

# Fusiv®

## Vx150-IKF6833-1

### Gateway Processor for Broadband Gateway Systems



#### Target Markets

- xDSL Residential Gateway CPE
- ATA (Analog Telephone Adapter)

#### Target Applications

- Residential Gateway
- ATA (Analog Telephone Adapter)
- IAD
- IP-PBX
- VoIP Gateway

#### Fusiv Vx150 - IKF6833-1

- Built-in Voice Engine
- USB 2.0 Full Speed Device
- Wire-speed Routing Performance
- Up to 4 Low Bit Rate Voice Channels
- PCI, 3x Ethernet and Utopia (ATM)
- Flashless boot through SPI EEPROM
- Two dedicated DSP SPORT interfaces
- One CPE SPORT Interface for Universal Connectivity

#### Software and Reference Platforms

- FusivWare™ advanced Linux-based operating software
- Full-Chain Voice Processing
- VoIP Signaling
- Network Management
- IP Middleware
- Routing/Switching
- ATM

Ikanos' Fusiv® Vx150, IKF6833-1 processor provides an unparalleled integration of full chain voice processing, signaling and network protocol processing on a single chip, targeted at a broad range of residential gateway and SME gateway products.

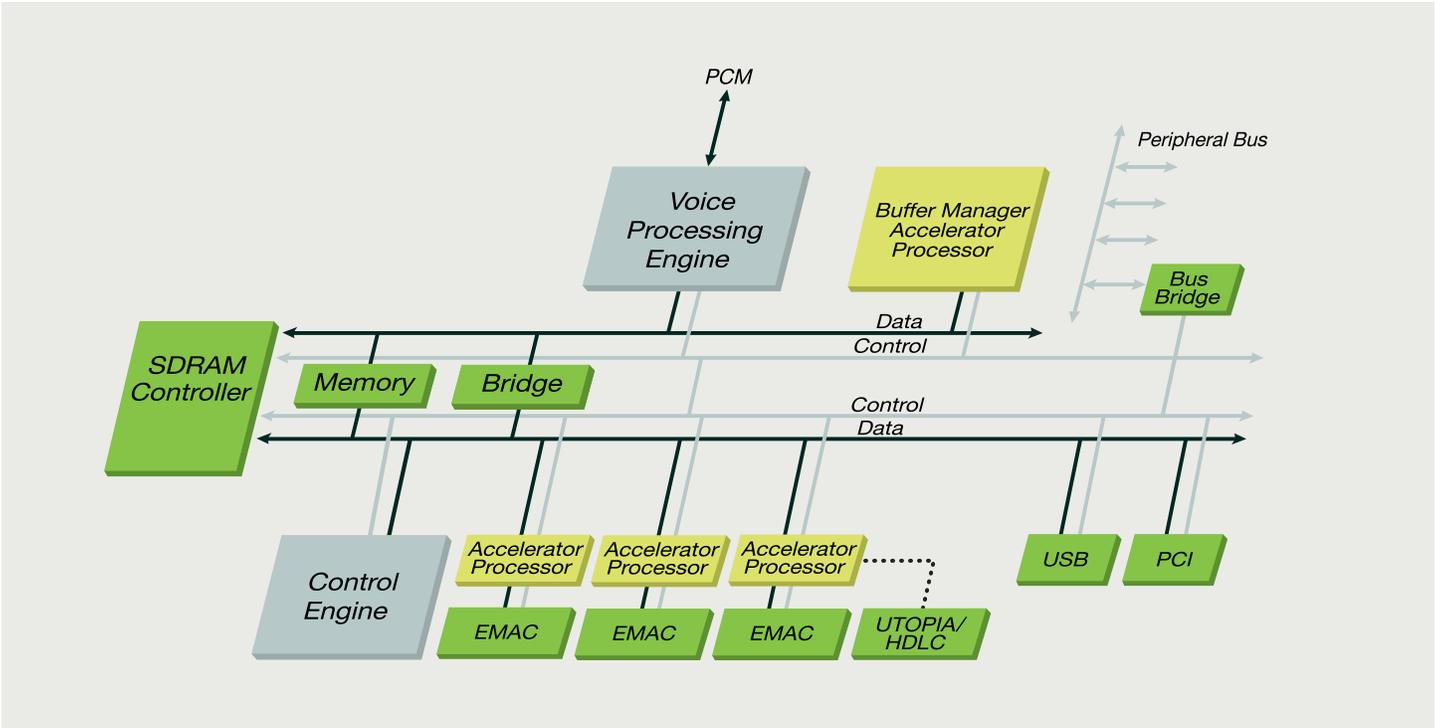
The Fusiv Vx150 has an on chip DSP/voice engine for handling up to 4 channels of full-chain voice and can be interfaced with Ikanos' ADSL2/2+ chipset to support triple play ADSL gateways with video, voice and data pass-through capability.

The Fusiv Vx150 incorporates Accelerated Processor (AP) engines to achieve scalable wire speed performance. AP engines offload much of the packet processing and forwarding functionality from the CPU. AP engines provide hardware like performance with software like flexibility. Since most of the data path functions are handled by the AP engines, the system

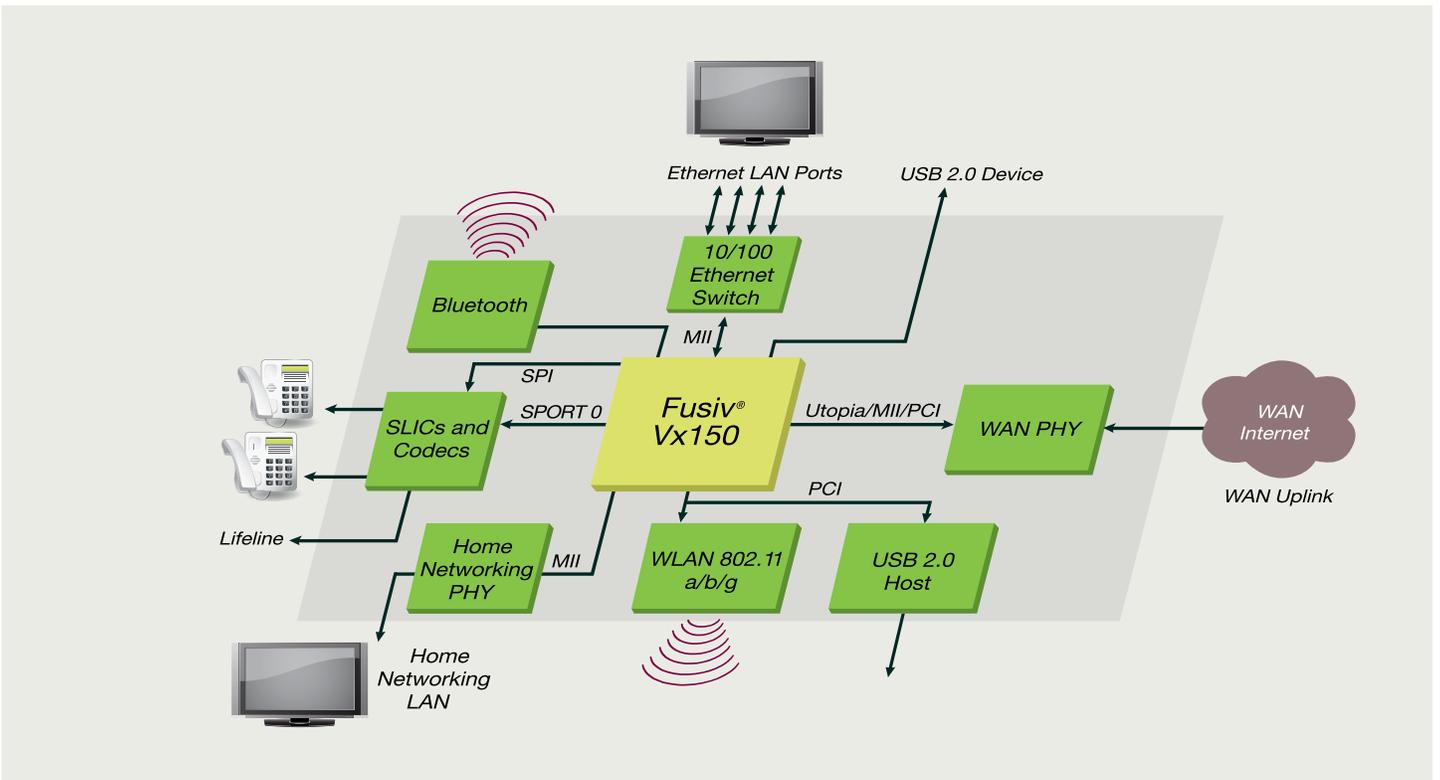
vendor has more of the main CPU processing power available for system applications. The Fusiv Vx150 has multiple AP engines on-board to assist with Ethernet and ATM processing.

The Fusiv Vx150 optionally offers multi-PHY UTOPIA L1/L2 interface instead of the 3rd 10/100 Ethernet interface for ATM based applications. ATM processing scalability is achieved with Accelerator Processor engines. The Fusiv Vx150 can scale-up to handle high bandwidth broadband ATM applications such as ADSL, passive optical network (PON) and VDSL applications.

## Fusiv® Vx150 System Architecture



## Residential Gateway Reference Platform



## Key Features

- Highly integrated processor
  - Reduces BOM costs to build residential gateways, VoIP gateways and integrated access devices
  - 200 MHz 32-bit RISC host processor
- Dedicated voice processing engine
  - No external DSP engine required to process voice chain
  - Lowers BoM cost
- Interface to external DSP
  - Expands to support high channel density
  - Supports the development of SME gateways with high channel density
- Wire speed packet processing
  - Supports high bandwidth intensive applications
  - Reliable video, voice and data processing services are possible
- Accelerator Processing Engines – 5 x 200 MHz
  - Wire speed Ethernet and ATM processing
  - AP engines handle data path tasks leaving the CPU to handle system tasks, resulting in a scalable system
- ATM processing
  - Scalability to handle high bandwidth broadband ATM applications such as Sonet, passive optical network (PON) and VDSL applications

© 2008 Ikanos Communications, Inc. All Rights Reserved. Ikanos Communications, Ikanos, the Ikanos logo, the "Bandwidth without boundaries" tagline, Fusiv, Fx, and FxS are among the trademarks or registered trademarks of Ikanos Communications. All other trademarks mentioned herein are properties of their respective holders. This information is protected by copyright and distributed under licenses restricting, without limitation, its use, reproduction, copying, distribution, and de-compilation. No part of this information may be reproduced in any form by any means electronic, mechanical, magnetic, optical, manual, or otherwise, without prior written authorization of an authorized officer of Ikanos Communications, Inc (Ikanos).

### Disclaimer

This information is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Ikanos. Ikanos assumes no responsibility or liability for any errors or inaccuracies that may appear in this material. Ikanos makes no representations or warranties with respect to the design and documentation herein described and especially disclaims any implied warranties of merchantability or fitness for any particular purpose. References in this document to an industry or technology standard should not be interpreted as a warranty that the product or feature described complies with all aspects of that standard. In addition, standards compliance and the availability of certain features will vary according to software release version. For further information regarding the standards compliance of a particular software release, and the features included in that release, refer to the release notes for that product.

Ikanos reserves the right to revise the design and associated documentation and to make changes from time to time in the content of this document without obligation of Ikanos to notify any person of such revisions or changes. Use of this document does not convey or imply any license under patent or other rights. Ikanos does not authorize the use of its products in life-support systems where a malfunction or failure may result in injury to the user. A manufacturer that uses Ikanos products in life-support applications assumes all the risks of doing so and indemnifies Ikanos against all charges.

For more information, contact Ikanos.

Ikanos Communications, Inc.  
47669 Fremont Boulevard  
Fremont, California 94538

[www.ikanos.com](http://www.ikanos.com)

P +1 510.979.0400

F +1 510.979.0500

E [sales@ikanos.com](mailto:sales@ikanos.com)

