





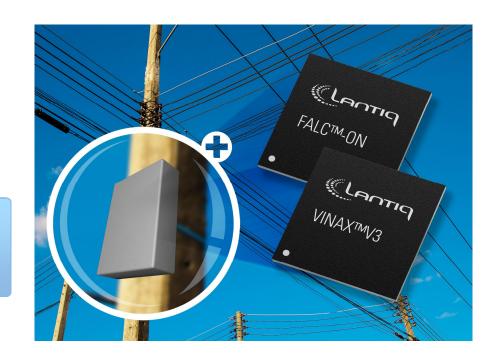
Watch out!

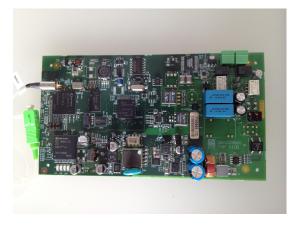
Fiber-to-the-Distribution-Point (FTTdp) Live Demo!

1st Commercially available FTTdp solution!

250 Mbps Bandwidth

Fully Reverse Powered!





Co-developed with Aethra® Telecommunications!





What is Fiber-to-the-Distribution-Point?

- Fiber rollout has been slow until now because of the problems related to FFTH and FTTB
- FTTH often <u>can't</u> be used in existing buildings:
 - Construction works have high costs and uncertain lead times

BUT

- FTTB <u>is not</u> a Plug and Play solution for carriers:
 - They have to deal with electric utilities in each one of the buildings

FTTdp SOLVES
THESE ISSUES!





What is Fiber-to-the-Distribution-Point?

- Fiber-to-the-Distribution-Point is hybrid FTTB: fiber arrives up to the basement of the building and VDSL2 is used over the vertical copper cabling
- Hybrid Nework Terminations are single-user reverse-powered modules:
 - Power comes from the user's home throught the same copper cabling used for VDSL2 (Aethra® Telecommunications patent pending technology)

AND

- VDSL2 over this short distance is superfast:
 - Up to 250Mbps aggregated datarates

GUARANTEED LEAD TIMES

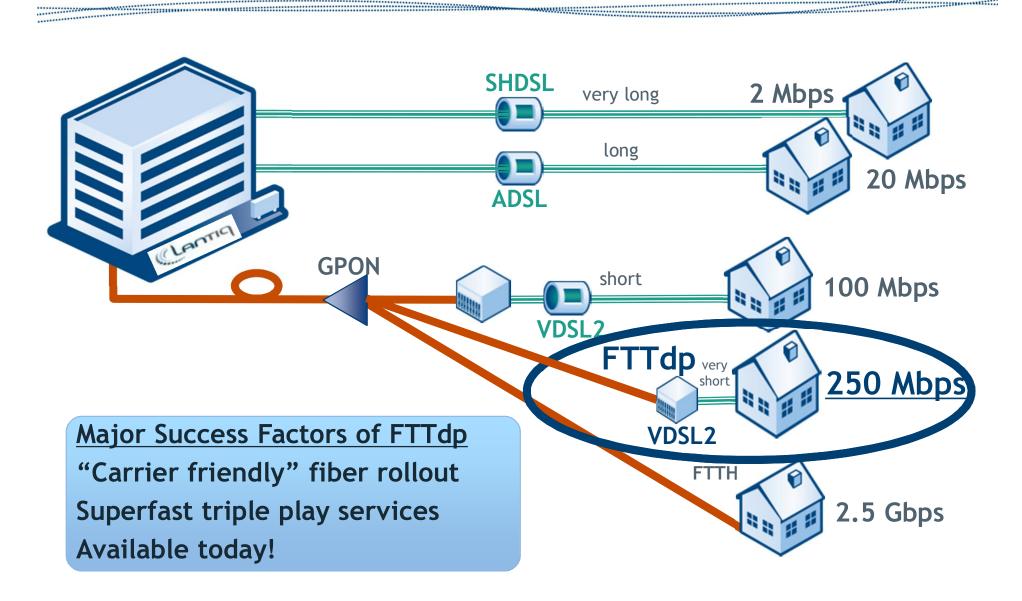
COST EFFECTIVE FIBER ROLLOUT

VDSL2 SUBSCRIBERS EASY UPSELLING





FTTdp Access Network Solution

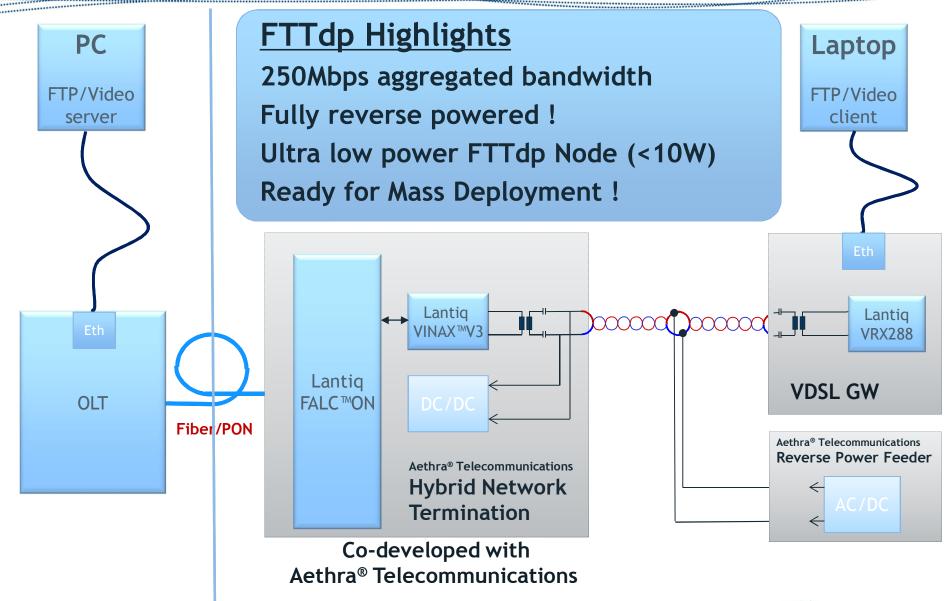






Fiber-to-the-Distribution Point

Architecture with Lantiq Chipsets







Vinax V3 - Lantiq VDSL2 CO Chipset





Doubling Linecard Density

- Smallest Package Size in the Industry
- High Density Linecard up to 72 channels
- Single Chipset supporting 17MHz and 30MHz



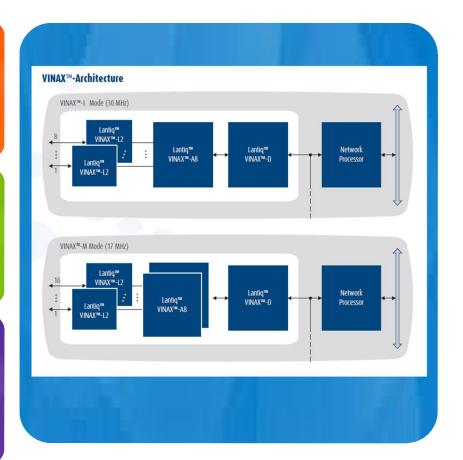
Lowest Power Consumption

- Industry-leading power consumption of 0.9W per port
- Surpassing Code of Conduct (CoC) requirements
- Supporting low power class H line driver



Best-in-Class Feature Set

- On-chip integration of MELT controller for remote line testing
- Bonding up to 500Mbps/500Mbps downstream/upstream performance
- "Full System Vectoring"-ready







FALC™ ON - Lantiq's FTTx GPON SoC Family





Significant power savings

- Integrated power management unit
- Direct control of the laser supply and Avalanche Photo Diode(APD) bias current and voltage
- Lowest power consumption far below the CoC requirements



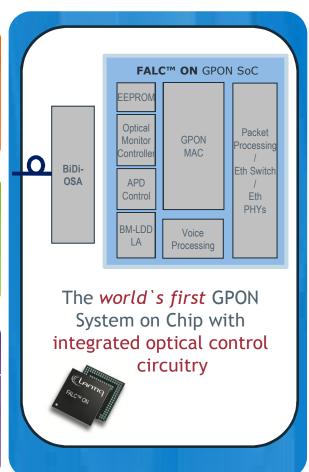
Improved optical network robustness

 On-chip, automatic calibration and compensation of optical components leading to long term stability and improved Network robustness (e.g. Laser aging effects can be compensated)



Significant cost savings

- Direct interface to low cost GPON BiDi-OSA/BOSA
- Integrated Burst-Mode Laser Driver and Limiting Amplifier
- Up to 40% savings by using a BOSA instead of the optical Module
- Integrated Energy Efficient (EEE) Gigabit Ethernet Phys and Voice Codecs







Aethra® Telecommunications HGV1+ Access System

- Aethra® Telecommunications HGV1/HGV1+ Access System
 - Fiber-to-the-Distribution-Point without/with the need of POTS signal regeneration
 - ► Aethra® Telecommunications HNT1/HNT1+
 - Hybrid GPON-VDSL2 network termination, without/with POTS regeneration
 - ▶ Aethra® Telecommunications RPF1/RPF1+
 - Hybrid GPON-VDSL2 network termination, without/with POTS regeneration



