

PEB 35512 (GEMINAX-V)
 PEB 55508 (GEMINAX-D)
 PEB 3558 (GEMINAX-A)
 PEB 4561 (GEMINAX-S)
 PEB 22716 (GEMINAX-L2)
 PEB 4565 (GEMINAX-SL)

Global Enhanced Multiport Integrated
 ADSL Transceiver



GEMINAX

Applications

- Splitterless multirate ADSL data transmission combined with POTS voice for CO, Access Network, MSAP and DLC

Features

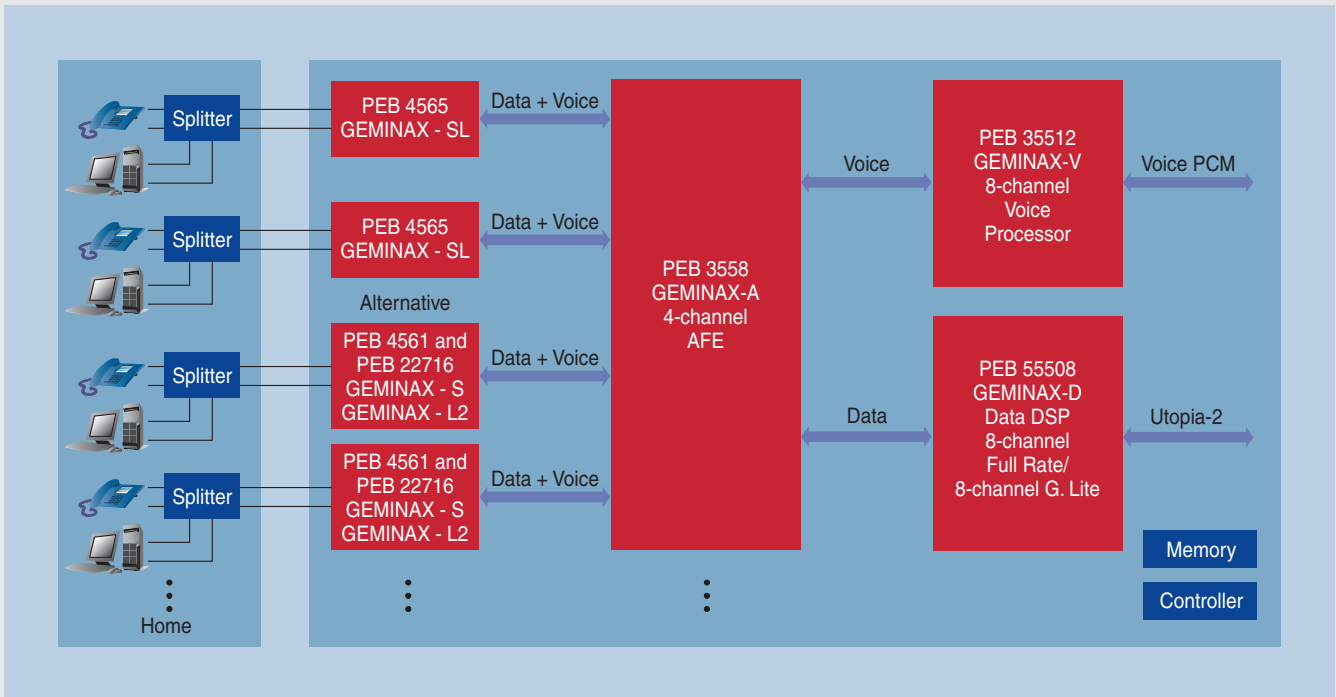
- Combined voice and G.dmt/G.lite chipset (IVD) for 8 channels
- No additional POTS splitter required for ATU-C side
- Compliant to ITU-T G.992.1 (G.dmt), G.992.2 (G.lite), and G.994.1 (G.hs)
- Compliant to ANSI T1.413 I2
- Performance measurements according to ITU-T G.996.1 (G.test)
- Compliant to ITU-T Q.552 Z Interface, LSSGR TR57/507 for voice transmission
- ATM UTOPIA-2 interface
- 8-bit parallel host interface
- PCM or IOM-2 interface
- All memory on-chip, no external memory required for GEMINAX
- Future proof due to software upgrade options
- Programmable digital filters for country specific settings like:
 - Impedance matching
 - Transhybrid balancing
 - Frequency response
 - Gain
- Fully programmable DC characteristics
- Programmable teletax injection and filtering
- Polarity reversal (soft/hard) for payphones
- Integrated ringing
 - Programmable ring amplitude (up to 85 Vrms)
 - Automatic DC ring trip detection with programmable threshold
 - Ring generation with zero crossing injection
 - No ring relays required
- External ringing supported
- Programmable thresholds for on-hook, off-hook and ring trip detection
- Integrated DCXO for synchronization of PCM voice and ADSL data subsystems
- Support of software controlled Integrated Test & Diagnostic Functions (ITDF):
 - Integrated line testing
 - Loops for Integrated Board/
 - Circuit Testing
- Dr.DSL(TM) firmware running on GEMINAX-D for ADSL pre-qualification and maintenance
- < 1 W power dissipation per channel (20 dBm line level, on-hook)
- -40°C to +85°C operating range

G E M I N A X

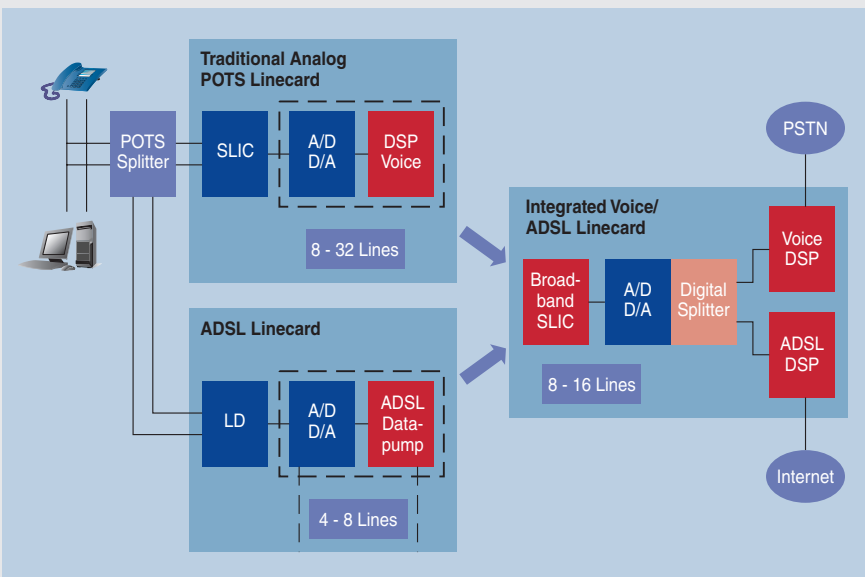
Global Enhanced Multiport
 Integrated ADSL Transceiver



Integrated Voice Data (IVD) Principle



Splitterless High Integrated Voice & Data Linecard



- Applications for high-density IVD Linecards
- ADSL full-rate or lite operation selectable for each channel
- Support of all analog linecard services and BORSCHT functions

- Only one single linecard without any external POTS splitter required
- POTS and ADSL loop qualification by on-chip firmware, no additional hardware required

GEMINAX-V

ADSL Voice DSP, 8 channels, P-MQFP-64 package

GEMINAX-D

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

GEMINAX-A

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

GEMINAX-S

Broadband SLIC, 1 channel, P-VQFN-64 package

GEMINAX-L2

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

GEMINAX-SL

Broadband SLIC and Linedriver, 1 channel, P-DSO-36 package

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