

PEB 55508 (GEMINAX-D)
 PEB 22720 (GEMINAX-A0)
 PEB 22716 (GEMINAX-L2)

GEMINAX ADSL Transceiver Chipset

The GEMINAX ADSL transceiver chipset supports ADSL data transmission according to ITU-T standards G.dmt and G.lite. With industries lowest board space requirements and a power consumption of less than 1 W/ch, the new GEMINAX ADSL transceiver chipset fulfills all requirements for highly integrated DSLAM applications.



GEMINAX

Applications

- ADSL DSLAM systems

Features

- G.dmt/G.lite chipset for 8 channels
- Individual configuration of each channel for G.dmt or G.lite operation
- Compliant to ITU-T G.992.1 (G.dmt), G.992.2 (G.lite), and G.994.1 (G.hs)
- Compliant to ANSI T1.413 I2
- Compliant to ETSI ETR 328
- Performance measurements according to ITU-T G.996.1 (G.test)
- OAM functionality according to ITU-T G.997.1 (G.ploam)
- Max. 16 Mbit/s downstream and 2 Mbit/s upstream data rate
- S=1/2 supported
- Fully echo cancelled for overlapped spectrum operation
- Double upstream mode for Annex B via firmware upgrade
- Trellis coding and Viterbi decoding
- Bit swapping upstream/downstream
- Very low noise (S/N>80dB) in downstream and upstream direction
- ATM UTOPIA-2 interface (50 MHz, 16 bit/8 bit)
- On chip ATM-TC layer
- Pseudo STM mode via UTOPIA
- 8-bit parallel host interface
- All memory on-chip, no external memory required for GEMINAX-D
- Built in PLLs and clock generation
- Configurable digital and analog test loops
- Future proof due to software upgrade options
- Dr.DSL(TM) firmware running on GEMINAX-D for ADSL pre-qualification, bundle management and maintenance
- Single-ended testing supported by Dr.DSL(TM) software
- Simplified PCB layout with P-TQFP packages (< 1.1 inch² area per channel, including external parts, transformer and layout space),
- With P-LBGA packages < 0.9 inch² area per channel (including external parts, transformer and layout space)
- < 1 W power dissipation per channel (20 dBm line level)
- Power down mode on per channel and block basis
- Support of power down wake up by CPE activity
- -40°C to +85°C operating range

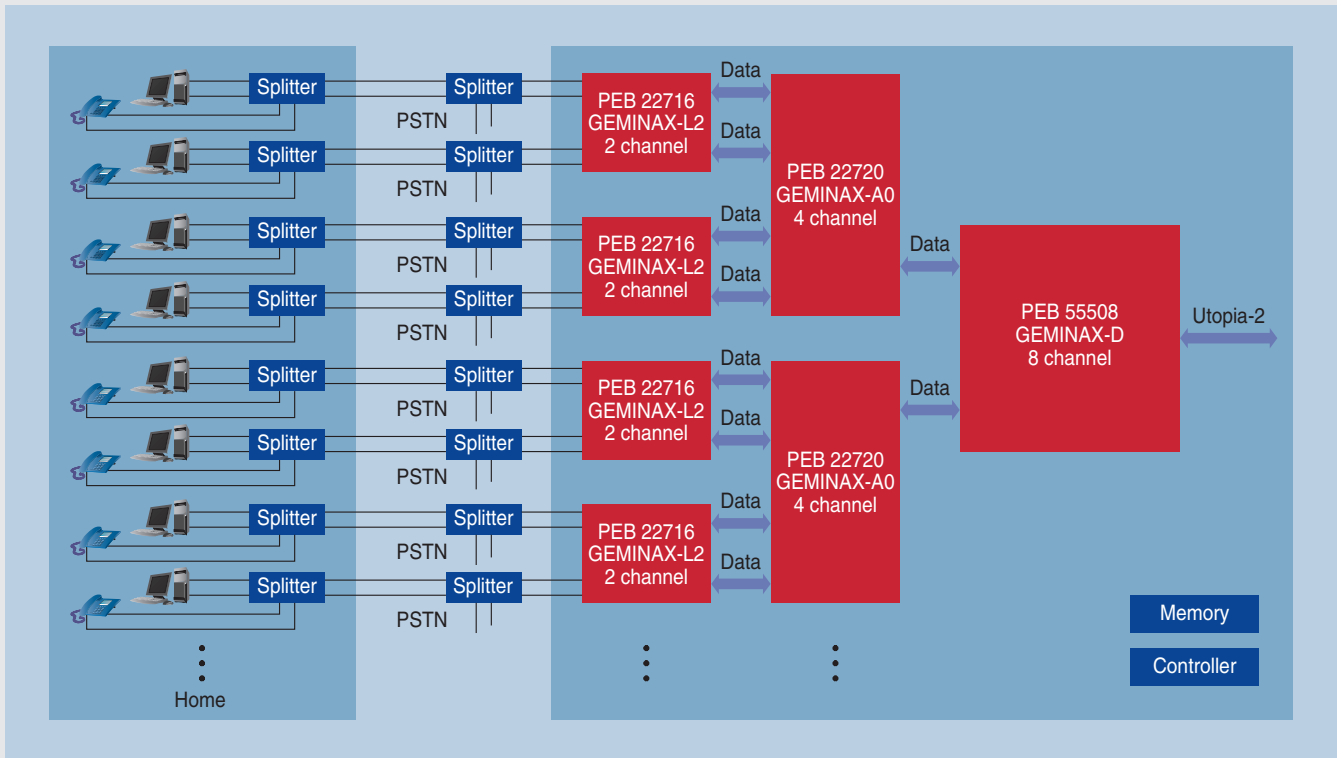
G E M I N A X

Global Enhanced Multiport
 Integrated ADSL Transceiver

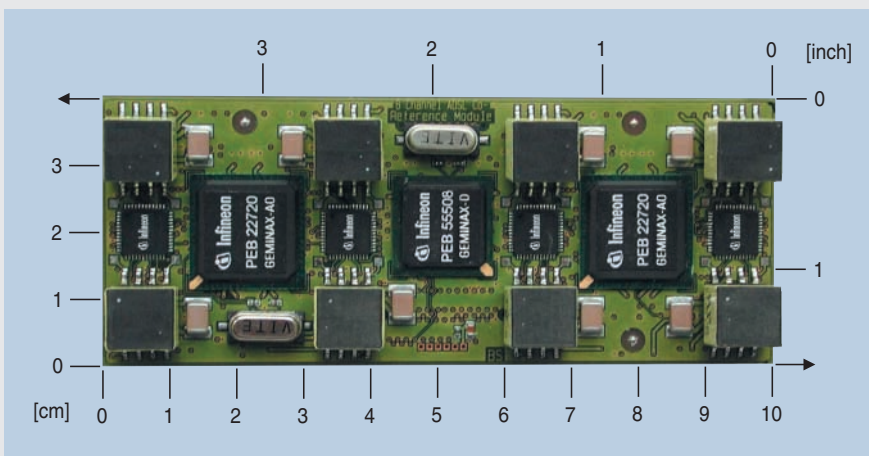


N e v e r s t o p t h i n k i n g .

ADSL Transceiver Chipset Principle



8 Channel ADSL DSLAM Linecard with GEMINAX



GEMINAX-D

ADSL Data DSP, 8 channels, P-TQFP-144 or P-LBGA-256 package

GEMINAX-A0

Analog Front End for ADSL, 4 channels, P-TQFP-144 or P-LBGA-192 package

GEMINAX-L2

ADSL Dual-Channel Linedriver, 2 channels, P-DSO-36 or P-VQFN-48 package

- Applications for high density DSLAM linecards; < 0.9 inch² per single channel required
- ADSL full-rate or lite operation selectable for each channel
- ADSL loop qualification by on-chip Dr.DSL (TM) firmware, no additional hardware required
- Lowest power dissipation & integrated power management capabilities

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

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

© Infineon Technologies AG 2001. All Rights Reserved.

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.