Power Matters.™

Solutions for the Connected Home

Voice Line Circuits

Audio Processors

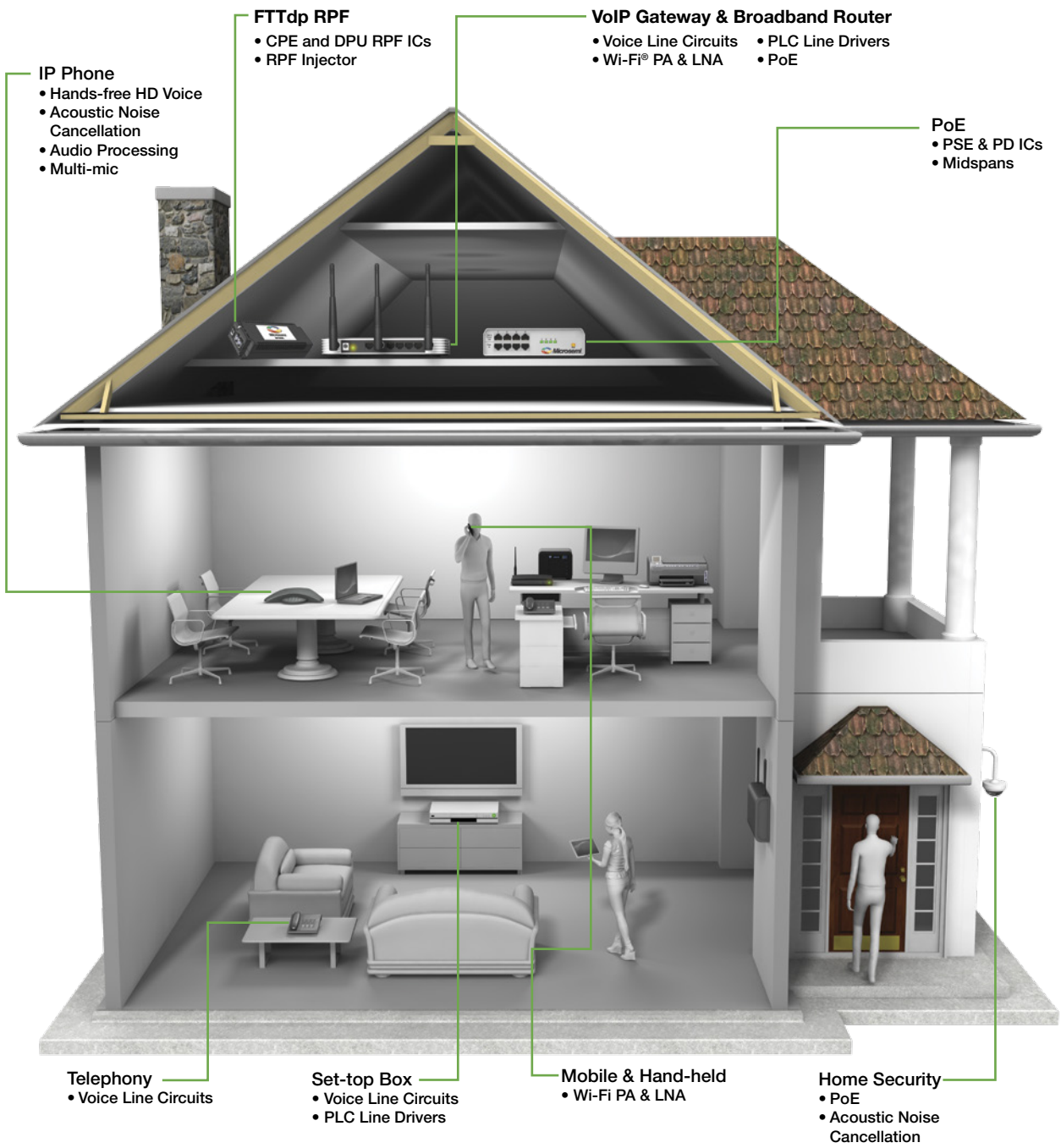
PoE and RPF

WLAN RF ICs

Line Drivers

Microsemi

Enabling the Connected Home



Microsemi is a leading provider of semiconductor system solutions for the broadband home, delivering the right connectivity solutions for voice, data and power.

Voice Line Circuits

miSLIC™ Series

The miSLIC™ Series provides the most economical solution for adding two channels of voice to broadband applications, such as residential gateways, DSL integrated access devices (IAD), cable embedded multimedia terminal adapters (eMTAs) and fiber to the premise (FTTX) applications. The miSLIC Series supports ringing and system power management, enabling energy efficient control of two telephone lines and meeting the European Code of Conduct specifications. The miSLIC device together with the new patent pending shared buck boost automatic battery switching (BBABS) power supply design are Microsemi's most economical RBOM for two channels of voice.

ZL880 Series

The ZL880 Series features low power, dual-channel wideband foreign exchange service (FXS) voice solutions for broadband residential gateways, cable embedded multimedia terminal adapters (eMTAs) and fiber to the premise (FTTX) applications.

VE890 Series

The VE890 Series targets low-cost residential gateways, especially DSL IADs and some ATAs that often require a single FXS line and/or an FXO interface. The VE890 Series of chipsets enable all popular voice interface options in DSL IADs including 1 FXS, 1 FXO, 2 FXS, 2 FXO, 1 FXS + 1 FXO and 2 FXS + 1 FXO. The VE890 Series offers full worldwide programmability, requires very few external components and meets the European Code of Conduct power requirements.

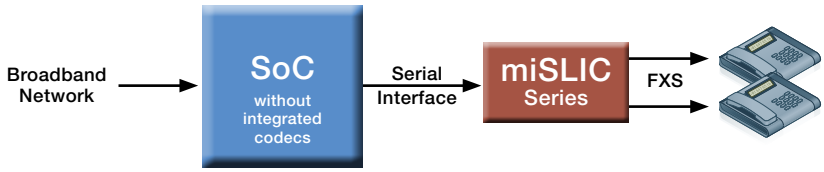
VE950 Series

The VE950 Series offers high-performance, voice-over-broadband SLIC devices with universal differential ringing and codec interfaces optimized for short loop, power-sensitive applications. The VE950 products are designed to interface to residential gateway SoCs with integrated analog codecs.

Voice Solutions for Broadband Gateways

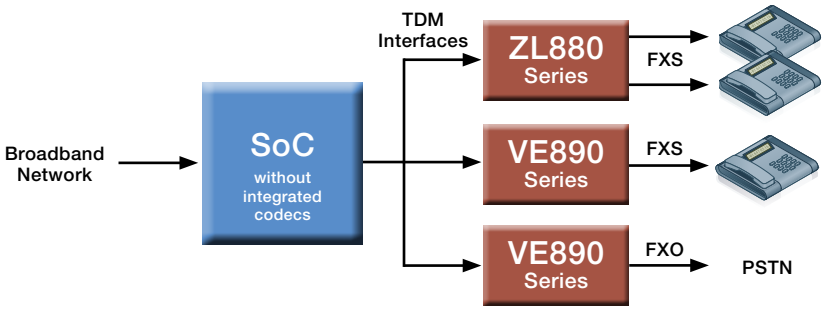
miSLIC Series

Residential Gateway
(SoC without integrated analog codecs)



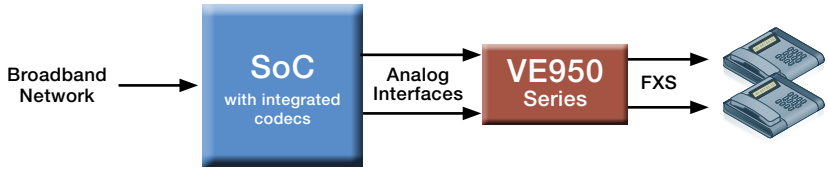
ZL880 & VE890 Series

Residential Gateway with Optional FXO
(SoC without integrated analog codecs)



VE950

Residential Gateway
(SoC with integrated analog codecs)



Audio Processors

Designed for world-class high definition (HD) voice applications, Microsemi's new ZL380 series of audio processors features the company's Microsemi AcuEdge™ Technology. This innovative technology is a set of highly-complex and integrated algorithms that allows the user to extract more information from the audio environment. The new Microsemi AcuEdge Technology consists of license-free, royalty-free intelligent audio IP algorithms. When combined with Microsemi's highly-integrated ZL380 series of audio processors, the solution accelerates customers' time-to-market via validated reference design and easy-to-use development tools including the Microsemi Audio Interface Box (AIB) Kit which utilizes the MiTuner™ GUI software.

The connected home is about enabling users to talk to each other through connected devices. Connected devices could include integrated smart home gateway, intercom, Media Center, IP Camera, Skype. Microsemi AcuEdge Technology enable the full duplex operation between the connected devices to deliver on seamless high definition (HD) voice communication. In complex noise environments such as gaming rooms and building lobbies, Microsemi's AcuEdge Technology cancels echo, maintains a constant ambient noise (comfort noise) and continuously converges during double-talk situations.

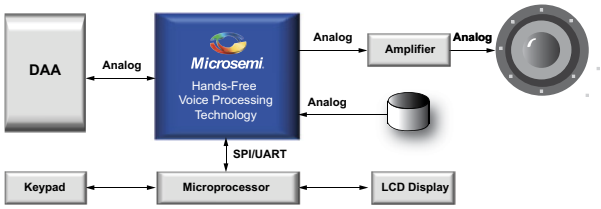


Figure 1: Home Automation Application

Power over Ethernet (PoE)

Microsemi has been pioneering in the Power over Ethernet field since 1999, with the invention of Power over LAN™. Microsemi has the broadest Power over Ethernet product line covering PoE IC's that send power (PSE), receive power (PD), and complete systems that inject Power over Ethernet in an intelligent way (Midspans). Microsemi's products support IEEE802.3af-2003, IEEE802.3at-2009 in both 30W and 60W versions, Energy Efficient Power over Ethernet and the 95W Power over HDBaseT™ (PoH) standard. Microsemi's PoE PSE product line includes IC's and Modules that can be used to build PoE switches and routers (Endspans) from 1 to 96 ports in a single power management system. Our PoE PD IC's provide the most energy efficient and cost effective solutions to build PD's consuming up to 95W over a single Category 5/5E/6/6A/7 cable.

PD applications achieve Best-in-class power and thermal performance using Microsemi's fully integrated smallest footprint dual pack Idea Diode Bridge IC's. Microsemi's Midspans can be used in indoor and outdoor deployments, with advanced network management and Energy Efficient PoE models available.

Figure 2: Industry Leading Power over Ethernet (PoE) Solutions

Reverse Power Feed (RPF)

Reverse Power Feed (RPF) technology allows service providers to deploy xDSL DSLAMs virtually anywhere, without the need to deploy local power. Microsemi is the only supplier of RPF Systems and IC's for the Customer Premises Equipment (CPE) and the Distribution Point Unit (DPU). Microsemi's RPF solution allows low cost, safe and reliable power Injection and extraction over xDSL including VDSL2, G.hn and G.FAST and is compatible with DSL bonding and vectoring. Our RPF applications cover 1-line DPU's reverse power fed by 1 CPE as well as multi-line DPU's featuring Microsemi's FairPower™ for equal power sharing of all RPF CPE's.

Wireless LAN RF ICs

Microsemi's WLAN (Wi-Fi) RF IC's portfolio for Broadband Gateways include Front-End Modules (FEMs), Power Amplifiers (PAs) and Linear Amplifiers (LNAs) required to implement an RF front-end. Combinations include one or more power amplifiers with both input/output impedance matching, a switch and one or more low noise amplifiers. Microsemi's WLAN RF IC's can be found at multiple IEEE802.11a/b/g/n/ac reference designs by the leading WLAN baseband SoC suppliers.

Line Drivers

Microsemi has been a supplier of Line Drivers for xDSL technologies since 2001. Starting with ADSL, Microsemi now supports every xDSL standard and G.FAST, inlcuding ADSL2+, VDSL2 standards, with extremly energy efficient and long range capable products. Microsemi's new Power Line Communications Line drivers support the G.hn and HomePlug AV2 standards, with bandwidths of up to 110Mhz, for Classes AB and GH.

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