1010101010101010101010101010101010
1010101010101010101010101010101

CONEXANT

SCXV.22bis Modem
CX84100

2400 bps Modem with SmartDAA®3 for Embedded Applications

Conexant's broadband communications portfolio includes a comprehensive suite of semiconductor solutions that enable the digital home and information network. Conexant modem solutions deliver a high level of integration and robust performance. The SCXV.22bis modem device is a simplified design in a small form-factor, that allows for quick time-to-market. The SCXV.22bis modem supports worldwide DAA and data modes up to 2400bps.

Conexant's proprietary SmartDAA®3 line side device eliminates the need for costly analog transformers, relays and opto-isolators typically used in discrete DAA implementation for country-specific modem configurations. The result is a worldwide reduced system cost solution using a single bill of materials (BOM). The SmartDAA 3 is system-powered, meaning the DAA operates reliably without drawing power from the line. The advantage of system-powered DAA over line-powered DAA is the enhanced performance when line current is insufficient.

This low cost solution integrates microcontroller (MCU), serial host interface, ROM, RAM and SmartDAA system side device (SSD) functions onto a single die. The easy-to-use design is pin-to-pin compatible with the following high-speed solutions: Conexant SmartV.92/SmartV.34/SmartV.32bis Modem in a 28-pin CTLGA package.
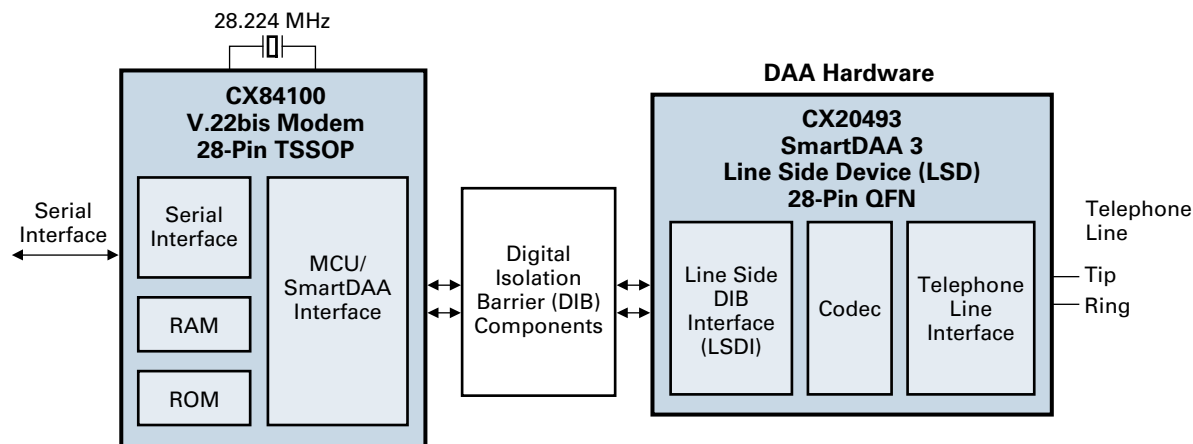
Applications
The Conexant SCXV.22bis Modem is ideal for embedded applications such as:
- POS Terminals
- Set-top Boxes
- Email Terminals
- ATM Machines

CX84100 Modem Features
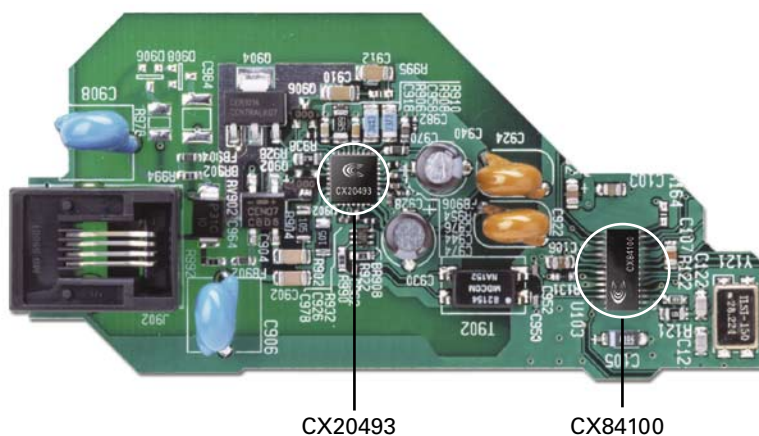- Modulations
  - ITU-T V.22bis (2400 bps)
  - V.22 and Bell 212A (1200 bps)
  - V.22 fast connect
  - V.21 and Bell 103 (300 bps)
  - V.23 1200/75 and 75/1200
  - V.23 Half Duplex (1200 bps)
- V.42 and MNP2-4 Error Correction
- Serial Interface
- Synchronous/Asynchronous Data Mode
  - Hardware and software flow control
- Supports AT Command Set
- Other Protocols
  - V.80 Synchronous Access Mode
  - V.23 Reverse Mode
- Type I and Type II Caller ID Decoding
- Worldwide DC Mask Compliance
- Enhanced DAA features
  - Digital Line Protection
  - Line-in-Use Detection
  - Extension Pickup Detection
  - Remote Hangup Detection
- Single +3.3V supply
- SCXV.22bis 28-pin TSSOP
- SmartDAA®3 28-pin QFN

Part Number	CX84100
Description	SCXV.22bis Modem

28.224 MHz

CX84100
V.22bis Modem
28-Pin TSSOP

Serial
Interface

Serial
Interface

MCU/
SmartDAA
Interface

RAM

ROM

Digital
Isolation
Barrier (DIB)
Components

DAA Hardware

CX20493
SmartDAA 3
Line Side Device (LSD)
28-Pin QFN

Line Side
DIB
Interface
(LSDI)

Codec

Telephone
Line
Interface

Telephone
Line

Tip

Ring

SCXV.22bis Modem Block Diagram

CX20493

CX84100

Actual Modem Area 64mm x 30mm

Advantages

- Pin-compatible to Smart V.92/V.34/ V.32bis in CTLGA package
- SmartDAA®3 technology
- Worldwide support
- Quick time-to-market
- Low-cost solution
- Small form-factor

Ordering Information

Marketing Name	Modem	SmartDAA®	Ordering Number
SCXV.22bis	CX84100-xx	CX20493-21	DS22-L100-1xx
Evaluation Board			RD01-D680-0xx
Data Sheet and Design Guide			Doc # 101979
AT Command Manual			Doc # 102000

C O N E X A N T

02-0631