The 4 channel VINETIC evaluation package EASY 334 demonstrates Infineon's new VINETIC devices featuring packetized voice and TDM transmission.

The EASY 334 evaluation package is a versatile tool for evaluating, testing and demonstrating all voice processing and analog linecard features of the four channel VINETIC devices, VINETIC-4VIP (PEB 3324), VINETIC-4M (PEB 3314), VINETIC-4C (PEB 3394) and VINETIC-4S (PEB 3304).

A user-friendly software is provided for calculating of country specific coefficient sets and for controlling the evaluation board by a PC via Ethernet link.

The EASY 334 evaluation package consists of one VINETIC evaluation board, two SLIC modules and VINETIC software.



## **Functionality**

The EASY 334 evaluation package allows demonstration of TDM transmission for VINETIC-4VIP/M/C/S. Both VINETIC-4VIP and VINETIC-4M permit packetized voice transmission using G.726 (ADPCM), jitter buffer operation and line echo cancellation G.165/G.168.

Additionally voice processing features like voice compression G.723.1, G.728 and G.729 are integrated in VINETIC-4VIP.

Together with SLIC devices the VINETIC chip set offers BORSCHT functionality such as battery feeding, ringing, signaling, coding, hybrid and testing.

Worldwide AC and DC requirements are met and exceeded by software programming without any change in hardware.

## **Hardware Features**

- Evaluation board EASY 334 with a P-LQFP-176 socket and L-BGA-176 footprint for VINETIC-4VIP/M/C/S
- 2 SLIC modules for SLIC-S/E/P included in the EASY 334 package, mounted with SLIC-E
- 10BaseT Ethernet PHY
- μController add-on module (Motorola MPC 86x, 8 MB FLASH, 16 MB SDRAM)
- Parallel µC-bus modes: 8/16 bit Motorola and 8/16 bit Intel demux mode
- Serial μC mode SCI/SPI
- Connector for external μController access
- Support of PCM/µC interface mode
- Configurable for PCM clock master or clock slave
- JTAG interface for boundary scan

## **Software Features**

- Comfortable graphical user interface for Windows® 98SE / Me / NT4 / 2000
- Board configuration and data access via Ethernet link
- Demonstration of:
  - Voice transmission
  - DC feeding characteristics
  - Advanced Integrated Test and Diagnosis Functions (AITDF), including GR-909
  - Voice compression quality and features like silence compr.
  - Ringing (balanced/unbalanced)
  - TTX metering
  - Automatic modes
  - Jitter buffer operation
  - Line echo cancellation
  - DTMF decoder/generator
  - Caller ID sending
  - Multi-party conferencing
  - Interrupt behavior

# EASY 334

4 Channel VINETIC Evaluation Package

http://www.infineon.com/vinetic



## **Hardware Description**

The EASY 334 evaluation package allows to configure, operate and test all modes of the VINETIC-4VIP/M/C/S. It is designed to evaluate the VINETIC chip in different parallel μController modes such as 8/16 bit Intel demux, 8/16 bit Motorola and serial interface mode SCI/SPI. Further interface modes such as 8/16 bit Intel mux mode can be accessed via an external interface connector.

The on-board µController (MPC 86x) handles the programming of the VINETIC as well as the packetized voice data flow via Ethernet. The evaluation board can be either configured to use the on-board clock generation or external clock sources. This makes it easy to connect the EASY 334 evaluation board to customer applications in order to check system behavior. Supply current measurements can be done by means of provided jumpers. Sockets are mounted for testing and comparing the VINETIC-4VIP/M/C/S devices in conjunction with different types of SLIC on the SLIC modules. Various test pins and LEDs are provided on board to evaluate all relevant signals in a very effective way of analyzing operation and functionality.

# **Software Description**

The EASY 334 software and the coefficient calculation software VINETICOS are included on a CD-ROM. The EASY 334 software allows to configure the VINETIC chipset from a function based graphical environment or with programming on register level. At the same time

access and also tracing of registers is possible. Furthermore TAPI software messages are provided.

Performance tests of the analog part with payload data as well as real-time operation like Caller ID sending, metering and ring-trip detection can be demonstrated with the VINETIC evaluation package.

# **Package Contents**

- Evaluation board EASY 334
- 2 SLIC modules SMART 4265 (each with two single channel devices, P-DSO-20-5, SLIC-E mounted)
- VINETIC tool CD, STS 334, including EASY 334 software and coefficient calculation program VINETICOS as well as device related documentation
- Power supply cable
- 10BaseT Ethernet cable (crossover)

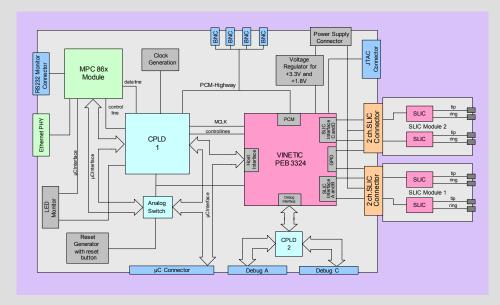
## **Purchase Information**

Evaluation package EASY 334 Q67230-H1334

 VINETIC tool CD, STS 334 (can be ordered separately) Q67230-H1353

#### **Additional Tools**

- SLIC module SMART 4365 Q67230-H1328 (dual channel, P-DSO-36-10) including TSLIC-E and TSLIC-S devices
- SLIC module SMART 4265VQFN Q67230-H1329 (two single channels, P-VQFN-48), SLIC-E soldered



# Block Diagram of the EASY 334 Board and SLIC Modules

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