

# **ZipWire** SDSL/HDSL Transceiver/Framer RS8973 Evaluation Module

## 2B1Q SDSL/HDSL Multi-Rate Transceiver/ Framer Complete Evaluation System

Conexant's RS8973EVM (Evaluation Module) fully exercises the popular member of the ZipWire<sup>™</sup> family, the RS8973. This modular EVM enables complete evaluation of the RS8973 single-chip, SDSL/HDSL multi-rate transceiver and, with special request, can be used to evaluate and test Conexant's advanced AutoBaud technology. Both HTU-C (COT) and HTU-R (CPE) terminals are provided. Each terminal includes a motherboard with 4 daughter card connectors that can accommodate various configurations of RS8973 transceiver line cards, RS8953B Channel Unit cards and BNC cards. The motherboard also includes a microcontroller and its associated support circuitry (RAM, PROM, address decode, etc.), and the software source code, in C, is available. The RS8953B Channel Unit line card includes the RS8953B and the Bt8370T1/E1 framer with on-chip LIU to furnish a complete solution for 1, 2 and 3 pair HDSLT1/E1 transport as well as channelized data access. BNC cards are provided to enable easy access to the RS8973 clocks and data stream for unchannelized SDSL applications and performance testing. In both channelized and unchannelized modes, variable data rate transmission from 144 Kbps to 2320 Kbps is supported with no hardware modifications.



### HTU-C or/ LTU

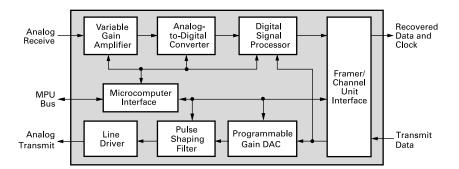
HTU-R or/ NTU

# **Distinguishing Features**

- Complete documentation package (HW and SW user guides, schematics, BOM, layout, app notes, etc.)
- Highly portable EVM and RS8973 device driver software source code available (in C)
- Complete PC interface and software to exercise RS8973 and RS8953B API features
- BNC cards included for unframed SDSL applications and performance testing



The RS8973EVM contains all necessary support equipment except for the requisite 5-volt power supply. A PC, line simulator and Bit Error Rate Tester (BERT) are also recommended, although a BERT is also incorporated into the EVM. The EVM user interface program allows convenient configuration and operation from a PC with a 386 MHz processor (or higher) and VGA display running DOS 3.0 (or better). Complete reference documentation includes the schematic, PCB layout, bill of materials, and external component specifications. Upon completion of the free licensing requirement, PROMs containing AutoBaud compliant software can be requested.



## RS8973 block diagram

#### **Product Features**

- Complete SDSL/HDSL terminals (COT and CPE)
- Complete documentation package (HW and SW user guides, schematics, BOM, layout, app notes, etc.)
- Supports data rates ranging from 144 Kbps to 2320 Kbps on one twisted pair via SW control
- Supports automatic rate adaptation including AutoBaud with optional ROM
- Fully compliant with standards for HDSL 2B1Q transmission
- Enabled with Conexant's ZipStartup™ algorithm to significantly reduce link activation time
- Meets ETSI TS 101 135 (formerly ETR 152) pulse template and PSD specifications at 784, 1168 and 2320 Kbps with no hardware modifications

- Highly portable EVM and RS8973 device driver software source code available (in C)
- Includes a built-in Bit Error Rate Tester (BERT)
- Allows full loop performance evaluation with only an additional line simulator
- Complete PC interface and software to exercise all RS8973 and RS8953B API features
- BNC cards included for unframed SDSL applications and performance testing

#### Applications

- Data access concentrators
- E1 and T1 HDSL transport
- Internet connectivity
- Voice and/or data pairgain systems
- N x 64 data transport
- ISDN BRI concentrators
- Cellular base station data links
- Campus modems

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#### **Further Information**

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