
4699 Old Ironsides Dr., Suite 350  
Santa Clara, CA 95054  
Tel: +1 408 844 8560  
Fax: +1 408 844 8563  
E-mail: [us-sales@verisilicon.com](mailto:us-sales@verisilicon.com)

#### VeriSilicon, Inc.

500North Central Expressway  
Suite 430 Plano, Texas 75074  
Tel: +1 972 244 5100  
Fax: +1 972 244 5101  
E-mail: [us-sales@verisilicon.com](mailto:us-sales@verisilicon.com)

#### • China

VeriSilicon Microelectronics (Shanghai) Co., Ltd.  
Building 1, No.200, Zhangheng Rd  
Pudong New Area, Shanghai 201204  
Tel: +86 21 51311118  
Fax: +86 21 51311119

#### VeriSilicon Microelectronics (Beijing) Co., Ltd.

Rm A106, Information Center,  
Zhongguancun Software Park  
8 Dongbeiwang West Road,  
Haidian District, Beijing 100193, P.R.C  
Tel: +86 10 8282 5201  
Fax: +86 10 8282 5201

E-mail: [china-sales@verisilicon.com](mailto:china-sales@verisilicon.com)

#### • Taiwan

VeriSilicon Taiwan, Inc.  
5F, No. 306, Sec.1., Neihsu Road  
Taipei 114, Wall Street Building, Taiwan.  
Tel: +886 2 2656 2606  
Fax: +886 2 2656 2604  
E-mail: [taiwan-sales@verisilicon.com](mailto:taiwan-sales@verisilicon.com)

#### • Japan

VeriSilicon K.K.  
The Imperial Tower, 8th floor  
1-1-1Uchisaiwaicho Chiyoda-ku  
Tokyo, 100-0011 Japan  
Tel: +81 3 3507 3005  
Fax: +81 3 3507 3006  
E-mail: [japan-sales@verisilicon.com](mailto:japan-sales@verisilicon.com)

#### • Europe

VeriSilicon, SARL  
Les Algorithmes, Bat. Aristote A 2000 Route  
des lucioles 06901 Sophia Antipolis, France  
Tel: +33 4 9294 4892  
Fax: +33 4 9294 4882  
E-mail: [europe-sales@verisilicon.com](mailto:europe-sales@verisilicon.com)

#### • Korea

VeriSilicon, Korea.  
B-1201, The O superium 1, 3001-2,  
Bangbae 4-dong, Seocho-gu Seoul, 137-064, Korea  
Tel: +82 2 6409 4506  
Fax: +82 2 6409 4501  
E-mail: [korea-sales@verisilicon.com](mailto:korea-sales@verisilicon.com)

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