



LantIQ™ COSiC™-Modem

The future-proven Single Chip Base Station

Solution for DECT/ CAT-iq™ Basestations in VoIP Home Gateways

DECT/ CAT-iq™ Solution

- COSiC™-Modem:
 - CAT-iq base station functionality in combination with LantIQ Gateway solutions (e. g. XWAY™ ARX300 Family, XWAY™ GRX300 Family etc.)
 - Long-slot support with up to 6 handsets according to the CAT-iq standard
 - Supports CAT-iq™ 1.0 - 4.0
 - Fully SW-upgradable in system
 - Support of all worldwide existing DECT Standards (1.7 – 1.9 GHz)
 - Fully adjustable RF transmit power
 - Optimized System BoM
- COSiC™-PLUS Handset:
 - CAT-iq™ compliant
 - G.722 wideband support
 - Long-slot support
 - Full-duplex hands-free with integrated loudspeaker driver
 - True polyphonic ringing
 - Color LCD support with white LED driver for backlighting

VoIP Home Gateway SoCs

- XWAY™ ARX388 and GRX388:
 - LantIQ Smart CPU Architecture based on 32-bit MIPS @ * 34Kc Core
 - Carrier-grade 802.11n WLAN with Thick MAC architecture
 - Smart Acceleration based upon 32-bit multi-threading Protocol Processor Engine (PPE) for guaranteed session bandwidth & QoS (e. g. IPTV)
 - Integrated 7-port Gigabit Ethernet switch
 - IPV6-enabled

The COSiC™-Modem together with COSiC Plus from LantIQ enables the most cost optimized DECT/ CAT-iq™ Handset and Base Station/ VoIP Gateway and Terminal Adapter solutions for the home networking environment. The highly flexible and scalable feature-set supports all relevant standards like DECT, DECT6.0 and CAT-iq™.

The COSiC™-Modem is the first true single chip DECT base station solution addressing CAT-iq™ 1.0 - 4.0. Integrating a baseband controller, RF transceiver and power amplifier on the same chip the COSiC™ provides the pre-requisite for:

- Lowest system Bill-of-Material
- Simplified development and design
- Best-in-class system performance
- In-system upgradability for future-proven designs

The COSiC™-Modem combined with LantIQ's Home Gateway SoCs is a highly innovative system approach which uses the main processor to run system related tasks such as voice coder processing and the DECT Software stack. The COSiC™-Modem is used for all DECT specific tasks.

This DECT/ CAT-iq™ and VoIP Gateway combination provides:

- Optimized design and cost for DECT/ CAT-iq™ Gateways and Terminal Adapters,
- Seamless extension of LantIQ's broadband CPE platforms,
- Flexible system structure and fast time-to-market,
- Easy remote update and configuration of the Gateway and DECT specific software,
- A single call control without the synchronization between two independent software stacks,
- Single system memory without the need for customized ROM or flash variants for DECT/CAT-iq™ connectivity
- Full field upgradability of COSiC Modem for CAT-iq™ 1.0-4-0

LantIQ provides a completely integrated DECT/CAT-iq SW Subsystem in its Standard Gateway Software Package UGW. The DECT/CAT-iq subsystem contains a certified and qualified CAT-iq compliant protocol stack as well as user-friendly middleware which allow fast time to market SW system designs. The SW subsystem provides highly integrated API functionalities in order to adapt to customer application SW solutions smoothly.

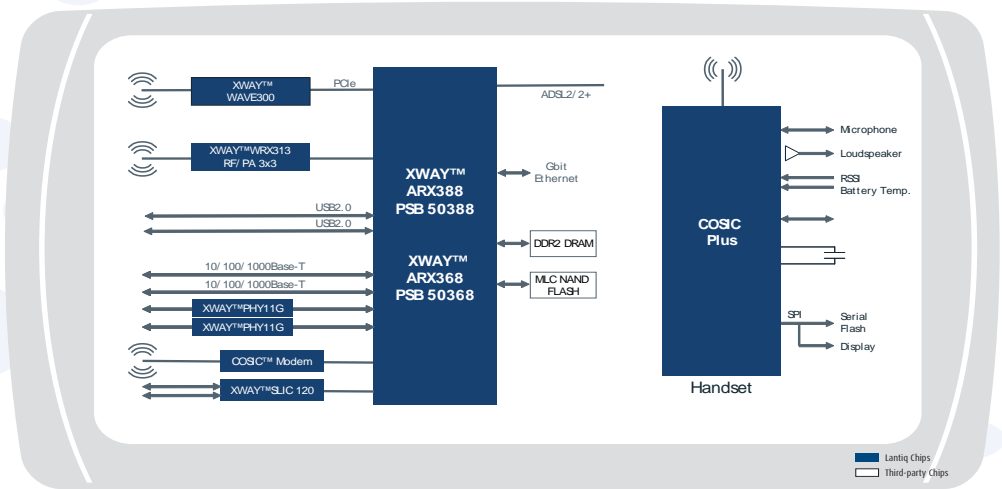
Lantiq™ COSIC™-Modem

The most flexible Single Chip Basestation Solution for DECT/ CAT-iq™ Applications

Feature-rich concurrent dual-band WLAN gateway with alternative WAN interface (ADSL2/2+ or Gbit Ethernet)

- Up to 6 DECT/CAT-iq™ Handset with wideband voice support
- G.722, G.726, G.711, G.729A/B, G.723.1, iLBC VoIP coders
- Simultaneous calls on all handsets and VoIP conferencing with external or internal subscribers
- Complete integrated ADSL2/2+ PHY (incl.LD)
- 5 x FE/3 x GE Auto-MDIX PHYs
- Carrier-grade embedded 802.11n WLAN with Thick MAC architecture
- 2 x PCI Express 1.1 lanes
- 2x USB 2.0 host
- Smart SLIC™ interface (SSI) for seamless connectivity to XWAY™ SLIC100 family

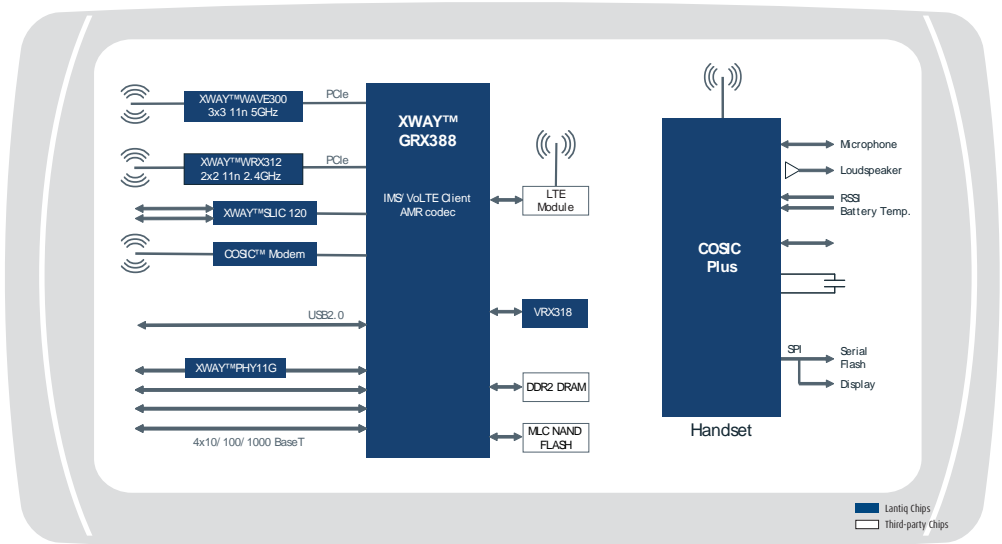
Application Example XWAY™ ARX388/368 ADSL DECT Gateway



Feature-rich concurrent dual-band WLAN gateway with LTE and/or VDSL WAN interface

- Up to 6 DECT/CAT-iq™ Handset with wideband voice support
- G.722, G.726, G.711, G.729A/B, G.723.1, iLBC VoIP coders
- Simultaneous calls on all handsets and VoIP conferencing with external or internal subscribers
- Optimized, leading edge pre-integrated LTE modules
- Same platform for different WAN Router products
- One system and SW development for multiple WAN requirements
- Carrier-grade embedded 802.11n WLAN with Thick MAC architecture
- 5 x FE/3 x GE Auto-MDIX PHYs
- 2 x PCI Express 1.1 lanes
- 2x USB 2.0 host
- Smart SLIC™ interface (SSI) for seamless connectivity to XWAY™ SLIC100 family

Application Example XWAY™ GRX388 LTE DECT Gateway



Product Summary

Code	Product	DECT/DECT6.0	CAT-Iq™
PMB 9603	COSIC-PLUS: Handset with wideband speech	X	X
PMB 9643	COSIC-Modem	X	X

CAT-iq™ is the registered trademark of the DECT Forum.
CAT-iq™ is the new global technology for broadband home connectivity.



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

Published by Lantiq
85579 Neubiberg, Germany

© 2013 Lantiq. All Rights Reserved.

Legal Disclaimer The information given in this Product Brief shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Lantiq hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party.

Information For further information on technology, delivery terms and conditions and prices, please contact the nearest Lantiq Office (www.Lantiq.com).

Warnings Due to technical requirements, components may contain dangerous substances. For information on the types in question, please contact the nearest Lantiq Office. Lantiq components may be used in life-support devices or systems only with the express written approval of Lantiq, 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.

Order Number: PB-e-0034-v2