
# VINETIC-4C/S

Enhanced Next Generation
Analog Telephony Solutions
PEF 3304/3394

VINETIC-4C and VINETIC-4S are Infineon's optimized Central Office (CO) solutions for centralized VoIP applications or pure TDM based access network applications.

Infineon's VINETIC family of analog voice access ICs includes two, four and eight-channel codecs that are optimized for Customer Premises Equipment (CPE) as well as CO access network applications. Featuring four levels of integrated DSP performance, the VINETIC family offers system providers a wide range of flexible solutions from pure TDM functionality, up to full blown VoIP or VoATM packet and voice processing engines.

With this comprehensive set of specially designed packet based voice transmission features, the VINETIC family provides the DSP power required for each specific application. Together with Infineon's extended family of SLIC devices, each system can be tailored with an optimum combination of devices.

The VINETIC-4C and VINETIC-4S ICs are pin-compatible with Infineon's VoIP solutions, VINETIC-M and VINETIC-VIP, that combine voice codec with feature-rich DSP capabilities.

## Applications

- Central Office (CO)
- Access Network
- DLC, DSLAMs
- WLL, FTTH
- PBX

## Voice over Packet Features

- Integrated Voice Compression supports G.726 ADPCM (16, 24, 32, 40 kbit/s) and G.711
- Line Echo Cancellation (LEC) up to a 16 ms tail, and exceeds G.165/G.168/G.168-2000/G.168-2002
- DSP power according to system port density
- Encapsulated Voice Processing takes care of all real-time-critical tasks within VINETIC
- Advanced Integrated Test and Diagnostic Functions (AITDF) support Line Testing and Quality of Service (QoS)

## Codec/SLIC Features

- Fully programmable 4-channel CODEC with voice processing DSP
- Complete VINETIC family HW and SW compatible
- Specification according to ITU-T Q.552, G.712, LSSGR
- Uses Infineon's well-known SLIC family (170V)
- AC and DC characteristic country independent programmable
- Enhanced Power Management
- Integrated DTMF Decoder
- Integrated Caller-ID Generator and Detector (FSK and DTMF)
- Internal programmable balanced ringing up to 85 $V_{RMS}$ and 50 $V_{RMS}$ unbalanced ringing
- Support of external ringing
- Metering pulse up to 2.5 $V_{RMS}$ at 200 Ω (12/16 kHz)

## Documentation and Development Tools

- Evaluation board EASY334 + VINETIC Tool CD-ROM
- Coefficient Calculation Software (VINETICOS)
- VINETIC Driver in Linux and VxWorks
- Data sheets, System and Software User's Guides, Driver Documentation and Application Notes

www.infineon.com/vinetic

COMMUNICATION

Never stop thinking

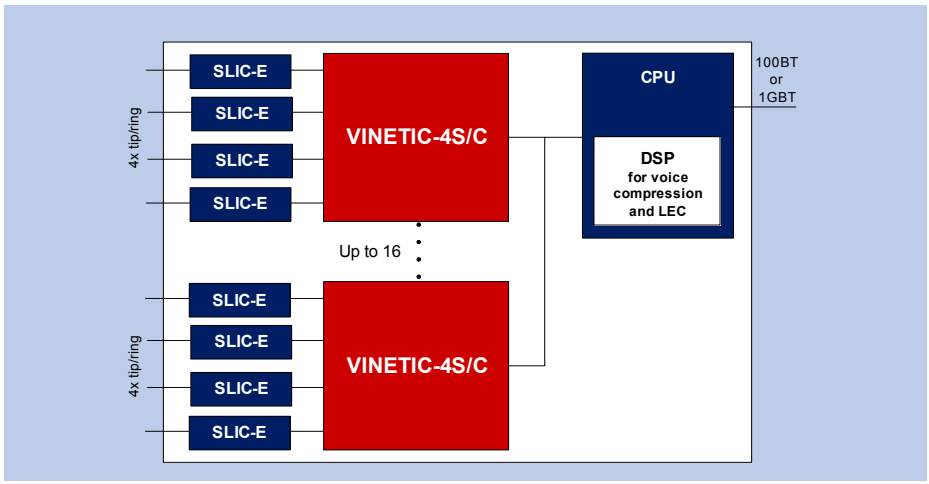
## VINETIC Family – Overview

| Chip Set[1)] | VINETIC-4S | VINETIC-4C |
|---|---|---|
| Analog Channels | 4 | 4 |
| Supported SLICs | SLIC-P (PEB 4266), SLIC-E (PEB 4265), SLIC-E2 (PEB 4265-2), SLIC-S (PEB 4264), SLIC-S2 (PEB 4264-2), TSLIC-E (PEB 4365), TSLIC-S (PEB 4364), SLIC-LCP (PEB 4262), SLIC-DC (PEF 4268) | |
| DTMF Decoder | No | Yes |
| Tone/DTMF Generator | Yes | Yes |
| Tone Detection | No | Yes |
| Line Echo Cancellation | No | Up to 16ms |
| Caller ID | No | Yes |
| Voice Compression (G.711, G.726) | Yes/No | Yes/Yes |
| Line Testing | AITDF | AITDF |
| Modem (V.90) Transmission | Yes | Yes |
| Modem Tone Detection | No | Yes |
| Metering Pulses (TTX) | 2.5 Vrms | 2.5 Vrms |

1) For more members of the VINETIC family contact Infineon sales for more details on VINETIC. VINETIC devices with the same package offer pin- and SW-compatility

## Product Summary

| Type | Sales Code | Description | Package |
|---|---|---|---|
| VINETIC-4C | PEF 3394 E V2.2 | 4-channel voice codec with integrated DSP functions | P/PG-LBGA-176-3 |
| VINETIC-4C | PEF 3394 HL V2.2 | 4-channel voice codec with integrated DSP functions | PG-LQFP-176-2 |
| VINETIC-4C | PEF 3394 EL V2.2 | 4-channel voice codec with integrated DSP functions | P/PG-LBGA-144-1 |
| VINETIC-4S | PEF 3304 E V2.1 | 4-channel voice codec | P/PG-LBGA-176-3 |
| VINETIC-4S | PEF 3304 HL V2.1 | 4-channel voice codec | PG-LQFP-176-2 |
| VINETIC-4S | PEF 3304 EL V2.1 | 4-channel voice codec | P/PG-LBGA-144-1 |




## Application Example: VoIP Linecard with integrated Ringing

How to reach us:
**http://www.infineon.com**

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