**SINGLE-CHIP 2-CHANNEL VOIP CABLE MODEM REFERENCE DESIGN**

**BCM93352VCM FEATURES**

- A fully functional and low cost 2-Channel VoIP Cable Modem reference design. The reference design includes all of the materials required to quickly develop a very cost effective solution that provides 2-Channels of VoIP and Home Networking over phone lines.
- Broadcom’s CablexChange™ software suite includes G.711, G.726, G.729/a/b/e, G.728 and T.38 FoIP algorithms as well as NCS v2/MGCP call client signaling software.
- The iLine20™ HPNA 2.0 solution provides two channels of HPNA 2.0 with up to 32 Mbps over existing telephone wiring.
- Propane™ software enhances the upstream performance of DOCSIS/EuroDOCSIS 1.1 over non-Propane enabled solutions.
- Integrated USB 1.1, 10/100 Ethernet, and 2-Channel iLine20 HomePNA Interfaces.
- Telephone Line Diagnostics.
- Low cost design.
- Expansion Bus Interface(EBI) Connector to support Wireless and PowerLine networking add ons.

**SUMMARY OF BENEFITS**

- Integrated two-line HPNA 2.0 interface enables Voice-over-HPNA (VoHPNA), 32 Mbps in-home networking, and other multimedia services over existing twisted pair telephone wiring.
- VoHPNA 2.0 phone adapter ready so you can add additional telephone outlets without new wires.
- Tested with Clarent, Netspeak, and Telcordia call agents. Also supports direct GR303 Gateway operation.
- Available with Net2Phone Call Client enabling low cost IP Telephony.
- OS Flexible HAL-based DOCSIS/EuroDOCSIS 1.1 source code.
- Reference design comes complete with:
  - Schematics and Gerber files.
  - Complete bill of materials (BOM).
  - Comprehensive data sheets.
  - DOCSIS/EuroDOCSIS 1.0/1.1 software source code.
  - Training.
  - Applications support.
  - CableLabs/PacketCable support.

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**Two-Channel VoIP/HomeNetworking Cable Modem Reference Design**

![Diagram](image-url)
The Broadcom BCM93352VCM represents a new level of integration for VoIP Cable Modems. With the BCM93352VCM, your company can quickly develop a winning solution providing two channels of VoIP primary line telephony and broadband data services via iLine20 HPNA 2.0 or 10/100 Ethernet interfaces.

Broadcom’s reference designs are shipped as a tested and fully operating Broadband Gateway. Included with each reference design is a comprehensive set of design documentation and DOCSIS/EuroDOCSIS 1.0/1.1 source code to save months, and thousands of dollars, in R&D expenses.

Broadcom also provides extensive design assistance for both hardware and software. We also provide a strong support staff that offers training in all aspects of the reference design, further accelerating your development schedules.

In addition to DOCSIS/EuroDOCSIS software, Broadcom tightly integrates Broadcom Canada’s CablexChange™ software, which is an OpenVoIP™ implementation delivering the PacketCable requirements for high-quality compressed VoIP services. CablexChange™ is licensed separately and includes the DSP firmware, and MPU NCS/MGCP source code for integration with your application level software.

Broadcom’s Propane™ bandwidth and performance-enhancing software is also supported with the BCM93352VCM. Sold under a separate license, Propane can provide additional value by enhancing the upstream bandwidth utilization over non-Propane enhanced gateways, thereby saving MSOs thousands of dollars in delayed node splits.

**Ordering Information:**

BCM93352VCM

Two-Channel VoIP Reference Design

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