DUSLIC™-xT
Lantiq’s Next Generation Voice CPE Solution

Typical Applications
- xPON Single Family Units and Home Gateway Units
- Cable modems and set-top boxes
- DSL Integrated Access Devices
- VoIP Terminals
- Analog Terminal Adapters
- PBX and Business Gateways

Features
- Worldwide programmability for AC transmission performance parameters according to ITU-T Q.552 and Telcordia GR-57-CORE
- On-hook transmission
- CID type 1, 2, 3 transmission support
- DTMF generator & receiver
- Integrated DC/DC PWM controller
- Balanced (up to 85 Vrms) & unbalanced (up to 50 Vrms) ringing
- DC, AC and fast ring trip detection
- Loop start signaling
- Ground start signaling
- Ground key indication
- Pulse metering (TTX)
- PCM interface G.711 A-law/μ-law or 16 bit linear
- Serial Control Interface SCI (Lantiq), big and little endian support, SPI compatible
- Linux® TAPI support
- Polling or interrupt driven access
- Wideband audio support (16 kHz, 16 bit linear)
- Integrated Test and Diagnostic Functions

The DUSLIC™-xT1 and DUSLIC™-xT2 line interface solution combine analog codec and high voltage SLICs in a single package with reduced footprint. This unmatched flexibility and performance enables CPE Voice applications with optimized design and cost.

The DUSLIC™-xT is the most recent addition to Lantiq’s mature and field-proven Voice CPE product line. PIN-to-PIN compatible 1 and 2 channel solutions enable customer to design a single hardware on basis of 2-layer design. Compared to other available devices, DUSLIC™-xT offers full CO grade transmission performance (concerning ringing, feeding, DTMF generation & detection, and Caller-ID) with an industrial temperature range. DUSLIC™-xT also supports industry standard (GR-909) line test requirements and additional unique tests such as electronic ring detection to validate lines that have no handset attached.

A Best-in Class Bill of Material and the ability to implement designs on a 2-layer PCB allows CPE system manufacturers to offer voice telephony with CO grade performance and full wideband (16 kHz/16 bit) support at optimized system cost. Industry leading lowest power consumption, measured in both on and off-hook conditions, allows to meet stringent Code of Conduct requirements while using a smaller power supply to further improve system design and cost.

Product Highlights
- PIN-to-PIN compatible 1 and 2 channel solution
- Meets worldwide POTS specification
- CO-grade transmission performance
  - Industrial temperature range (-40°C...+85°C)
  - 150 V ringing voltage
  - Feeding up to 50 mA
  - Automatic ring current regulation
  - DTMF generation & detection
  - Caller ID generation
- Wideband support (16 kHz, 16 bit linear)
- Best-in-class RBOM
- Dedicated schematics and LOM for various applications
- 2-layer reference design
- Shared Protection
- Extremely low power consumption (due to high accuracy DC feeding and ring current regulation)
- Advanced integrated line testing (exceeding GR-909)
- High-level API software package (TAPI)
- Coefficient calculation tool (XTCOS)
- Complete design-in and system package
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### Application Diagram

- **DUSLIC™-xT**
- **PON, DSL or Cable SoC**
- **SRAM**
- **FLASH**
- **USB**
- **POTS**
- **Broadband Network (PON, DSL or Cable)**

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### Product Summary

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<tr>
<th>Sales Code</th>
<th>Description</th>
<th>Package</th>
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<td>PEF 3201 V1.4</td>
<td>DUSLIC™-xT2 - 2 channel CODEC/SLIC</td>
<td>PG-VQFN-88</td>
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**Order Number**: P8-e-0038-v2

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