

Serial/Parallel Modem with Discrete DAA and Speakerphone Support

CX06833

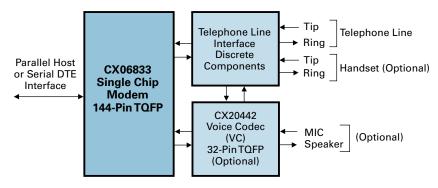
Controller-Based Modem for Embedded Applications

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-pinTQFP package
- Fax modem send and receive rates up to 14.4 kbps
- Quick time-to-market
- · Low-cost solution
- Optional Pb-free devices available

Part Number CX06833

Description

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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Doc# PBR-200236

