

Features

- Allows Mitel customers to evaluate the MT90812 device
- Demonstrates the advantages of Mitel Telecom solution
- Shows the power of the MEB90812 on a single board solution
- Eases bench-top prototyping to reduce development risk
- Provides a highly functional graphical user interface (GUI) in Windows 95

Ordering Information

MEB90812A-P	with Power Supply
MEB90812A	without Power Supply

Introduction

This document describes a kit containing an evaluation board, a software and a user's manual to be provided to Mitel MT90812 customers.

The package containing the evaluation board, windows-based GUI and user's manual is referred to as the MEB90812 Evaluation Kit, from now on in this document.

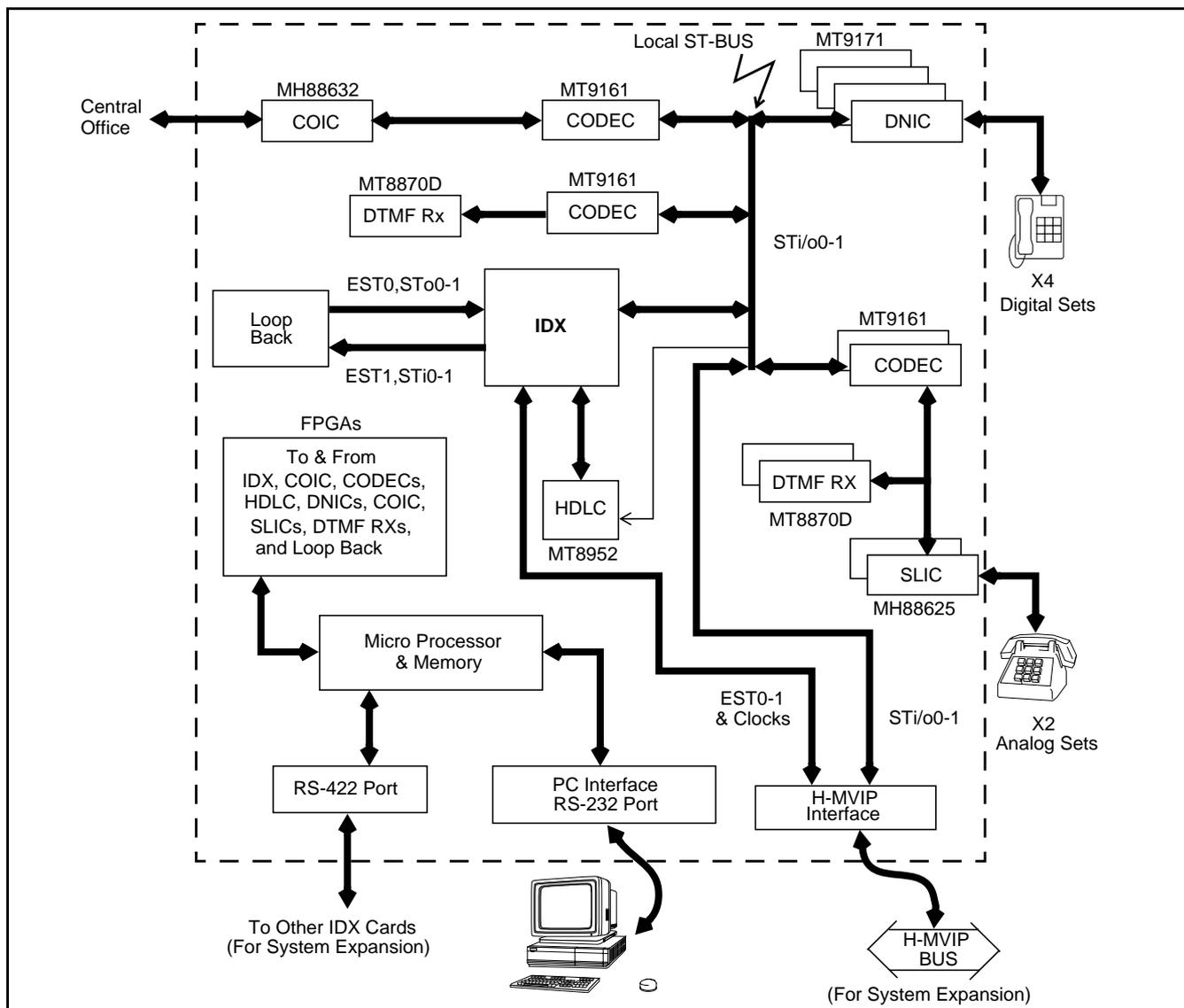


Figure 1 - MEB90812 Functional Block Diagram

Hardware

Figure 1 depicts the functional block diagram of the MEB90812 evaluation board. The hardware is a single board computer with the embedded software and the following hardware features:

- One central office trunk interface (COIC)
- Two analog line interfaces (SLIC) for analog telephone sets (POTS)
- Four digital line interfaces (DNIC) for digital sets
- One HDLC protocol controller
- Three DTMF receivers
- One RS-232 port, a 68302 processor, and memory for communications between a personal computer and on board devices
- One RS-422 port and an H-MVIP header

The MEB90812 evaluation board can be partitioned into three sections: IDX, peripherals, and the microprocessor and its peripherals. The evaluation board provides a platform for the user to examine and exercise the features of the IDX with peripherals such as analog sets, digital sets, central office, and an HDLC controller. The IDX provides the digital cross point switching between the peripherals on the local ST-BUS streams with a data rate at 2.048 Mb/s. The IDX also provides the integration of several telephony functions that are required in a digital key telephone system.

The microprocessor on the board performs the tasks of communications between a personal computer and the on-board devices. System expansion with additional MEB90812 boards is easily achieved by cascading up to four boards via the H-MVIP header. With an expanded system, data and voice channels can be transferred from one evaluation board to another over the H-MVIP bus at a rate of 2.048, 4.096, or 8.192 Mb/s with the switching capability of the IDX on each evaluation board. A single personal computer can be used to control the devices on all four boards.

Software

Operation of the evaluation board is performed via a graphically intuitive user interface (windows console) with the following features:

- Register view and modification window
- Monitor window to examine the content of any registers and memory locations of the IDX as well as other devices on the board at a specific time interval
- Various windows to examine and view the IDX's telephony functions. The related windows are as follows:
 - Connections
 - Conferences
 - Timing
 - Tone Generation
 - DBRT Receive
 - DBRT Transmit
 - Energy Detect
 - FSK Transmitter and Ringer
 - Pre-defined Tests
 - Macro editor
 - POTS and Central Office

Primitive level configuration allows access to the various board device registers. Functional level configuration allows the setting up of connections and combines primitive-level register settings to demonstrate a function. The console also facilitates such housekeeping chores as communications setup and macro editing. The Pre-defined Tests windows provide test configurations to exercise the functionality of the IDX and other devices on the evaluation board.

MEB90812 Evaluation Kit Contents

The MEB90812 kit consists of the following items:

- MEB90812 evaluation board
- Windows console software
- User's manual
- Power supply (optional)

Warranty Terms

As per Section 6.0, Warranty and Limitation of Liability, in Terms and Conditions of Sales.

Notes:



<http://www.mitelsemi.com>

World Headquarters - Canada

Tel: +1 (613) 592 2122
Fax: +1 (613) 592 6909

North America

Tel: +1 (770) 486 0194
Fax: +1 (770) 631 8213

Asia/Pacific

Tel: +65 333 6193
Fax: +65 333 6192

**Europe, Middle East,
and Africa (EMEA)**

Tel: +44 (0) 1793 518528
Fax: +44 (0) 1793 518581

Information relating to products and services furnished herein by Mitel Corporation or its subsidiaries (collectively "Mitel") is believed to be reliable. However, Mitel assumes no liability for errors that may appear in this publication, or for liability otherwise arising from the application or use of any such information, product or service or for any infringement of patents or other intellectual property rights owned by third parties which may result from such application or use. Neither the supply of such information or purchase of product or service conveys any license, either express or implied, under patents or other intellectual property rights owned by Mitel or licensed from third parties by Mitel, whatsoever. Purchasers of products are also hereby notified that the use of product in certain ways or in combination with Mitel, or non-Mitel furnished goods or services may infringe patents or other intellectual property rights owned by Mitel.

This publication is issued to provide information only and (unless agreed by Mitel in writing) may not be used, applied or reproduced for any purpose nor form part of any order or contract nor to be regarded as a representation relating to the products or services concerned. The products, their specifications, services and other information appearing in this publication are subject to change by Mitel without notice. No warranty or guarantee express or implied is made regarding the capability, performance or suitability of any product or service. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date and has not been superseded. Manufacturing does not necessarily include testing of all functions or parameters. These products are not suitable for use in any medical products whose failure to perform may result in significant injury or death to the user. All products and materials are sold and services provided subject to Mitel's conditions of sale which are available on request.

M Mitel (design) and ST-BUS are registered trademarks of MITEL Corporation
Mitel Semiconductor is an ISO 9001 Registered Company
Copyright 1999 MITEL Corporation
All Rights Reserved
Printed in CANADA

TECHNICAL DOCUMENTATION - NOT FOR RESALE