

Z02215 Single-Chip Modem

A single-chip modem that simplifies design and certification

ZiLOG's single-chip modem is a highly integrated modem solution for remote data transmission, transaction processing, and telemetry. The DSP-based Z02215 simplifies modem design and PTT certifications, enabling you to focus on application design, rather than modem design.

ZiLOG provides a total solution

The Z02215 includes the modem controller, data pump, and analog front end, all in one package. It solves the lengthy modem design and approval process by taking the guesswork out of software design. It is a major improvement over the previous method of designing with a separate modem controller.

ZiLOG provides a software utility called Diplomat™ to speed system development by allowing you to make controller code changes quickly. Parameter tables for 12 countries and CTR21 are provided, which give you a huge advantage when doing modem precertification testing. Design and certification times can be reduced 50 percent or more by using the Z02215 and ZiLOG's software tools.

The Z02215 is specifically designed for transaction processing applications such as point-of-sale and smart card terminals, set-top boxes, and security applications. It can also be applied to applications that require data transmission and reception of up to 2400bps. The Z02215 includes a V.22bis data pump with improved analog front end and a Z80-style microprocessor that serves as the modem controller. System costs are reduced since all of the RAM and ROM necessary to operate the modem are included on-chip.

Benefits

- Proven technology
- Reduce time to market by 50%
- Simplify global modem certifications
- Easy to integrate
- Quick design time
- Small footprint with extended temperature capabilities

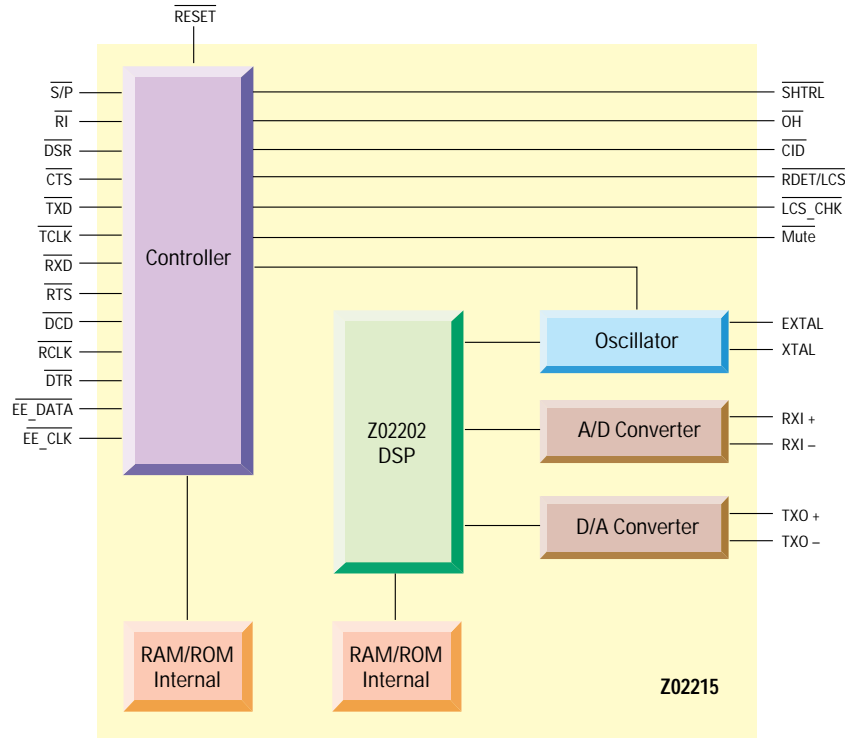


Features

- Complete modem integrated circuit with integrated controller, data pump and Analog Front End (AFE) with active hybrid
- Data modem throughput to 2400 bps
 - ITU V.22bis, V.23, V.22, V.21
 - Bell 212A, Bell 103, Bell 202, Bell 202T
 - V.23 with Minitel line reversal
- V.14 asynchronous to synchronous conversion
- Speed matching and RTC/CTS flow control between the modem and the terminal
- Line-in-use detection before connection, and Pick-up detection during connections
- Supports tone or pulse dialing
- Call progress monitoring
- Programmable transmit attenuation and selectable receive threshold
- Dynamic power management
- North American Type-I Caller ID
- 44-Pin VQFP footprint



Z02215 Block Diagram



Applications

- Transaction processing
- Point-of-sale systems
- Smart card terminals
- Set-top boxes
- Security systems
- Remote telemetry
- Remote diagnostics

Product	Part Number	Description	Temperature Range
Z02215	Z0221524ASCR4508	2400bps Single-Chip Modem	Standard Temperature 0°C to 70°C
Z02215	Z0221524AECD4508	2400bps Single-Chip Modem	Extended Temperature -40°C to +85°C
Z02915	Z0291524ASCRxxxx	9600bps* Single-Chip Modem	Standard Temperature 0°C to 70°C
Z02915	Z0291524AECDxxxx	9600bps* Single-Chip Modem	Extended Temperature -40°C to +85°C

* 9600bps operation provided from a ZiLOG-proprietary implementation of V.29

Evaluation Tools

Z0221500ZCO Evaluation Kit



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