



# Lantique™ GEMINAX™ PRO/ MAX Rev2

Compact ADSL2+ Chip Sets for DSLAM applications GEMINAX™-D16 (D8)/-A8+ (A8)/-L2 PRO/MAX Rev2

## Supported Standards

- LCompliant to ITU-T G.992.5 (ADSL2+), G.992.3 (ADSL2) and G.992.4 (ADSL2 lite)
- In addition, G.992.1 (G.dmt), G.992.2 (G.lite), Annex A, B, C, & G.994.1 (G.hs)
- Compliant to ANSI T1.413 I2 and ETSI TS101388
- ADSL2 Annex I, J (All Digital Loop) & M
- ADSL2+ Annex I, J & M (up to 3 Mbit/s)
- Reach-extended ADSL according to G.992.3 Annex-L
- Enhanced INP according to ITU-T, Amendment 1 to G.992.3/5, S0<=1/16, D0 up to 511 in downstream latency path 0; all supported
- Support of ITU-T, Amendment 3 to G.992.5, paragraph § 7.6.2 Optional 24000 bytes interleaver size
- G.997.1 (G.ploam) & RFC 2662 supported

## Interfaces

- 8/16-bit ATM UTOPIA-2
- Pseudo-STM interface
- Higher UTOPIA throughput
- 8-bit parallel host
- ATM in-band control for controller-less operation
- JTAG Boundary Scan

## Power Consumption

- ~950 mW per channel in ADSL2+ mode

Lantique™ GEMINAX™ PRO/ MAX Rev2 is the latest ADSL2/2+ chip set of the GEMINAX™ chip set family. Targeted for CO, DLC, DSLAM and Multi-Service-Access Networks (MSAN) applications, the GEMINAX™ PRO/MAX Rev2 features full support of the latest international standards of ADSL / ADSL2 / ADSL2+.

Pin compatibility with previous GEMINAX versions ensures a seamless upgrade of existing ADSL2/2+ CO line cards to the latest standards. With this advanced chip set, Broadband Access equipment vendors can create compact, low-cost ADSL line cards that combine industry-leading performance with lowest BOM costs, high port density and low power dissipation.

With its enhanced INP functionality the chipset is tailored to support triple play and IPTV services over ADSL2/2+.

Together with Lantique™ VINETICTM Codec/ SLICTM solutions, the GEMINAX PRO/ MAX Rev2 chip set can easily migrate towards splitter-less Integrated Voice/Data applications.

## Applications

- Multi-standard ADSL2/2+ DSLAM, DLC, MSAN line cards for Central Office applications

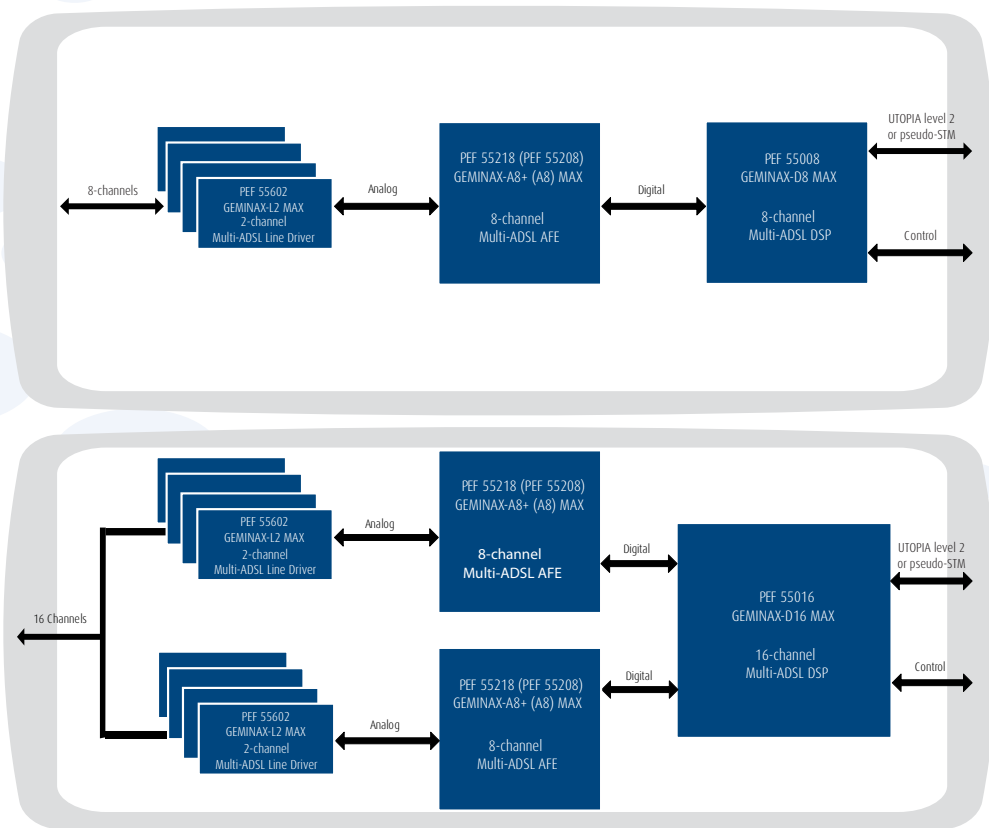
## Features

- ADSL/ADSL2/ADSL2+
- Individual port configuration
- No external memory required
- Easy standard adaptation through software upgrades
- Pin-, firmware & SW backward compatible to previous GEMINAX® PRO/ MAX chip set families
- 20-bit constellation
- Broadband line testing
- 32K interleaver delay in downstream, 4k in upstream
- Generalized convolutional interleaver, dynamic change of interleaver depth
- ATM header compression - macro cell mode according to ITU-T proposal LC-039: 'Proposal on ATM cell header compression', (Infineon®)
- ATM bonding according to ITU-T G.998.1 / NIPP-NAI, T1.427.01-2004

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## GEMINAX® PRO/ MAX Block Diagram



## Product Summary

Product	Sales Code	Description	Package
GEMINAX-D8 MAX	PEF 55008 E V2.1	8-channel ADSL2+ DSP	P-LBGA-256
	PEF 55008 F V2.1		P-TQFP-144
GEMINAX-D16 PRO E V2.1	PEF 55016 V2.1	16-channel ADSL2+ DSP	P-LBGA-484
GEMINAX-A8 MAX	PEF 55208 E V2.1	8-channel ADSL2+ Analog Front End	P-LBGA-256
GEMINAX-A8+ MAX	PEF 55218 E V2.1	8-channel ADSL2+ Analog Front End	P-LBGA-256
GEMINAX-L2 MAX	PEF 55602 V V2.1	2-channel ADSL2+ Line Driver	P-VQFN-48-7
	PEF 55602 T V2.1		P-DSO-36
	PEF 55602 HL V2.1		PG-LQFP-64-8



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