Z0220100ZCO

MODEM EVALUATION KIT

FEATURES

- Supported Devices

Part Number	Package Type
Z02201	44-Pin PLCC
Z02205	28-Pin SOIC

- Z02201 Modem Evaluation Board Includes:
  - Supported Protocols: V.22bis, V.22, V.21, V.23, Bell 103, Bell 212A
  - AT Commands for Modem Control and Configuration
  - Shipped with North America-style DAA
  - Socket for DAA Module Allows User-Defined DAA
  - Eye Pattern Port
  - One RS-232C Serial Port with DB25 Connectors
- User Manual for Demonstration Board
- "Diplomat" PC-based Configuration Utility to Allow Configuration of Modem Controller Code for Worldwide Country Support
- Object Code to be Modified by the Diplomat Configuration Utility

GENERAL DESCRIPTION

The Modem Evaluation Kit (Z0220100ZCO) is a general-purpose platform that allows users to evaluate the capabilities and operation of the Z02201 Modem DSP and Analog Front End, and the Z02205 Modem controller. The kit contains an assembled circuit board, software, and documentation to support software and hardware development for low speed embedded modem applications.

The demonstration board provides connections to the phone network (RJ11) and to a PC (RS232). Eye pattern output allows the display of the modem signal on an X-Y oscilloscope. LED indicators provide a visual display of various modem signals. A speaker provides an audible monitor of modem handshake and dialing tones.

The Diplomat PC-based Configuration utility allows the user to configure modem controller code to meet the requirements in various countries. Look-up tables are provided that enable modification of dial modifiers and call progress parameters to accommodate the needs of various phone networks.

SPECIFICATIONS

Dimensions
Approximately 5 inches by 7 inches

Power Requirements
+12V AC ±5%, 1 A (typical)

Serial Interface
RS-232C

Environmental Operating Conditions
Operating Temperature: +20°C ±10°C

Relative Humidity: 10-90%, non-condensing

KIT CONTENTS

Hardware

- Modem Evaluation Card including modem DSP code in on-chip ROM, and modem controller code in on-chip ROM
- 12VAC power converter (110V wall supply). Connector is 2.1mm (inner diameter) by 5.5mm (outer diameter) female type
- RJ11 Phone Cord (6 feet length)

3.5” High Density Floppy Disk

- Utility Program for configuring modem controller code for use in different countries
- Hex Object Code to be Modified
- Sample Datapump Driver Code Written in C
- read.me file includes instructions for using the eval kit

Documentation

- Evaluation Kit User Manual
- Low Speed Embedded Modem Chipsets DataBook
- Schematics of the demonstration board in OrCAD for Windows
- “Print files” of board schematic
- Net list of evaluation board
- Registration Card

ADDITIONAL REQUIRED AND OPTIONAL ITEMS

Required Items Not Supplied with Kit

- IBM PC (or compatible) with the following minimum[1] recommended configuration:
  - 386 CPU, 33 MHz
  - 4 MB of RAM
  - Hard disk drive (1 MB free space)[2]
  - VGA video adapter
  - 3.5-inch high-density floppy disk drive
  - RS-232C communications port
  - Windows® 3.1 or Windows 95

Notes:

1. For increased performance we recommend a 486- or Pentium-based machine operating at 66 MHz or faster with 8 MB of RAM.
2. Additional disk space may be required for terminal emulator program(s), C compiler, and user-generated source files.

- A terminal emulator program such as Windows Terminal, HyperTerm™ or ProComm™ running on the PC
- RS-232C cable to connect the card to the host PC
- 25-pin to 9-pin adaptor

Optional Items Not Supplied with Kit

- CP Clare DAA Modules

  CP Clare Corporation

  78 Cherry Hill Drive

  Beverly, MA 01915-1048

  TEL: 978-524-6700

  FAX: 978-524-4700

  1-800-CP-CLARE

  NET: www.cpclare.com
- Z89C50 ICEBOX Z8 Emulator for modifications to modem controller code and to program Z02205 Modem Controller
- Additional jumper wires and shunts
- C-compiler for modem controller code -- Z8C Code Development System (available from Bytecraft Limited):

  Bytecraft Limited

  421 King Street North

  Waterloo, Ontario, Canada N2J 4E4

  TEL: 1-519-888-6911
  FAX: 1-519-746-6751
  NET: www.bytecraft.com

PRECAUTIONS AND LIMITATIONS

There are no known anomalies with the Evaluation Card itself. However, there a small number of anomolies with the Z02201 device included on the board. The errata is listed below.

The Z02201 chip on the card is mounted in a socket to allow replacement with newer versions of the device as they become available. For ease of replacement, Zilog recommends the use of the AMP extraction tool noted above.

Known Anomalies With Z02201 R3470

There is only one currently known problem on the Z02201, ROM code R3470:

1. DPBUSY bit is not properly set during timed DTMF operation. As this is a new feature in the R3470 code set, it is not a problem for those users that are used to the feature set of previous ROM codes. A microcontroller workaround is available.

Development Projects:

Customer is cautioned that while reasonable efforts will be employed to meet performance objectives and milestone dates, development t is subject to unanticipated problems and delays. No production release is authorized or committed until the Customer and Zilog have agreed upon a Customer Procurement Specification for this project.

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