

V.22 bis Single Chip Modem for embedded applications



Description

The 73M2901CE is a single chip low speed modem that supports basic modem functionality. The integrated data pump (supporting modulations up to ITU-T V.22 bis), controller, and analog front end (AFE) are designed specifically for cost sensitive embedded applications. The modem reduces external component count and cost by incorporating features like parallel phone detect, Line-In-Use and ring detection without the need for additional external components. Programmable configuration options make this device highly adaptable to a wide variety of applications; including satellite set-top box, point-of-sale terminals, automatic teller machines, remote monitoring devices, metering devices, vending machines and smart card readers.

KEY FEATURES:

Integrated Data Pump, Controller and Analog Front End

BENEFITS:

- Provides a set of low speed modulation methods that are commonly used globally for PSTN communication. Supports standard DTE speeds from 300 bps up to 9600 bps.
- Controller supports a complete "AT" command set, inactivity timeout, host access to program RAM provided and user programmable general purpose I/O
- AFE provides multiple supporting features such as Worldwide Caller-ID, DTMF generation and detection, Parallel-pick up and line in use detection and SMS support.

External DAA circuitry is optimized for best cost structure for single and multiple country PSTN access compliance

- Global DAA compliance with FCC, ETSI 203, JATE and other PTT standards with BOM optimized for country and application.

Robust and reliable solution for embedded systems designed for normal and extreme environments

- Available a choice of 32-Pin QFN or 32-Pin TQFP packages
- 3.0V – 3.6V operating voltage
- Industrial Temperature ranges

Easy path to a soft modem transition

- Is pin for pin compatible and can be replaced by Teridian's 73M1903 Analog Front End device. Supports a transition path where hard modem can be replaced by a soft modem solution as an overall system cost reduction.

The 73M2901CE sets new standards for cost sensitive applications requiring specific low speed embedded modem functionality and performance

Teridian Semiconductor Corporation is a modem and Silicon DAA technology pioneer and patent holder with a long history of development and innovation including the capacitive isolation barrier technology licensed to 3rd parties and has been globally deployed in low speed and high speed analog modems.



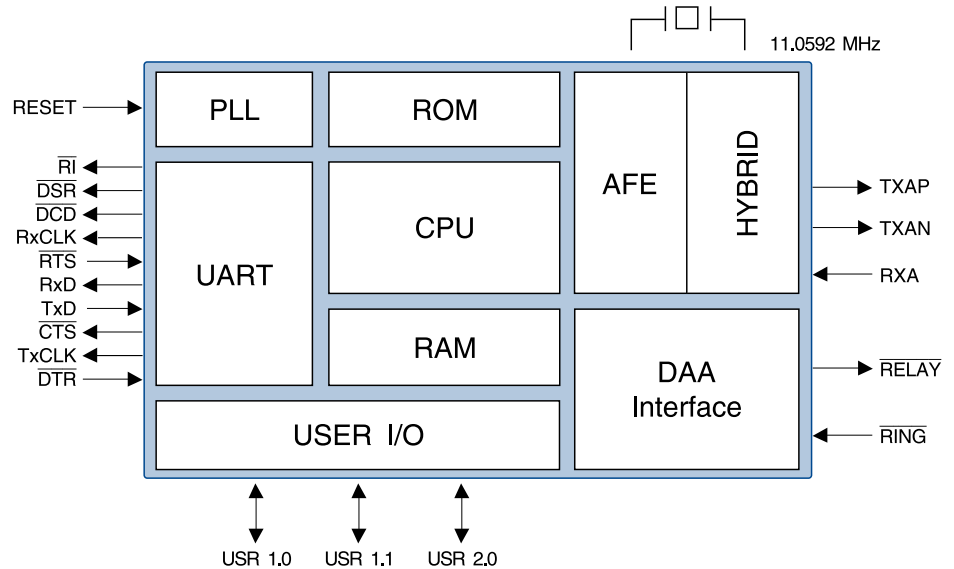
Applications

- Satellite Set Top Boxes
- Pay phones
- Point of Sale Terminals
- Automatic Teller Machines
- Smartcard Readers
- Embedded modem applications such as medical and industrial telemetry
- Utility Meters

Additional Features

- > Worldwide Caller ID (Type I and II)
 - FSK demodulation
 - DTMF demodulation
 - Line reversal detection
 - Triggered CID decoding
 - Permanent CID decoding
 - Continuous/Snoop mode
- > Ring Detection
 - Enhanced Ring detection mode option eliminates external components over 73M2901CL
 - Supports classic hardware detection mode
- > Line In Use and Parallel Pick-up detection
 - Phone line voltage drop or energy detection
 - Optional energy detection mode with no additional hardware
- > Low power modes
 - Sleep mode
 - Power down mode
 - Wake-on-Ring
- > GPIO for user programmable I/O ports
Operating Environment
 - 3.3V supply voltage
 - Industrial/commercial temperature grades
 - 32-pin TQFP, RoHS package
 - 32-pin QFN, RoHS package
- > Host serial interface(V.24)
- > Certification Support
 - Programmable to support any country: US, ETSI 203, Japan, Australia, etc.
- > V.42/V.42bis/MNP2-4 Support
 - Error correction and/or data compression support
 - Source code provided for integration into host processor

73M2901CE Block Diagram



Ordering Information

PART DESCRIPTION	ORDERING NUMBER
73M2901CE 32-pin QFN, Lead Free	73M2901CE-IM/F
73M2901CE 32-pin QFN, Lead Free, Tape and Reel	73M2901CE-IMR/F
73M2901CE 32-pin Thin Quad, Flat Pack, Lead Free	73M2901CE-IGV/F
73M2901CE 32-pin Thin Quad, Flat Pack, Lead Free, Tape and Reel	73M2901CE-IGVR/F