



Lantiq™ XWAY™ SLIC100 Family

Dual or Single Channel SLIC™ for Gateway SoC

Hardware Features

- Dual or single channel FXS line interface
- Integrated balanced ringing up to 85 V_{RMS} and integrated unbalanced ringing up to 50 V_{RMS}
- Integrated DC/DC controller per channel for optimized generation of line supply voltage
- Minimum power dissipation in all operating modes (patented solution for ringing)
- Sensing of transversal and longitudinal line currents
- Packaged in PG-LQFP-100 (no heat sink or thermal pad) and in PG-VQFN-88 or PG-VQFN-48 (with thermal pad)
- Programmable DC feeding
- Loop and ground start signalling
- Integrated Test and Diagnostic Functions
- Low bill of materials (BoM) costs
- Enables high density system solutions

Lantiq™ XWAY™ SLIC100 is a family of single chip solutions offering dual or single channel telephone line interfaces optimized for Customer Premises Equipment (CPE) applications and Small and Medium-sized Enterprise (SME) applications.

All voice-capable gateway products from the XWAY™ xRX100, xRX200 and FALC™ ON families work with the XWAY™ SLIC100, and are connected via a simple 3-pin Smart SLIC™ Interface (SSI). The low power standby mode enables customers to achieve system power consumption values that comply with the requirements of the European Code of Conduct directive.

The high voltage part is able to provide ringing signals of up to 85 V_{RMS}. In all modes of operation an optimized battery supply voltage is generated by means of an integrated DC/DC controller. All relevant parameters are programmable via software thus different markets can be served with a single hardware design that meets worldwide standards.

XWAY™ SLIC100 Family

- XWAY™ SLIC120 - PEF 42068 - 2 x FXS
- XWAY™ SLIC121 - PEF 42168 - 2 x FXS, 1 x FXO codec
- XWAY™ SLIC110 - PEF 41068 - 1 x FXS
- XWAY™ SLIC111 - PEF 41168 - 1 x FXS, 1 x FXO codec

Product Summary

- XWAY™ SLIC100 is paired with all XWAY™ xRX Family Gateway SoCs: XWAY™ ARX, XWAY™ VRX, XWAY™ GRX and FALC™ ON
- Excellent energy efficiency - low power idle mode
- Excellent line testing accuracy
- Board space saving
 - Low component count LoM (list of materials)
 - Low pin count digital interface (SSI) to main processor
- Programmability of parameters to comply to worldwide standards
 - Ringing frequency, amplitude, DC offset
 - Ringing current regulation
 - AC impedance and level
 - DC feeding
- Balanced ringing up to 85 V_{RMS}
- Unbalanced ringing up to 50 V_{RMS}

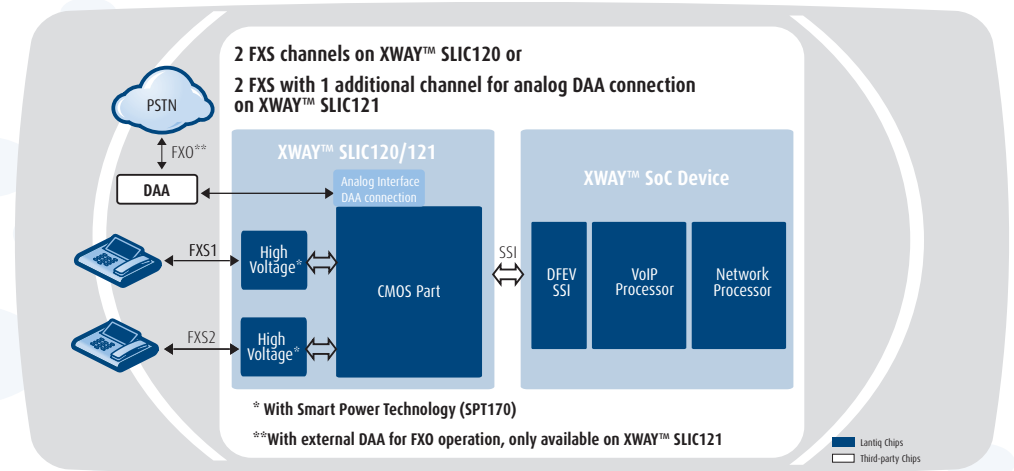
Lantiq™ XWAY™ SLIC100 Family

Dual or Single Channel SLIC™ for Gateway SoC

System Features

- Worldwide programmability for AC transmission performance parameters according to ITU-T Q.552 and Telcordia GR-57-CORE
- CID type 1, 2, 3 transmission support
- Integrated DTMF generator & receiver
- Integrated balanced (up to 85 V_{RMS}) and unbalanced (up to 50 V_{RMS}) ringing
- DC and AC Ring Trip detection
- Fast Ring Trip detection
- Ringing with DC offset
- Loop & ground start signalling
- Ground key detection
- Polarity reversal (hard/soft)
- Lantiq™ TAPI for Linux®
- Wideband audio support (16 kHz, 16-bit linear)
- Integrated Test and Diagnostic Functions according to GR-909
- Internal codec provides glueless interface to an external DAA to realize FXO port functionality
- Message waiting lamp support
- Teletax metering pulse generation

Block Diagram



Product Summary

Product	Sales Code	Description	Package
XWAY™ SLIC110	PEF 41068 V V1.3	Single channel telephone line interface (FXS), integrated ringing, DC/DC controller	PG-VQFN-88
XWAY™ SLIC111	PEF 41168 V V1.1	Single channel telephone line interface (FXS), integrated ringing, DC/DC controller	PG-VQFN-88
XWAY™ SLIC120	PEF 42068 V V1.2	Dual channel telephone line interface (FXS), integrated ringing, DC/DC controller	PG-VQFN-88
XWAY™ SLIC121	PEF 42168 V V1.2	Dual channel telephone line interface (FXS) including FXO codec, integrated ringing, DC/DC controller	PG-VQFN-88

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

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