



# Lantiq™ VINAX™ V3

## VDSL2/ADSL/2/2+ Chipset for Future FTTx, MDU, MSAN and DSLAM Applications

### Features

- Highly flexible and most efficient chip set matching all VDSL2 profiles from 8a-d up to 30a
- Per port support of legacy ADSL/2/2+ backward compatibility
- 16-port (17 MHz) and 8-port (30 MHz) granularity
- Ultra low power consumption
- Fully compliant to all relevant DSL standards, including G.999.1, G.998.4, G.996.2, G.993.5
- Up to 8 port Linecard-level and Chip-level bonding support
- Programmable transmit power up to 20.5dBm
- Worldwide deployment with one hardware due to innovative analog subsystem and software configurable transmit/receive spectra
- Mixed deployments with and without POTS services supported with one design, enabling a smooth transition to all-DSL networks
- Support for Long-Reach VDSL2
- Extended US0 band up to 552 kHz (Single/ Double/Quadruple US0)
- Flexible interfaces to all types of network-processors, supporting multiple streams for QoS sensitive applications
- Per port independent ATM and PTM framing-configuration
- Diagnostic modes DELT and SELT
- Full featured loop test and qualification capabilities including metallic loop testing support
- Industrial temperature range from -40°C up to +85°C

The Lantiq™ VINAX™ V3 is the next generation VDSL2/ADSL/2/2+ chipset for future FTTx, MDU, MSAN and DSLAM applications. As a single chipset that covers both 17 MHz and 30 MHz applications, system vendors can offer highly flexible and cost-optimized VDSL2/ADSL2+ systems for exchange, cabinet and MxU market segments.

VINAX™ V3 features best-in-class performance for density, power, and cost to support the large-scale deployment of VDSL2 technology in next-generation telecom networks. Chipset granularities of 8-port in VINAX™-L Mode (30 MHz) for lower density MxU applications and 16-port architecture in VINAX™-M Mode (17 MHz) for high density exchange and cabinet applications, enabling system vendors to increase line card densities to 72-channels and more. VINAX™ V3 is ADSL/2/2+ backwards compatible (up to 20.5 dBm) and offers full programmability (PSD, band plan, etc.)

To meet the increasing demand for next-generation high-definition IPTV and VoIP applications, VINAX™ V3 offers full standard compliance to all relevant DSL standards including G.INT (G.999.1), Retransmission (G.998.4), SELT and MELT (G.996.2), and Vectoring (G.993.5). To extend the range of VDSL2 long-haul applications, VINAX™ V3 includes linecard-level and chip-level bonding functionality up to 8 ports.

VINAX™ V3 supports full system vectoring with the Lantiq Vector Engine. “Vectoring ready” linecards can be designed now which can be upgraded to vectoring any time.

The integrated MELT Controller provides line testing and service monitoring functionality.

### Applications

- Central Office and Remote ATM/IP DSLAMS
- Digital Loop Carrier (DLC)
- Integrated Packet Voice & Data (IPVD) line cards
- Multi Service Access Network Platforms (MSAN)
- Multiple Dwelling/Tenant Units (MDU/ MTU) networking
- Optical Network Termination/Unit (ONU/ ONT)
- FTTC/FTTB & LAN extension
- Multipoint Mobile-Backhaul Systems

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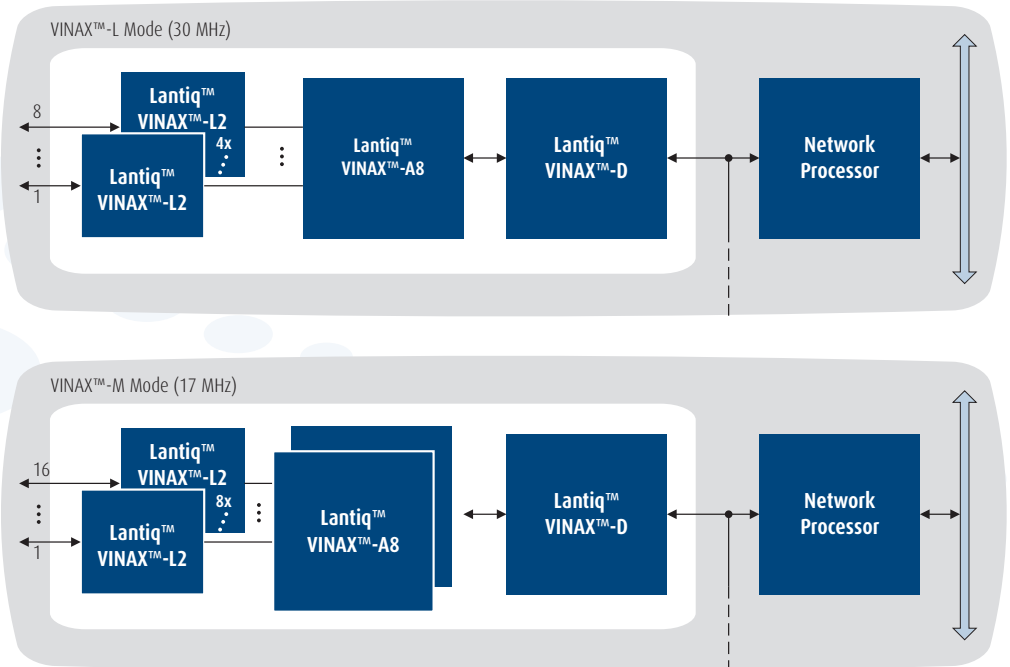
## Key Standards

- VDSL2 (G.993.2)
- ADSL/2/2+ (G.992.1, G.992.3, G.992.5)
- G.HS, G.PLOAM (G.994.1, G.997.1)
- EFM (IEEE 802.3 ah)
- SELT & MELT - G.LT (G.996.2)
- Retransmission - G.INP (G.998.4)
- G.BOND (G.998.1/2)
- G.VECTOR (G.993.5)

## Interfaces

- SGMII (G.999.1)
- GMII (G.999.1)
- ITU-T G.999.1 interface sublayer
- SSS-MII
- POSPHY - L2
- POSPHY - L3 (SPI-3)
- parallel host
- JTAG interface

## VINAX™-Architecture



## Product Summary

Product	Sales Code	Description	Package
VINAX™-D V3	PEF 88300 EL V3.1	16-channel 17 MHz DFE /8-channel 30 MHz DFE	PG-LFBGA-400
VINAX™-A8 V3	PEF 88208 EL V3.1	8-channel 17 MHz AFE /8-channel 30 MHz DFE	PG-LFBGA-225
VINAX™-L2 V3	PEF 88602 V V3.1	2-channel 30 MHz LD	PG-VQFN-32



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**Order Number:** PB-e-0043-v1