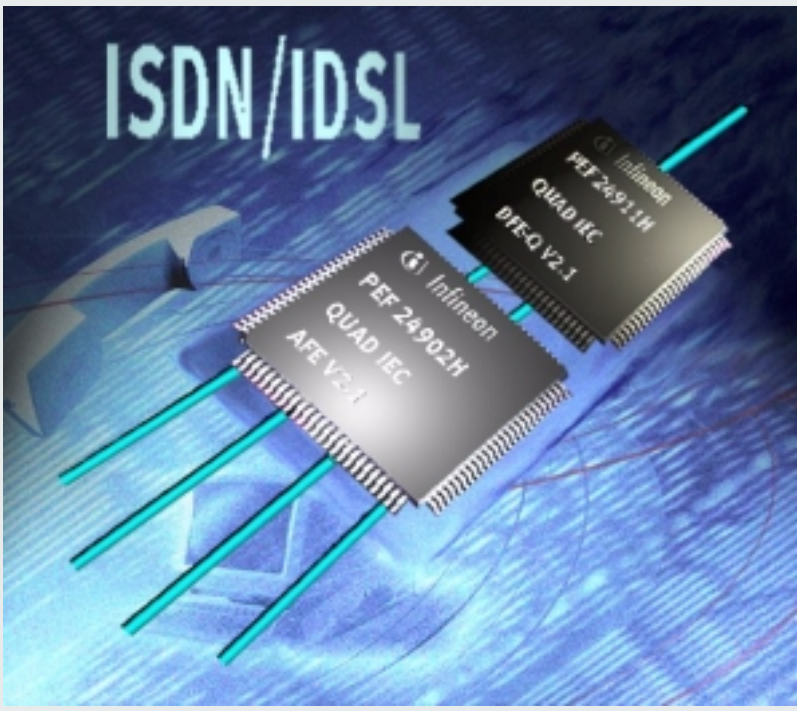
IEC4-Q

PEF 24911 V2.1 (DFE-Q) & PEF 24902 V2.1 (AFE)

ISDN Echocancellation Circuit 4-Channel for 2B1Q Line Code



The widely used ISDN 4-channel chipset IEC4-Q consisting of the analog frontend PEB/F 24902 (AFE) and the digital frontend PEB/F 24911 (DFE-Q) has been optimized by a redesign of the digital part. The improvements of the DFE-Q are a reduced supply-voltage due to its advanced low power 3.3V-CMOS-technology, the doubling of the IOM®-2 data-rate up to 4Mbit/s and new features in terms of testability and analysis. The IEC4-Q chipset fulfills all relevant ANSI, ETSI and ITU standards. Because of its multichannel-architecture it is extremely suitable for highly integrated ISDN- and IDSL-linecards.

ISDN/IDSL

Applications

- Central office digital linecard
- Access network linecards
- PBX Linecards

Features

- Two chip solution featuring full duplex data transmission and reception over two-wire metallic subscriber loops providing 4x ISDN basic rate access or 4x IDSL access at 144kbit/s
- Fully compliant to:
  - ANSI T1.601 (1998)
  - ETSI TS 102 080 (1998)
  - Recommendation ITU-T G.961
- Meets requirements for all ANSI and ETSI loops
- 2B1Q block code at 80 kHz symbol rate
- LT mode
- Low power consumption
- IOM®-2 interface for stand alone mode
- Activation and deactivation
- Masterclock generated by PLL
- Automatic polarity adaption
- Automatic gain control
- Adaptive echocancellation
- Adaptive equalization
- 4 relay driver pins per channel to switch relays or power controller
- 2 status pins per channel
- Extended temperature range (-40°C to +85°C)
- JTAG boundary scan
- P-MQFP-64 package
- Part of the Infineon system solution

Add-On Features of the DFE-Q PEF 24911 V2.1 compared to V1.x

- Max. IOM®-2 data rate 4 Mbit/s (DCL=8MHz)
- +3.3 V instead of +5V power supply
- Dedicated pins for SSP and DT test modes
- DOUT configurable either as open drain or push-pull (tristate) output
- Monitor Time-Out (MTO)
- New MON-12 class features internal register access
- Additional digital local loops
- Bit Error Rate Measurement per port
- Optimized LT-state machine
- Backward compatibility to V1.x:
  - no software changes required
  - pinning-compatible

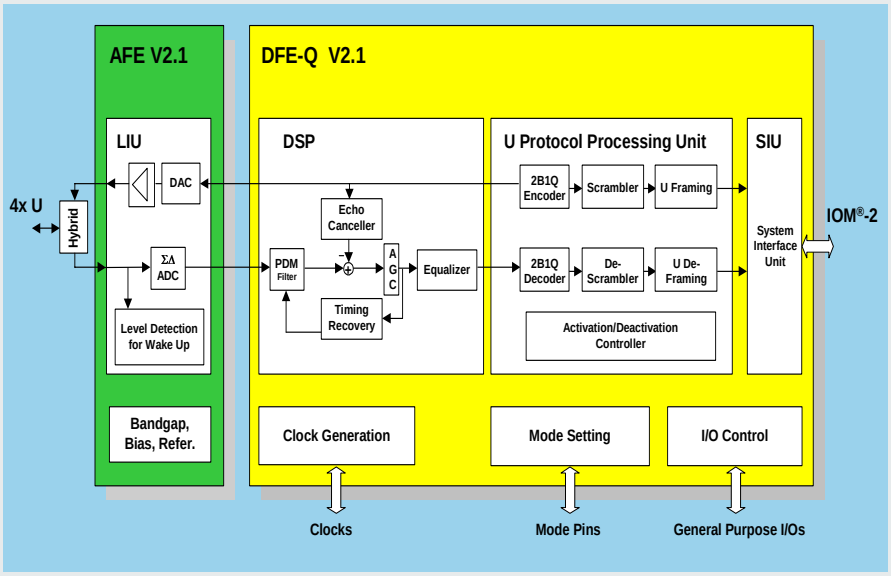
ISDN/IDSL

4-Channel Chipset

Infineon technologies

Never stop thinking.

Block Diagram



Ordering Code

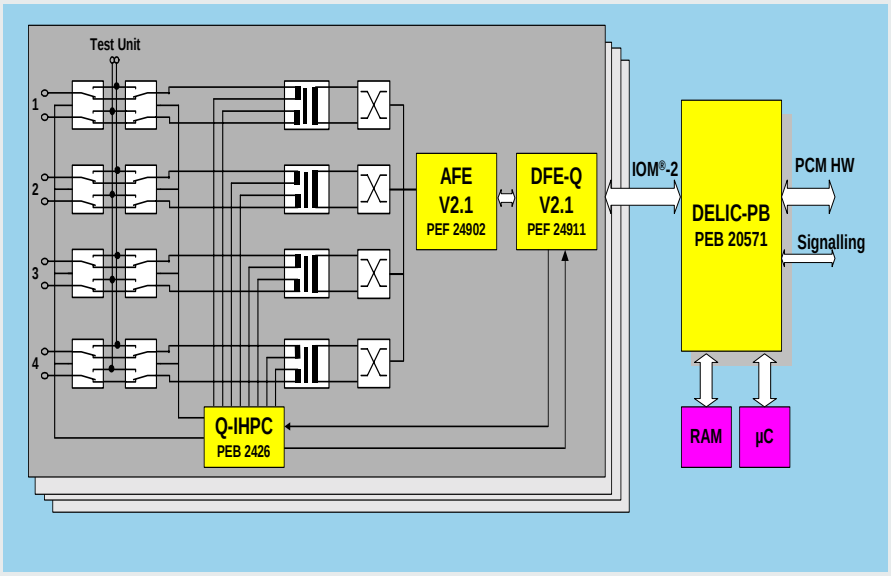
Type	Package	Sales Code	Availability
PEF 24911 H V2.1	P-MQFP-64	Q67233-H1233	Development
PEF 24902 H V2.1	P-MQFP-64	Q67101-H6850	Available

Tools and Documentation

Name	Sales Code	Status
Data Sheet PEB/F 24902 V2.1		03.00
Data Sheet PEF 24911 V2.1		08.00
Smart 24911 V2.0 Demoboard	Q67230-H1234	Development

Application Example

ISDN/IDSL Linecard



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

Published by
Infineon Technologies AG,
Bereich Kommunikation,
St.-Martin-Strasse 53,
D-81541 München

Attention please!

The information herein is given to describe certain components and shall not be considered as warranted characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Published by Infineon Technologies AG

Ordering No. B000-H0000-X-X-7600
Printed in Germany
PS 02003. NB