



# Serial/Parallel Modem with Discrete DAA and Speakerphone Support

CX06833

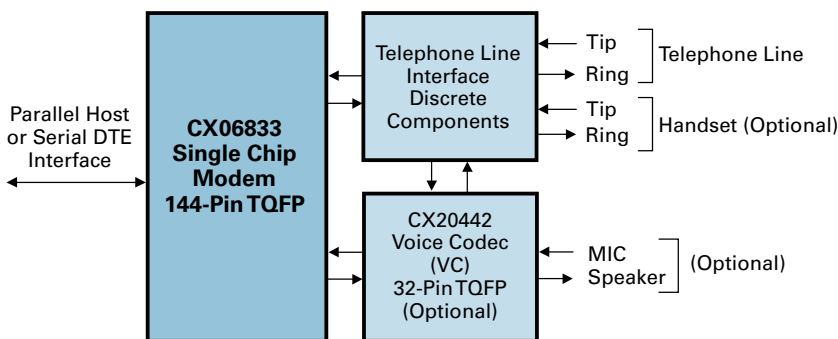
## Controller-Based Modem for Embedded Applications

Conexant's broadband communications portfolio includes a comprehensive suite of semiconductor solutions that enable the digital home and information network. Dial-up modems continue to be the predominant method of communication for the embedded market.

The CX06833 modem is ideal for country-specific embedded applications such as POS Terminals, Set-top Boxes, Metering, Building Automation, Gaming, Ruggedized Notebooks, Remote Site Management and any other application that requires a robust dial-up modem solution.

The device integrates the microcontroller, digital signal processor, memory and support for a discrete DAA. The CX06833 supports either serial or parallel host interface operation and it is available in a 144-pin TQFP package.

The CX06833 modem features data/fax/Telephone Answering Machine (TAM) and optional full-duplex speakerphone with up to 56 kbps analog data modem operation and 14.4 kbps fax modem operation. The V.92 modem includes Quick Connect, Modem-on-Hold™ and PCM Upstream. The CX06833 is also available in V.34 or V.32bis options.



**CX06833 Modem Major Interfaces**



## Distinguishing Features

- **Modulations**
  - ITU-T V.92, V.90 (SM56D models)
  - ITU-T V.34 (SM56D/SM336D)
  - ITU-T V.32bis, V.32, V.22bis, V.22 fast connect, V.23 and V.21
  - Bell 212A and Bell 103
  - V.250 and V.251 commands
  - V.80 synchronous access mode
- **V.92, V.34 and V.32bis options**
  - V.92 includes Modem-on-Hold™, Quick Connect and PCM Upstream
- **FastPOS (V.29) and V.22 fast connect**
- **TAM and optional full-duplex speakerphone**
- **V.44/V.42bis and MNP5 data compression**
- **V.42 and MNP2-4 error correction**
- **144-pin TQFP package**
- **Fax modem send and receive rates up to 14.4 kbps**
- **Quick time-to-market**
- **Low-cost solution**
- **Optional Pb-free devices available**

<b>Part Number</b>	CX06833
<b>Description</b>	Serial/Parallel Modem with Discrete DAA and Speakerphone support



## CX06833 Features

- **Data modem**
  - ITU-T V.92, V.90 (SM56D models), V.34 (SM56D and SM336D models), V.32bis, V.32, V.22bis, V.22, V.23, and V.21; Bell 212A and Bell 103
  - Quick Connect, Modem-on-Hold™ and PCM Upstream functions (SM56D models)
  - V.250 and V.251 commands
- **Data compression and error correction**
  - V.44 data compression
  - V.42bis and MNP 5 data compression
  - V.42 LAPM and MNP 2-4 error correction
- **Fax modem send and receive rates up to 14.4 kbps**
  - V.17, V.29, V.27 ter, and V.21 channel 2
  - EIA/TIA 578 Class 1 and T.31 Class 1.0
  - FastPOS (V.29) and V.22 fast connect
- **V.80 synchronous access mode supports host-controlled communication protocols with H.324 interface support**
- **Interfaces to optional external ROM/flash ROM, RAM, and/or serial EEPROM**
  - Supports custom firmware
- **Data/Fax/Voice call discrimination**
- **Support for many country-specific DAA configurations**
  - Caller ID detection for many countries
  - Call progress, blacklisting
  - Internal ROM includes default values for 29 countries
  - Additional modified country profiles can be stored in internal SRAM or optional serial EEPROM
- **Caller ID detect**
  - On-hook Caller ID detection
  - Off-hook Call Waiting Caller ID detection during data mode in V.92, V.90, V.34, V.32bis, and V.32
- **Distinctive ring detect**
- **Modem customization available through patch code that can be stored in optional serial EEPROM or internal SRAM**
- **Telephony/TAM**
  - V.253 commands
  - 2-bit and 4-bit Conexant ADPCM, 8-bit linear PCM, and 4-bit IMA coding
  - 8 kHz sample rate
  - Concurrent DTMF, ring, and Caller ID detection
- **Full-duplex speakerphone (FDSP) mode using optional CX20442 Voice Codec (S models)**
  - Microphone and speaker interface
  - Telephone handset or headset interface
  - Acoustic and line echo cancellation
  - Microphone gain and muting
  - Speaker volume control and muting
- **Built-in host/DTE interface**
  - Parallel 16550A UART-compatible interface up to 230.4 kbps
  - Serial ITU-T V.24 (EIA/TIA-232-E) logical interface up to 115.2 kbps
- **Direct mode (serial DTE interface)**
- **Flow control and speed buffering**
- **Automatic format/speed sensing**
- **Serial async/sync data; parallel async data**
- **Thin packages support low profile designs (1.6 mm max. height)**
  - CX06833: 144-pin TQFP
  - CX20442 VC: 32-pin TQFP
- **+3.3V operation with +5V tolerant digital inputs**
- **Typical power use**
  - CX06833: 161 mW (Normal Mode); 52.8 mW (Sleep Mode)
  - CX20442 VC: 5 mW (Normal Mode)

## Conexant Product Portfolio

The company's broad portfolio of semiconductor products also includes client-side DSL, cable, and dial-up modem solutions; fiber optic system-on-chips; broadcast video encoders and decoders; digital set-top box components and systems solutions; and IEEE 802.11a/b/g/n-compliant WLAN chipsets. Additional products include a complete line of asymmetric and symmetric DSL central office solutions, which are used by service providers worldwide to deliver broadband data, voice, and video over copper telephone lines.

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